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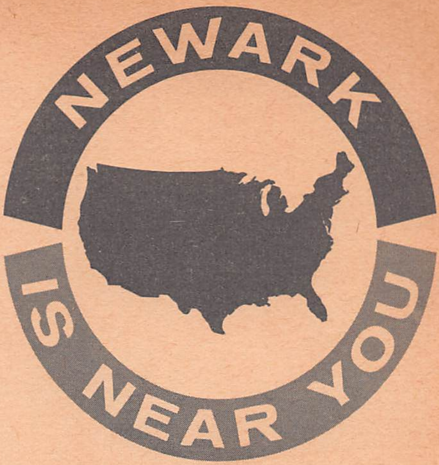

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AMP —Amperex
BEN —Bendix
GE —General Electric
HOF —Hoffman
HUG —Hughes Aircraft
INT —International Rectifier
IT&T —International Tel. & Tel.
MOT —Motorola
OHM—Ohmite
RCA —Radio Corp. of America
RAY —Raytheon
SAR —Sarkes-Tarzian
SPR —Sprague
SYL —Sylvania
TI —Texas Instruments
WES —Westinghouse

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Type No.	Mil. Spec. Mil-	Mfr.	1-99	100-999	1000-up
JAN 1N21B	E-1/656	SYL	.68	.54	.49
JAN 1N21C	E-1/657	SYL	1.02	.81	.73
JAN 1N21WE	E-1/1115	SYL	9.35	7.40	....
JAN 1N23B	E-1/618	SYL	.67	.54	.49
JAN 1N23CR	E-1/550A	SYL	1.41	1.12	1.01
JAN 1N23C	E-1/295B	SYL	1.02	.81	.73
JAN 1N23WE	E-1/1117A	SYL	6.60	5.20	....
JAN 1N25	E-1/658	SYL	3.53	2.74	....
JAN 1N26	E-1/659B	SYL	6.50	5.10	....
JAN 1N26A	E-1/156C	HUG	.45	.34	....
JAN 1N27A	E-1/157C	HUG	.89	.68	....
JAN 1N31	E-1/661A	SYL	7.05	5.53	....
JAN 1N32	E-1/27A	SYL	11.61	9.30	....
JAN 1N53	E-1/487B	SYL	23.20	18.60	....
USN 1N55A	E-1/497B	SYL	2.51	1.97	1.58
JAN 1N69A	E-1/142D	SYL	.58	.45	.36
JAN 1N70A	E-1/154D	SYL	1.01	.79	.63
JAN 1N78	E-1/662A	SYL	6.50	5.10	....
JAN 1N81A	E-1/155D	SYL	.75	.59	.47
USA 1N82A	E-1/1299	SYL	.91	.71	.61
USN 1N93	E-1/895	GE	3.45	2.30	....
JAN 1N126A	E-1/156C	SYL	.44	.34	.27
JAN 1N126A	E-1/156C	HUG	.45	.34	....
JAN 1N127A	E-1/157C	SYL	.89	.70	.59
JAN 1N127A	E-1/157C	HUG	.89	.68	....
JAN 1N128	E-1/158B	SYL	.48	.38	.30
JAN 1N128	E-1/158B	HUG	.55	.41	....
JAN 1N198 Point contact	E-1/700	SYL	.51	.40	.32
JAN 1N198 Gold bonded	E-1/700	SYL	.51	.40	.32
JAN 1N198	E-1/700	HUG	.51	.39	....
USA 1N249B	S-19500/134	RCA	3.36	2.20	....
USA 1N249B	S-19500/134	GE	8.18	5.45	....
USA 1N250B	S-19500/134	RCA	5.69	3.80	....
USA 1N250B	S-19500/134	GE	10.45	6.95	....
JAN 1N251	S-19500/188	SYL	.70	.55	.44
JAN 1N251	E-1/1023	TI	1.90	1.20	....
JAN 1N253	E-1/1024A	GE	1.28	.89	....
JAN 1N253	S-19500/194	TI	1.28	.85	....
JAN 1N254	S-19500/194	TI	1.34	.89	....
JAN 1N255	E-1/990B	GE	2.06	1.37	....
JAN 1N255	S-19500/194	TI	2.06	1.37	....
JAN 1N256	E-1/991B	GE	2.94	1.96	....
JAN 1N256	S-19500/194	TI	2.94	1.96	....
JAN 1N270	S-19500/200	SYL	.50	.39	.31
JAN 1N270	S-19500/200	HUG	.75	.56	....
JAN 1N272	S-19500/192	HUG	.70	.53	....
JAN 1N276	S-19500/192	SYL	.43	.34	.27
JAN 1N277	E-1/993A	HUG	.93	.70	....
JAN 1N277M	S-19500/201	SYL	.59	.46	.37
JAN 1N281	E-961	HUG	.56	.42	....
USAF 1N315	E-1/1088	GE	3.75	2.50	....
USAF 1N429	E-1/1134A	HOF	9.00	6.75	....
USN 1N430	....	INT	26.10	25.20	....
USAF 1N430	E-1/1060	HOF	27.00	22.95	....
JAN 1N457	E-1/1026	TI	2.40	1.85	....
JAN 1N457	S-19500/193A	HUG	1.00	.75	....
JAN 1N457	S-19500/193A	SYL	.45	.36	.29
JAN 1N458	E-1/1026	TI	2.60	2.08	....
JAN 1N458	S-19500/193A	HUG	1.25	.94	....
JAN 1N458	S-19500/193A	SYL	.51	.40	.32
JAN 1N459	E-1/1026	TI	3.00	2.40	....
JAN 1N459	S-19500/193A	HUG	1.50	1.13	....
JAN 1N459	S-19500/193A	SYL	.66	.51	.41
USN 1N483B	S-19500/118	TI	2.60	1.90	....
USN 1N483B	S-19500/118	HUG	1.44	1.08	....
USN 1N483B	S-19500/118	SYL	.69	.54	.43
USN 1N485B	S-19500/118	HUG	2.40	1.80	....
USN 1N486B	S-19500/118	HUG	2.88	2.16	....
JAN 1N538	E-1/1084A	GE	.75	.50	....
JAN 1N538	E-1/1084A	TI	.75	.50	....
JAN 1N538	E-1/1084A	MOT	.87	.55	....
JAN 1N538	E-1/1084A	RCA	.63	.42	....
USAF 1N538	E-1/1089	GE	.75	.50	....
JAN 1N540	E-1/1085A	GE	1.05	.70	....
JAN 1N540	E-1/1085A	TI	1.05	.70	....
JAN 1N540	E-1/1085A	MOT	1.24	.80	....
JAN 1N540	E-1/1085A	RCA	.81	.54	....
USAF 1N540	E-1/1089	GE	1.05	.70	....
JAN 1N547	E-1/1083A	GE	1.52	1.01	....
JAN 1N547	E-1/1083A	TI	1.52	1.01	....
JAN 1N547	E-1/1083A	MOT	1.81	1.20	....
JAN 1N547	E-1/1083A	RCA	1.19	.79	....
USAF 1N547	E-1/1089	GE	1.52	1.01	....
USA 1N643	E-1/1171	HUG	3.50	2.63	....
USA 1N643	E-1/1171	TI	2.20	1.62	....
USAF 1N645	E-1/1143	HUG	2.26	1.70	....
USAF 1N645	E-1/1143	TI	1.55	1.00	....
USAF 1N646	E-1/1143	HUG	2.88	2.16	....
USAF 1N646	E-1/1143	TI	2.25	1.21	....
USAF 1N647	E-1/1143	HUG	3.59	2.69	....
USAF 1N647	E-1/1143	TI	3.25	1.56	....
USAF 1N648	E-1/1143	HUG	4.35	3.26	....
USAF 1N648	E-1/1143	TI	3.95	2.28	....
USAF 1N649	E-1/1143	HUG	5.00	3.75	....
USA 1N649	E-1/1143	TI	4.60	3.05	....
USA 1N658	E-1/1160	HUG,	3.75	2.82	....
USA 1N662	E-1/1139	HUG	1.20	.90	....
USA 1N662	E-1/1139	TI	1.14	.80	....
USA 1N663	E-1/1140	HUG	1.60	1.20	....
USA 1N663	E-1/1140	TI	1.54	1.13	....
USA 1N716	E-1238	HOF	3.65	2.65	....
USA 1N718	E-1238	HOF	3.65	2.65	....
USA 1N722	E-1238	HOF	3.65	2.65	....
USN 1N746A	S-19500/127	HUG	3.60	2.70	....
USN 1N747A	S-19500/127	HUG	3.60	2.70	....
USN 1N748A	S-19500/127	HUG	3.60	2.70	....
USN 1N749A	S-19500/127	HUG	3.60	2.70	....
USN 1N750A	S-19500/127	HUG	3.60	2.70	....
USN 1N751A	S-19500/127	HUG	3.60	2.70	....
USN 1N752A	S-19500/127	HUG	3.60	2.70	....
USN 1N753A	S-19500/127	HUG	3.60	2.70	....
USN 1N754A	S-19500/127	HUG	3.60	2.70	....
USN 1N755A	S-19500/127	HUG	3.60	2.70	....
USN 1N756A	S-19500/127	HUG	3.60	2.70	....
USN 1N757A	S-19500/127	HUG	3.60	2.70	....
USN 1N758A	S-19500/127	HUG	3.60	2.70	....
USN 1N759A	S-19500/127	HUG	3.60	2.70	....
USN 1N914	S-19500/116	TI	2.40	1.90	....
JAN 1N933	S-19500/119	HUG	1.04	.78	....
JAN 1N933M	S-19500/119A	SYL	1.12	.85	.70
USN 1N1124A	S-19500/104	TI	3.58	2.92	....
USN 1N1126A	S-19500/104	TI	6.26	5.13	....
USN 1N1128A	S-19500/104	TI	11.01	8.99	....
USAF 1N1199	E-1/1108	HUG	4.40	2.94	....
USAF 1N1199	E-1/1108	GE	3.75	2.50	....
USAF 1N1200	E-1/1108	HUG	4.95	3.30	....
USAF 1N1200	E-1/1108	GE	3.98	2.65	....
USAF 1N1201	E-1/1108	HUG	5.95	3.98	....
USAF 1N1201	E-1/1108	GE	5.55	3.70	....
USAF 1N1202	E-1/1108	HUG	7.00	4.67	....
USAF 1N1202	E-1/1108	GE	7.05	4.70	....
USAF 1N1203	E-1/1108	HUG	9.00	6.00	....
USAF 1N1203	E-1/1108	GE	10.28	6.85	....
USAF 1N1204	E-1/1108	HUG	12.20	8.15	....
USAF 1N1204	E-1/1108	GE	12.23	8.15	....
USAF 1N1205	E-1/1108	HUG	15.40	10.30	....
USAF 1N1205	E-1/1108	GE	16.30	10.85	....
USAF 1N1206	E-1/1108	HUG	18.60	12.45	....
USA 1N1206	E-1/1108	GE	19.65	13.10	....
USA 1N1614	S-19500/162	GE	6.00	4.00	....
USA 1N1615	S-19500/162	GE	9.00	6.00	....
USA 1N1616	S-19500/62	GE	12.00	8.00	....
USA 1N1731	S-19500/142	HUG	7.93	6.99	....
USA 1N1733	S-19500/142	HUG	14.00	12.24	....
USA 1N1734	S-19500/142	HUG	16.00	13.50	....
USA 1N2135A	S-19500/134	GE	13.58	9.05	....
USA 1N2135A	S-19500/134	RCA	9.08	6.05	....

Type No.	Mil. Spec. Mil-	Mfr.	1-24	25-99	100-up
USA 1N2970B	S-19500/124	HOF	11.80	11.05	8.85
USA 1N2971B	S-19500/124	HOF	11.80	11.05	8.85
USA 1N2972B	S-19500/124	HOF	11.80	11.05	8.85
USA 1N2973B	S-19500/124	HOF	11.80	11.05	8.85
USA 1N2977B	S-19500/124	HOF	11.85	11.05	8.85
USA 1N2979B	S-19500/124	HOF	11.85	11.05	8.85
USA 1N2980B	S-19500/124	HOF	11.85	11.05	8.85
USA 1N2982B	S-19500/124	HOF	11.85	11.05	8.85
USA 1N2984B	S-19500/124	HOF	11.85	11.05	8.85
USA 1N2985B	S-19500/124	HOF	11.85	11.05	8.85
USA 1N2986B	S-19500/124	HOF	11.85	11.05	8.85
USA 1N2990B	S-19500/124	HOF	11.85	11.05	8.85

Type No.	Mil. Spec. Mil-	Mfr.	1-99	100-999	1000-up
USAF 2N43A	T-19500/18	GE	5.25	3.50	....
USAF 2N44A	T-19500/6	GE	4.95	3.50	....
USAF 2N78A	S-19500/90	GE	3.10	2.10	....
USN 2N117	T-19500/35	TI	8.45	5.65	....
JAN 2N118	T-19500/2	TI	9.15	6.35	....

See Pages 25 to 69 for Complete Listings of Semiconductors by Mfrs.

SEMICONDUCTOR DIRECTORY

MILITARY TYPES (Cont.)

Type No.	Mil Spec Mil-	Mfr.	1-99	100-999	1000-Up
USN 2N119	T-19500/35	TI	11.45	7.55	....
JAN 2N128	....	SPR	6.65	4.90	....
USAF 2N167A	S-19500/11A	GE	5.65	3.78	....
JAN 2N174	T-19500/13A	MOT	4.50	3.00	....
JAN 2N174	T-19500/13A	RCA	7.67	5.11	....
JAN 2N220	T-19500/1	RCA	4.54	3.03	....
JAN 2N240	....	SPR	5.90	4.35	....
USA 2N274	T-19500/26	HUG	3.30	2.20	....
JAN 2N284	T-19500/27C	RCA	3.71	2.48	....
JAN 2N326	S-19500/40A	SYL	14.10	9.40	....
USA 2N328A	S-19500/106	HUG	6.65	5.00	....
USA 2N329A	S-19500/106	HUG	13.35	10.00	....
JAN 2N331	T-19500/4A	MOT	1.80	1.20	....
USN 2N332	T-19500/37A	TI	4.95	3.30	....
USN 2N332	T-19500/37A	GE	4.95	3.30	....
USN 2N333	T-19500/37A	TI	4.95	3.30	....
USN 2N333	T-19500/37A	GE	4.95	3.30	....
USN 2N334	T-19500/37A	TI	4.95	3.30	....
USN 2N334	T-19500/37A	GE	4.95	3.30	....
USN 2N335	T-19500/37A	TI	5.25	3.50	....
USN 2N335	T-19500/37A	GE	5.25	3.50	....
USN 2N337	T-19500/69C	TI	5.15	3.40	....
USN 2N337	S-19500/69C	GE	5.15	3.40	....
USN 2N338	T-19500/69C	TI	5.95	3.85	....
USN 2N338	T-19500/69C	GE	5.80	3.85	....
USN 2N388	T-19500/65	TI	.61	.41	....
USN 2N389	S-19500/173	TI	43.35	28.90	....
USA 2N393	....	SPR	4.70	2.45	....
USN 2N396A	S-19500/64A	GE	1.50	1.00	....
USAF 2N404	T-19500/20	TI	.50	.33	....
USAF 2N404	T-19500/20	RCA	.63	.42	....
USAF 2N404	T-19500/20	GE	.63	.42	....
USN 2N424	S-19500/173	TI	34.35	22.90	....
JAN 2N428	S-19500/44B	GE	2.91	1.94	....
USAF 2N461	T-19500/45	GE	1.75	1.15	....
USAF 2N461	T-19500/45	MOT	3.45	2.30	....
USA 2N465	T-19500/50A	MOT	1.80	1.20	....
JAN 2N466	S-19500/51A	MOT	1.95	1.30	....
USA 2N467	T-19500/52A	MOT	2.25	1.50	....
USAF 2N489	T-19500/75	GE	7.85	5.25	....
USAF 2N490	T-19500/75	GE	8.55	5.70	....
USAF 2N491	T-19500/75	GE	9.15	6.10	....
USAF 2N492	T-19500/75	GE	10.55	7.05	....
USAF 2N493	T-19500/75	GE	11.40	7.60	....
USAF 2N494	T-19500/75	GE	11.60	7.77	....
JAN 2N497	S-19500/74C	GE	9.30	6.20	....
JAN 2N497	T-19500/74	TI	9.30	6.20	....
JAN 2N498	S-19500/74C	GE	11.80	7.85	....
JAN 2N498	T-19500/74	TI	11.80	7.85	....
JAN 2N501A	....	SPR	7.35	5.35	....
USN 2N526	T-19500/60B	GE	1.74	1.16	....
USN 2N526	T-19500/600	MOT	1.74	1.16	....
USN 2N650A	S-19500/175	MOT	2.90	1.95	....
USN 2N651A	S-19500/175	MOT	2.85	1.90	....
USN 2N652A	S-19500/175	MOT	3.35	2.25	....
JAN 2N656	T-19500/74	TI	10.30	6.85	....
JAN 2N656	S-19500/74C	GE	10.30	6.85	....
JAN 2N657	T-19500/74	TI	10.50	7.00	....
JAN 2N657	S-19500/74C	GE	10.50	7.00	....
USN 2N681	S-19500/108	GE	14.25	9.45	....
USN 2N682	S-19500/108	GE	15.00	9.95	....
USN 2N683	S-19500/108	GE	16.75	11.20	....
USN 2N684	S-19500/108	GE	19.75	13.20	....
USN 2N685	S-19500/108	GE	23.50	15.70	....

Type No.	Mil Spec Mil-	Mfr.	1-99	100-999	1000-Up
USN 2N686	S-19500/108	GE	28.75	19.20	....
USN 2N687	S-19500/108	GE	34.00	22.70	....
USN 2N688	S-19500/108	GE	44.50	29.70	....
USA 2N696	S-19500/99A	GE	4.55	2.95	....
USA 2N696	S-19500/99A	TI	5.60	3.75	....
USA 2N696	S-19500/99A	RCA	1.98	1.32	....
USA 2N697	S-19500/99A	GE	5.25	3.50	....
USA 2N697	S-19500/99A	RCA	2.48	1.65	....
USA 2N697	S-19500/99A	TI	6.55	4.35	....
USA 2N700A	S-19500/123	MOT	14.25	9.50	....
USA 2N702	S-19500/153	TI	12.90	8.60	....
USA 2N703	S-19500/153	TI	16.35	10.90	....
USN 2N705	S-19500/86	TI	3.00	2.00	....
USN 2N705	S-19500/86	SYL	3.00	2.00	....
USN 2N705	S-19500/86	MOT	3.00	2.00	....
USA 2N706	S-19500/120	TI	5.40	3.60	....
USA 2N706	S-19500/120	RCA	2.23	1.49	....
USN 2N1039	S-19500/89	TI	4.50	3.00	....
USN 2N1041	S-19500/89	TI	16.50	11.00	....
USA 2N1042	S-19500/137	TI	6.00	4.00	....
USA 2N1043	S-19500/137	TI	9.75	6.50	....
USA 2N1044	S-19500/137	TI	14.25	9.50	....
USA 2N1045	S-19500/137	TI	18.75	12.50	....
USA 2N1120	S-19500/68	MOT	12.75	8.50	....
USA 2N1118	....	SPR	8.75	6.50	....
USA 2N1119	....	SPR	9.00	6.70	....
USA 2N1183	S-19500/143	RCA	2.64	2.59	....
USA 2N1183A	S-19500/143	RCA	3.30	3.30	....
USA 2N1183B	S-19500/143	RCA	3.88	3.85	....
USA 2N1184	S-19500/143	RCA	4.95	4.95	....
USA 2N1184A	S-19500/143	RCA	5.78	8.50	....
USA 2N1184B	S-19500/143	RCA	7.43	1.55	....
USA 2N1197	S-19500/165	HUG	11.35	2.22	....
USA 2N1224	S-19500/189	SYL	2.33	1.55	....
USA 2N1225	S-19500/189	SYL	3.33	2.25	....
USA 2N1234	S-19500/179	HUG	25.30	19.00	....
USN 2N1302	S-19500/126A	TI	.51	.34	....
USN 2N1303	S-19500/126A	TI	.51	.34	....
USN 2N1303	S-19500/126A	GE	.51	.34	....
USN 2N1304	S-19500/126A	TI	.63	.43	....
USN 2N1305	S-19500/126A	TI	.63	.43	....
USN 2N1305	S-19500/126A	GE	.64	.43	....
USN 2N1306	S-19500/126A	TI	.84	.57	....
USN 2N1307	S-19500/126A	TI	.84	.57	....
USN 2N1307	T-19500/126A	GE	1.17	.79	....
USN 2N1308	S-19500/126A	TI	1.17	.79	....
USN 2N1309	S-19500/126A	TI	1.17	.79	....
USA 2N1358	S-19500/122	RCA	6.85	4.56	....
USA 2N1358	T-19500/122	MOT	7.65	5.11	....
USA 2N1412	T-19500/76A	MOT	9.00	6.00	....
USA 2N1414	....	SPR	3.70	2.70	....
USA 2N1479	S-19500/270	RCA	6.27	4.18	....
USA 2N1480	S-19500/270	RCA	7.43	4.95	....
USA 2N1481	S-19500/270	RCA	8.58	5.72	....
USA 2N1482	S-19500/270	RCA	9.90	6.60	....
USA 2N1483	S-19500/180	RCA	10.73	7.15	....
USA 2N1484	S-19500/180	RCA	12.38	8.25	....
USA 2N1485	S-19500/180	RCA	14.85	9.90	....
USA 2N1486	S-19500/180	RCA	22.28	14.85	....
USA 2N1500	....	SPR	7.35	5.35	....
USN 2N1853	S-19500/171A	RCA	1.65	1.10	....
USN 2N1854	S-19500/172A	RCA	2.15	1.43	....
USA 3N35	S-19500/80A	TI	24.38	16.25	....

COMMERCIAL TYPES

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N21A	SYL	21FX4952	.68	.54	.49
1N21B	SYL	21F442	.68	.54	.49
1N21C	SYL	21F443	1.02	.81	.73
1N21D	SYL	21F4645	3.41	2.72	....
1N21E	SYL	21F4647	4.48	3.52	....
1N23A	SYL	21FX4953	.67	.54	.49
1N23B	SYL	21F447	.67	.54	.49
1N23C	SYL	21F4650	1.02	.81	.73
1N23D	SYL	21F4653	3.41	2.72	....
1N23E	SYL	21F4654	4.45	3.50	....
1N25A	SYL	21FX4954	8.48	6.60	....
1N23F	SYL	20F4519	14.70	11.76	....
1N25	SYL	21F448	3.53	2.74	....
1N25A	SYL	21FX4954	8.48	6.60	....
1N26	SYL	21F449	6.50	5.10	....
1N26A	SYL	21FX4753	7.75	6.05	....
1N26B	SYL	20F4520	27.25	21.75	....
1N26C	SYL	20F4521	31.15	25.50	....
1N31A	SYL	21FX4738	14.70	11.75	....
1N34	AMP	21FX2628	.39	.31	....
1N34A	AMP	21FX2629	.40	.32	....
1N34A	HUG	20F7634	.43	.32	....
1N34A	RAY	21F576	.35	.23	....
1N34A	OHM	21FX2500	.27	.19	....
1N34A	SYL	21F420	.32	.23	.20
1N35	SYL	21FX4827	1.58	1.21	.99
1N38A	SYL	21FX4888	.75	.57	.46
1N38A	OHM	21FX2501	.35	.25	....
1N38A	HUG	20F7790	.80	.60	....

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N38B	SYL	21F4600	1.22	.95	.81
1N38B	HUG	20F1791	.80	.60	....
1N39A	HUG	20F7792	1.70	1.28	....
1N39B	SYL	21F404	4.00	3.10	2.48
1N39B	HUG	20F7793	1.70	1.28	....
1N43	HUG	20F7794	.46	.35	....
1N44	HUG	20F7795	.62	.47	....
1N45	HUG	20F7796	.56	.42	....
1N46	HUG	20F7797	.40	.30	....
1N47	HUG	20F7798	.56	.42	....
1N48	OHM	21FX2543	.27	.19	....
1N51	OHM	21FX2541	.26	.39	....
1N52A	HUG	20F7799	.62	.47	....
1N52A	SYL	21FX4889	1.06	.83	.66
1N53	SYL	21FX4955	23.20	18.60	....
1N53B	SYL	21FX4741	29.65	25.90	....
1N53C	SYL	20F4523	26.79	37.45	....
1N53D	SYL	20F4524	73.50	57.80	....
1N54A	SYL	21F422	.55	.39	.31
1N54A	HUG	20F7862	.65	.49	....
1N55A	HUG	20F7863	1.50	1.13	....
1N55A	OHM	21FX2502	.57	.41	....
1N55A	SYL	21FX4890	1.44	1.13	.90
1N55B	HUG	21F025	1.65	1.24	....
1N56A	HUG	20F7864	.42	.32	....
1N56A	SYL	21F424	1.14	.89	.71
1N57	HUG	20F7865	.58	.44	....
1N58A	HUG	20F7866	.60	.45	....
1N58A	SYL	21F421	.77	.55	.45

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N59	HUG	20F6867	3.00	2.25	....
1N60	OHM	21FX2503	.25	.18	....
1N60	SYL	21F412	.48	.38	.30
1N60	AMP	21F2630	.43	.34	....
1N61	HUG	20F7868	1.16	.87	....
1N63	SYL	21F4603	.90	.60	.48
1N64	OHM	21FX2504	.25	.18	....
1N65	SYL	21F4604	.48	.35	.30
1N66	RAY	21F470	.40	.31	....
1N66	HUG	20F7869	.60	.45	....
1N66A	RAY	21F578	.39	.30	....
1N67A	HUG	21F026	.61	.46	....
1N67A	OHM	21FX2505	.33	.24	....
1N67A	SYL	21F4605	.61	.48	.38
1N67A	AMP	21FX2631	.51	.34	....
1N68A	HUG	21F027	1.00	.75	....
1N68A	SYL	20F4501	.70	.55	.44
1N68A	OHM	21FX2506	.45	.32	....
1N69	HUG	20F7870	.46	.35	....
1N69A	HUG	20F7871	.38	.29	....
1N69A	SYL	21F4606	.58	.45	.36
1N70	HUG	20F7872	.66	.50	....
1N70A	HUG	20F7873	.70	.53	....
1N70A	SYL	21F4607	1.01	.79	.63
1N75	HUG	20F7874	.78	.59	....
1N76A	SYL	21F4575	2.60	2.04	....
1N77A	SYL	21FX4760	20.00	13.35	12.00
1N77B	SYL	21F458	20.00	13.35	12.00
1N78	SYL	20F4525	6.50	5.10	....

See Pages 25 to 69 for Complete Listings of Semiconductors by Mfrs.

SEMICONDUCTOR DIRECTORY

Type	Mfg.	Stock No.	1-9	10-99
1N78A	SYL	21FX4655	8.60	6.80

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N78C	SYL	21FX4743	49.00	39.20	......
1N78D	SYL	21FX4744	58.80	47.05	......
1N81	HUG	20F7875	.46	.35	......
1N81A	HUG	20F7876	.55	.41	......
1N81A	SYL	21F4608	.75	.59	.47
1N82	SYL	21F456	.70	.55	.44
1N82A	SYL	21F459	.91	.71	.57
1N82A	RAY	21F9500	1.05	.80	......
1N86	HUG	20F7877	.46	.35	......
1N87A	AMP	21FX2632	.31	.23	....
1N88	HUG	20F7878	.70	.53	......
1N89	HUG	21F028	.70	.53	
1N90	HUG	21F029	.38	.29	
1N90	OHM	21FX2508	.27	.19	......
1N90	RAY	21FX9609	.41	.27	......
1N90	SYL	21F4609	.35	.27	.22
1N91	GE	21F314	.85	.55	......
1N92	GE	21F315	1.95	1.30	......
1N93	GE	21F316	2.70	1.80	......
1N95	RAY	21F581	.52	.35	......
1N95	HUG	21F030	.52	.39	......
1N96	HUG	21F031	.59	.44	......
1N96	OHM	21FX2510	.28	.20	......
1N96A	HUG	21FX7721	.59	.44	......
1N97	OHM	21FX2511	.33	.24	......
1N98	HUG	21F033	.66	.50	......
1N98	SYL	21F4610	.67	.51	.41
1N98	OHM	21FX2512	.33	.24	......
1N98A	HUG	21FX7722	.66	.50	......
1N99	HUG	21F034	.88	.66	......
1N99	OHM	21FX2513	.35	.25	......
1N99	SYL	20F4601	.63	.49	.39
1N100	OHM	21FX2514	.36	.26	......
1N100	SYL	20F4502	.51	.40	.32
1N100	HUG	21F035	.96	.72	......
1N100A	HUG	21FX7723	1.00	.75	......
1N115	SYL	21FX4891	.96	.75	.60
1N116	SYL	21FX4892	.53	.41	.33
1N116	HUG	21F036	.56	.42	......
1N116	RAY	21FX9612	.62	.41	......
1N117	SYL	21FX4893	.58	.45	.36
1N117	HUG	21F037	.58	.44	......
1N118	HUG	21F038	.61	.46	......
1N118	OHM	21FX2516	.33	.24	....
1N118	SYL	21FX4761	.61	.48	.38
1N118A	HUG	21FX7724	.63	.47	......
1N118A	SYL	21FX4894	.61	.48	.38
1N119	SYL	20F4503	1.07	.84	.67
1N120	SYL	21FX4895	.96	.69	.60
1N126	HUG	20F7879	.45	.34	......
1N126A	SYL	21F4612	.44	.34	.27
1N126A	OHM	21FX2517	.26	.19	......
1N126A	RAY	21F582	.44	.34	......
1N127	HUG	21F040	.89	.68	......
1N127A	OHM	21FX2518	.32	.23	......
1N127A	SYL	20F4602	.89	.70	.59
1N128	HUG	20F7880	.50	.38	......
1N128	OHM	21FX2519	.35	.25	......
1N128	HUG	21F041	.50	.38	......
1N128	SYL	21F4614	.48	.38	.30
1N137A	HOF	21F2000	2.75	2.06	......
1N138A	HOF	21F2001	2.75	2.06	......
1N139	HUG	20F7601	.48	.36	......
1N140	HUG	20F7602	.38	.29	......
1N141	HUG	20F7731	.70	.53	......
1N142	HUG	20F7881	.85	.64	......
1N143	HUG	20F7732	.95	.71	......
1N151	GE	21F318	2.70	2.15	......
1N152	GE	21F319	3.40	2.70	......
1N153	GE	21F320	4.45	3.55	......
1N158	GE	21F321	6.10	5.00	......
1N191	AMP	21FX2633	.60	.40	....
1N191	HUG	21F042	.58	.44	......
1N191	RAY	21FX9618	.59	.44	......
1N191	OHM	21FX2520	.40	.29	......
1N191	SYL	21F4615	.56	.44	.35
1N192	RAY	21FX9617	.53	.41	......
1N192	SYL	20F4603	.53	.41	.33
1N192	OHM	21FX2521	.40	.29	......
1N198	RAY	21FX9619	.60	.40	......
1N198	OHM	21FX2522	.50	.36	......
1N198	HUG	21F044	.51	.39	......
1N198	SYL	20F4581	.51	.40	.32
1N198A	HUG	21FX7702	.51	.39	......
1N198A	SYL	21F4620	.51	.40	.32
1N198B	SYL	20F4504	1.03	.80	.64
1N198B	HUG	20F7882	1.04	.78	......
1N200	HOF	21F2002	3.25	2.44	......
1N201	HOF	21F2003	3.25	2.44	......
1N202	HOF	21F2004	3.25	2.44	......
1N203	HOF	21F2005	3.25	2.44	......
1N204	HOF	21F2006	3.25	2.44	......
1N205	HOF	21F2007	3.25	2.44	......
1N206	HOF	21F2008	3.25	2.44	......
1N207	HOF	21F2009	3.25	2.44	......
1N208	HOF	21F2010	3.25	2.44	......
1N209	HOF	21F2011	3.25	2.44	......
1N210	HOF	21F2012	3.25	2.44	......
1N211	HOF	21F2013	3.25	2.44	......
1N212	HOF	21F2014	3.25	2.44	......
1N213	HOF	21F2015	3.25	2.44	......
1N214	HOF	21F2016	3.25	2.44	......
1N215	HOF	21F2017	3.25	2.44	......
1N216	HOF	21F2018	3.25	2.44	......
1N217	HOF	21F2019	3.25	2.44	......
1N218	HOF	21F2020	3.25	2.44	......
1N219	HOF	21F2021	3.25	2.44	......
1N220	HOF	21F2022	3.25	2.44	......
1N221	HOF	21F2023	3.25	2.44	......
1N222	HOF	21F2024	3.25	2.44	......
1N225	HOF	21F2032	5.75	4.31	......
1N226	HOF	21F2033	5.75	4.31	......
1N227	HOF	21F2034	5.75	4.31	......
1N228	HOF	21F2035	5.75	4.31	......
1N229	HOF	21F2036	5.75	4.31	......
1N230	HOF	21F2037	6.25	4.69	......
1N231	HOF	21F2038	6.25	4.69	......
1N232	HOF	21F2039	6.25	4.69	......
1N233	HOF	21F2040	6.25	4.69	......
1N248	GE	21FX3485	2.78	2.40	......
1N248A	GE	21FX3487	3.60	2.70	......
1N248B	GE	20F3525	4.05	3.25	......
1N248C	RCA	20F7031	1.82	1.21	......
1N249	GE	21FX3489	4.58	3.05	......
1N249A	GE	21FX3491	4.95	3.30	......
1N249B	GE	20F3037	6.08	4.05	......
1N249C	RCA	20F7032	2.31	1.54	......
1N250	GE	21FX3494	6.30	4.20	......
1N250A	GE	21FX3496	7.13	4.75	......
1N250B	GE	20F3041	8.25	5.50	......
1N250C	RCA	20F7033	3.30	2.20	......
1N250RC	RCA	21FX2738	3.30	2.20	......
1N251	TI	20F5016	1.52	1.07	......
1N251	SYL	21FX4830	.70	.55	.44
1N251	GE	20F3311	4.50	3.15	......
1N252	GE	20F3312	2.85	2.00	......
1N252	SYL	21FX4831	.64	.50	.40
1N253	RAY	21F9501	1.58	1.05	......
1N253	TI	21FX5587	1.19	.79	......
1N253	GE	21F3042	1.19	.79	......
1N253	MOT	21FX4290	1.57	1.05	......
1N254	GE	21F3043	1.25	.83	......
1N254	MOT	21FX4291	1.75	1.15	......
1N254	TI	21FX5588	1.25	.83	......
1N255	RAY	21F9503	3.00	2.00	......
1N255	GE	21F3044	1.97	1.31	......
1N255	MOT	21FX4292	3.00	2.00	......
1N255	TI	21FX5589	1.97	1.31	......
1N256	MOT	21FX4293	3.70	2.45	......
1N256	RAY	21F9504	3.71	2.41	......
1N256	TI	21FX5590	2.85	1.90	......
1N256	GE	21F3051	2.85	1.90	......
1N270	AMP	21FX2653	.60	.40	......
1N270	HUG	21FX7725	.75	.56	......
1N270	SYL	21F4577	.50	.39	.31
1N273	HUG	21FX7726	.68	.51	......
1N276	SYL	21F4578	.43	.34	.27
1N276	HUG	21FX7727	.60	.45	......
1N277	AMP	21FX2654	.60	.40	......
1N277	HUG	21FX7728	.93	.70	......
1N277	SYL	21FX4847	.59	.46	.37
1N278	HUG	21FX7729	1.03	.77	......
1N279	HUG	21FX7730	.71	.53	......
1N279	SYL	21F4622	.58	.45	.36
1N281	SYL	20F4582	.51	.44	.32
1N281	HUG	21FX7731	.58	.43	......
1N283	HUG	21FX7732	.60	.45	......
1N283	SYL	21FX4832	.51	.40	.32
1N287	HUG	20F7733	.88	.66	......
1N288	HUG	20F7734	.88	.66	......
1N289	HUG	20F7735	.90	.68	......
1N290	HUG	20F7883	.88	.66	......
1N291	HUG	20F7736	.95	.71	......
1N292	HUG	20F7737	.60	.45	......
1N294	SYL	21F4579	.34	.26	.21
1N294	HUG	20F7635	.52	.39	......
1N295	AMP	21FX2634	.35	.27	......
1N295	SYL	21F4624	.35	.27	.23
1N297	SYL	21F4580	.70	.55	.44
1N297A	RAY	21FX9621	.72	.55	......
1N298	SYL	21F4581	.88	.65	.52
1N300	RAY	21F466	4.55	3.50	......
1N301	RAY	21F467	4.55	3.50	......
1N302	RAY	21F468	5.20	4.00	......
1N302A	RAY	21F526	6.50	5.00	......
1N303	RAY	21F469	4.55	3.50	......
1N305	RAY	21F500	2.60	2.00	......
1N306	RAY	21F501	2.60	2.00	......
1N315	GE	21F351	3.00	2.00	......
1N332	GE	21FX3342	1.97	1.31	......
1N332	MOT	20F4140	3.42	2.25	......
1N332	TI	20F5018	1.97	1.31	......
1N333	GE	21FX3343	1.97	1.31	......
1N333	MOT	20F4132	3.42	2.25	......
1N333	TI	20F5019	1.97	1.31	......
1N334	GE	21FX3344	1.58	1.05	......
1N334	MOT	20F4138	2.47	1.65	......
1N334	TI	20F5020	1.58	1.05	......
1N335	GE	21FX3345	1.58	1.05	......
1N335	MOT	20F4130	2.47	1.65	......
1N335	TI	20F5021	1.58	1.05	......
1N336	GE	21FX3346	1.25	.83	......
1N336	MOT	20F4136	1.71	1.10	......
1N336	TI	20F5022	1.25	.83	......
1N337	MOT	20F4128	1.71	1.10	......
1N337	TI	20F5023	1.25	.83	......
1N337	GE	21FX3347	1.25	.83	......
1N338	MOT	20F4143	1.87	1.25	......
1N338	TI	20F5024	2.10	1.40	......
1N339	GE	21FX3348	1.19	.79	......
1N339	MOT	20F4134	1.50	1.00	......
1N339	TI	20F5025	1.19	.79	......
1N340	GE	21FX3349	1.19	.79	......
1N340	MOT	20F4126	1.50	1.00	......
1N340	TI	20F5026	1.19	.79	......
1N341	GE	21FX3350	1.97	1.31	......
1N341	MOT	20F4141	3.04	2.00	......
1N341	TI	20F5027	1.97	1.31	......
1N342	GE	21FX3351	1.97	1.31	......
1N342	MOT	20F4133	3.04	2.00	......
1N342	TI	20F5028	1.97	1.31	......
1N343	GE	21FX3352	1.58	1.05	......
1N343	MOT	20F4139	2.32	1.55	......
1N343	TI	20F5029	1.58	1.05	......
1N344	GE	21FX3353	1.58	1.05	......
1N344	MOT	20F4131	2.32	1.55	......
1N344	TI	20F5030	1.58	1.05	......
1N345	GE	21FX3354	1.25	.83	......
1N345	MOT	20F4137	1.63	1.05	......
1N345	TI	20F5031	1.25	.83	......
1N346	GE	21FX3355	1.25	.83	......
1N346	MOT	20F4129	1.63	1.05	......
1N346	TI	20F5032	1.25	.83	......
1N347	MOT	20F4142	1.72	1.15	......
1N347	TI	20F5033	2.00	1.30	......
1N348	GE	21FX3356	1.19	.79	......
1N348	MOT	20F4135	1.42	.95	......
1N348	TI	20F5034	1.19	.79	......
1N349	GE	21FX3357	1.19	.79	......
1N349	MOT	20F4127	1.42	.95	......
1N349	TI	20F5035	1.19	.79	......
1N355	HUG	20F7884	.68	.51	......
1N358	SYL	21FX4745	19.85	15.90	......
1N358A	SYL	20F4526	23.00	18.00	......
1N368	GE	21F3175	2.55	1.70	......
1N369	SYL	21FX4746	27.35	21.85	......
1N415B	SYL	21FX4956	.81	.64	......
1N415E	SYL	21FX4833	5.60	4.40	......
1N416B	SYL	21FX4957	.81	.64	......
1N416C	SYL	21FX4958	1.18	.92	......
1N416E	SYL	21FX4959	5.50	4.50	......
1N429	HOF	21F2046	5.70	4.35	......
1N429	INT	20F1385	5.70	4.35	......
1N430	HOF	21F2047	16.00	13.30	......
1N430	INT	21F989	15.60	13.30	......
1N430A	HOF	21F2048	24.00	19.95	......
1N430B	HOF	21F2049	36.00	30.60	......
1N431	HOF	21F2025	5.00	3.75	......
1N440	MOT	20F4058	.82	.55	......
1N440	GE	21F3030	.82	.55	......
1N440	INT	20F8185	.83	.65	......
1N440B	GE	21F3035	.82	.55	......
1N440B	MOT	20F4064	.82	.55	......
1N440B	RCA	21FX7126	.73	.48	......
1N440B	TI	20F5036	.83	.55	.44
1N440B	INT	20F8190	.83	.65	......
1N441	GE	21F3031	.85	.57	......
1N441	INT	20F8186	.86	.57	......
1N441	MOT	20F4059	.85	.55	......
1N441B	INT	20F8191	.86	.57	......
1N441B	GE	21F3036	.85	.57	....
1N441B	MOT	20F4065	.85	.55	....
1N441B	RCA	21FX7127	.76	.51	....
1N441B	TI	20F5037	.86	.57	......
1N442	GE	21F3032	.99	.66	....
1N442	INT	20F8187	.99	.66	....
1N442	MOT	20F4060	.99	.65	....
1N442B	INT	20F8192	.99	.66	....
1N442B	GE	21F3037	.99	.66	....
1N442B	MOT	20F4066	.99	.65	....
1N442B	RCA	21FX7128	.87	.58	....
1N442B	TI	20F5038	.99	.66	......
1N443	GE	21F3033	1.24	.83	....
1N443	INT	20F8188	1.24	.83	....
1N443	MOT	20F4061	1.24	.80	....

See Pages 25 to 69 for Complete Listings of Semiconductors by Mfrs.

SEMICONDUCTOR DIRECTORY

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N443B	INT	20F8193	1.24	.83	....
1N443B	GE	21F3038	1.24	.83	....
1N443B	MOT	20F4067	1.24	.80	....
1N443B	RCA	21FX7129	1.09	.73	....
1N443B	TI	20F5039	1.24	.83	....
1N444	GE	21F3034	1.24	.83	....
1N444	MOT	20F4062	1.24	.80	....
1N444	INT	20F8189	1.84	.90	....
1N444B	INT	20F8194	1.84	.90	....
1N444B	GE	21F3039	1.24	.83	....
1N444B	MOT	20F4068	1.24	.80	....
1N444B	RCA	21FX7130	1.24	.83	....
1N444B	TI	20F5040	1.40	.94	....
1N445	GE	21F3027	1.81	1.21	....
1N445	MOT	20F4063	1.81	1.20	....
1N445B	TI	20F5041	1.82	1.20	....
1N445B	GE	21F3028	1.81	1.21	....
1N445B	MOT	20F4069	1.81	1.21	....
1N445B	RCA	21FX7131	1.60	1.07	....
1N447	HUG	20F7738	.56	.42	....
1N448	HUG	20F7739	1.00	.75	....
1N449	HUG	20F7740	.62	.47	....
1N450	HUG	20F7741	1.02	.77	....
1N451	HUG	20F7742	1.62	1.22	....
1N452	HUG	20F7743	.64	.48	....
1N453	HUG	20F7744	1.04	.78	....
1N454	HUG	20F7745	.76	.57	....
1N455	HUG	20F7746	.80	.60	....
1N456	TI	21FX5570	2.20	1.70	....
1N456	SYL	21FX4848	.37	.29	.23
1N456	HUG	21F055	.62	.47	....
1N456A	SYL	21FX4849	.37	.29	.23
1N456A	TI	21FX5571	2.20	1.76	....
1N457	SYL	21FX4030	.45	.36	.29
1N457	TI	21FX5572	2.40	1.85	1.09
1N457	HUG	21F056	.74	.56	....
1N457A	SYL	21FX4850	.45	.36	.29
1N457A	TI	21FX5573	2.40	1.85	....
1N458	SYL	21FX4031	.51	.40	.32
1N458	TI	21FX5574	2.60	2.08	....
1N458	HUG	21F057	.86	.65	....
1N458A	SYL	21FX4851	.51	.40	.32
1N458A	TI	21FX5575	2.92	2.34	....
1N459	HUG	21F058	1.12	.84	....
1N459	SYL	21F4632	.66	.51	.41
1N459	TI	21FX5576	3.00	2.40	....
1N459A	SYL	20F4505	.71	.55	.44
1N459A	TI	21FX5577	4.20	3.35	....
1N461	HUG	21F051	.62	.47	....
1N461	SYL	21FX4763	.35	.28	.22
1N461	TI	21FX5578	1.15	.90	....
1N461A	SYL	20F4506	.35	.28	.22
1N462	HUG	21F052	.70	.53	....
1N462	SYL	20F4507	.38	.30	.24
1N462	TI	21FX5579	1.82	1.31	....
1N462A	SYL	20F4508	.38	.30	.24
1N463	HUG	21F053	.80	.60	....
1N463	TI	21FX5580	1.95	1.49	....
1N463	SYL	20F4509	.46	.36	.29
1N463A	SYL	20F4510	.46	.36	.29
1N464	HUG	21F059	1.05	.79	....
1N464	TI	21FX5581	1.85	1.40	.68
1N464	SYL	21FX4910	.45	.35	.28
1N464A	SYL	20F4605	.45	.35	.28
1N465	HOF	21F2026	3.75	2.81	....
1N465	HUG	20F7645	3.00	2.05	....
1N465A	HUG	20F7651	3.50	2.50	....
1N466	HOF	21F2027	3.75	2.81	....
1N466	HUG	20F7646	3.00	2.05	....
1N466A	HUG	20F7652	3.50	2.50	....
1N467	HOF	21F2028	3.75	2.81	....
1N467	HUG	20F7647	3.00	2.05	....
1N467A	HUG	20F7653	3.50	2.50	....
1N468	HOF	21F2029	3.75	2.81	....
1N468	HUG	20F7648	3.00	2.05	....
1N468A	HUG	20F7654	3.50	2.50	....
1N469	HOF	21F2030	3.75	2.81	....
1N469	HUG	20F7649	3.00	2.05	....
1N469A	HUG	20F7655	3.50	2.50	....
1N470	HOF	21F2031	3.75	2.81	....
1N470	HUG	20F7650	3.00	2.05	....
1N470A	HUG	20F7656	3.50	2.50	....
1N471	HOF	21F2041	5.20	3.90	....
1N472	HOF	21F2042	5.20	3.90	....
1N473	HOF	21F2043	5.20	3.90	....
1N474	HOF	21F2044	5.20	3.90	....
1N475	HOF	21F2045	5.20	3.90	....
1N476	AMP	21FX2635	.42	.28	....
1N476	HUG	20F7886	.62	.47	....
1N478	HUG	20F7887	.54	.41	....
1N478	AMP	21FX2636	.45	.30	....
1N480	HUG	20F7885	.85	.64	....
1N482	HUG	21F7525	.89	.67	....
1N482	SYL	21FX4835	.67	.52	.42
1N482	TI	21FX5552	1.60	1.19	....
1N482A	HUG	21F7526	.91	.68	....
1N482A	TI	21FX5553	2.00	1.60	....
1N482A	SYL	20F4583	.67	.52	.42
1N482B	HUG	21F7527	.95	.71	....
1N482B	TI	21FX5582	2.20	1.76	....
1N482B	SYL	20F4606	.67	.52	.42
1N483	HUG	21F7528	1.00	.75	....
1N483	TI	21FX5554	2.00	1.60	....
1N483	SYL	21FX4911	.69	.54	.43
1N483A	HUG	21F7529	1.14	.86	....
1N483A	SYL	20F4607	.69	.54	.43
1N483A	TI	21FX5555	2.12	1.70	....
1N483B	HUG	21F7530	1.20	.90	....
1N483B	SYL	21FX4912	.69	.54	.43
1N483B	TI	21FX5583	2.35	1.90	....
1N484	HUG	21F7531	1.25	.94	....
1N484	TI	21FX5556	2.52	2.02	....
1N484	SYL	21FX4913	.80	.62	.50
1N484A	HUG	21F7532	1.34	1.01	....
1N484A	TI	21FX5557	2.92	2.34	....
1N484A	SYL	21FX4914	.80	.62	.50
1N484B	TI	21FX5584	2.55	1.95	....
1N484B	HUG	21F7533	1.42	1.07	....
1N484B	SYL	21FX4915	.80	.62	.50
1N485	SYL	21FX4916	1.06	.82	.66
1N485	HUG	21F7534	1.45	1.09	....
1N485	TI	21FX5558	3.60	2.54	....
1N485A	SYL	21FX4917	1.06	.82	.66
1N485A	HUG	21F7535	1.50	1.13	....
1N485A	TI	21FX5559	4.20	3.35	....
1N485B	SYL	21FX4918	1.06	.82	.66
1N485B	HUG	21F7536	2.00	1.50	....
1N485B	TI	21FX5585	3.15	2.23	....
1N486	SYL	21FX4919	1.79	1.40	1.12
1N486	HUG	21F7537	2.00	1.50	....
1N486	TI	21FX5560	4.30	3.04	....
1N486A	TI	21FX5561	5.00	3.75	....
1N486A	HUG	21F7538	2.10	1.58	....
1N486A	SYL	20F4608	1.79	1.40	1.12
1N486B	SYL	21FX4920	1.79	1.40	....
1N486B	HUG	21FX7703	2.40	1.80	....
1N486B	TI	21FX5586	4.00	2.85	....
1N487	SYL	21FX4921	3.20	2.50	2.00
1N487	TI	21FX5562	6.60	4.67	....
1N487	HUG	21F7539	2.50	1.88	....
1N487A	SYL	21FX4922	3.20	2.50	2.00
1N487A	HUG	21F7540	2.75	2.06	....
1N487A	TI	21FX5563	6.60	4.67	....
1N488	SYL	21FX4923	3.65	2.85	2.28
1N488	HUG	21F7541	2.85	2.14	....
1N488	TI	21FX5564	5.05	3.57	....
1N488A	SYL	21FX4924	3.65	2.85	2.28
1N488A	HUG	21F7542	2.95	2.21	....
1N488A	TI	21FX5565	8.00	5.68	....
1N497	SYL	20FX4899	.67	.52	.42
1N497	HUG	20F7747	.72	.54	....
1N498	HUG	20F7748	1.16	.87	....
1N498	SYL	21FX4900	.50	.39	.31
1N499	HUG	20F7749	.92	.69	....
1N500	HUG	20F7750	.91	.68	....
1N500	SYL	20F4609	.93	.73	.58
1N501	HUG	20F7751	.80	.60	....
1N502	HUG	20F7752	1.12	.84	....
1N530	TI	20F5042	.68	.43	....
1N531	TI	20F5043	.85	.55	....
1N532	TI	20F5044	1.00	.70	....
1N533	TI	20F5045	1.20	.80	....
1N534	TI	20F5046	1.25	.84	....
1N535	TI	20F5047	2.40	1.60	....
1N536	MOT	21F4282	.78	.50	....
1N536	RCA	21FX7132	.46	.31	....
1N536	INT	21F993	.66	.44	....
1N536	GE	21F3040	.53	.35	....
1N536	TI	21FX5694	.53	.35	....
1N537	GE	21F353	.60	.40	....
1N537	TI	21FX5695	.60	.40	....
1N537	RCA	21FX7133	.53	.35	....
1N537	INT	21F994	.74	.49	....
1N537	MOT	21FX4283	.79	.50	....
1N538	TI	21F5139	.68	.45	....
1N538	GE	21F354	.68	.45	....
1N538	INT	21F995	.76	.51	....
1N538	MOT	21FX4284	.81	.50	....
1N538	RCA	21FX7134	.63	.42	....
1N539	GE	21F355	.83	.55	....
1N539	TI	21F5140	.83	.55	....
1N539	RCA	21FX7135	.66	.44	....
1N539	MOT	21FX4285	.91	.60	....
1N540	GE	21F356	.98	.65	....
1N540	TI	21F5141	.98	.65	.60
1N540	INT	21F997	1.07	.71	....
1N540	MOT	21FX4286	1.06	.70	....
1N540	RCA	21FX7136	.81	.54	....
1N541	AMP	21FX2637	.40	.30	....
1N542	AMP	21FX2638	.80	.60	....
1N547	MOT	21FX4289	1.10	1.65	....
1N547	GE	21FX3358	1.43	.95	....
1N547	RCA	21FX7137	1.19	.79	....
1N547	TI	21FX5634	1.43	.95	....
1N547	INT	20F1324	1.65	1.10	....
1N550	GE	21FX3361	1.29	.86	....
1N550	MOT	20F4146	1.35	.90	....
1N550	TI	20F5048	1.29	.86	....
1N551	GE	21FX3362	1.38	.92	....
1N551	MOT	20F4147	1.44	.95	....
1N551	TI	20F5049	1.38	.92	....
1N552	GE	21FX3363	1.77	1.18	....
1N552	MOT	20F4148	1.83	1.20	....
1N552	TI	20F5050	1.77	1.18	....
1N553	GE	21FX3364	2.16	1.44	....
1N553	MOT	20F4149	2.31	1.50	....
1N553	TI	20F5051	2.16	1.44	....
1N554	GE	21FX3365	2.16	1.44	....
1N554	MOT	20F4150	2.73	1.80	....
1N554	TI	20F5052	2.16	1.44	....
1N555	GE	21FX3366	3.15	2.30	....
1N555	MOT	20F4151	3.90	2.60	....
1N555	TI	20F5053	3.15	2.10	....
1N560	GE	21F3163	2.69	1.79	....
1N560	MOT	20F4086	4.15	2.75	....
1N561	GE	21F3164	5.36	3.57	....
1N561	MOT	20F4087	6.79	4.50	....
1N562	GE	21F3165	5.36	3.57	....
1N562	MOT	20F4144	7.50	5.00	....
1N563	GE	21F3166	10.73	7.15	....
1N563	MOT	20F4145	10.87	7.25	....
1N570	TI	21F5038	32.20	24.60	21.45
1N588	TI	21F5034	8.10	5.40	4.95
1N589	TI	21F5035	11.20	7.60	6.98
1N596	INT	23F605	5.00	....	....

Type	Mfr.	Stk. No.	1-49	50-99	100-499
1N596	HUG	21FX7901	5.15	4.48	3.85
1N597	HUG	21FX7902	5.60	4.87	4.20
1N598	HUG	21FX7903	6.83	5.87	5.12

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N598	INT	23F607	8.50	....	....
1N599	GE	21FX3367	.53	.35	....
1N599	MOT	20F4070	.90	.60	....
1N599	TI	20F5054	.74	.49	....
1N599	INT	21F920	.68	.45	....
1N599A	MOT	20F4071	1.23	.80	....
1N599A	TI	20F5055	1.31	.87	....
1N599A	GE	21FX3368	1.05	.70	....
1N600	GE	21FX3369	.60	.40	....
1N600	MOT	20F4072	.94	.60	....
1N600	TI	20F5056	.92	.61	....
1N600	INT	21F921	.83	.55	....
1N600A	GE	21FX3370	1.20	.80	....
1N600A	TI	20F5057	1.46	.97	....
1N600A	MOT	20F4073	1.38	.90	....
1N601	GE	21FX3371	.62	.41	....
1N601	MOT	20F4074	.97	.65	....
1N601	TI	20F5058	.98	.65	....
1N601	INT	21F922	.87	.58	....
1N601A	GE	21FX3372	1.28	.85	....
1N601A	MOT	20F4075	1.50	1.00	....
1N601A	TI	20F5059	1.59	1.06	....
1N602	GE	21FX3373	.68	.45	....
1N602	MOT	20F4076	1.00	.65	....
1N602	TI	20F5060	1.05	.70	....
1N602	INT	21F923	.95	.63	....
1N602A	GE	21FX3374	1.35	.90	....
1N602A	MOT	20F4077	1.57	1.05	....
1N602A	TI	20F5061	1.68	1.12	....
1N602A	INT	21F930	1.58	1.05	....
1N603	GE	21FX3375	.83	.55	....
1N603	MOT	20F4078	1.21	.80	....
1N603	TI	20F5062	1.37	.91	....
1N603	INT	21F924	1.22	.81	......
1N603A	GE	21FX3376	1.65	1.10	......
1N603A	MOT	20F4079	1.95	1.30	......
1N603A	TI	20F5063	2.07	1.38	......
1N604	GE	21FX3377	.98	.65	......
1N604	MOT	20F4080	1.60	1.05	......
1N604	TI	20F5064	1.86	1.24	......
1N604/ 3FS1	INT	21F925	1.61	1.07	......
1N604A	GE	21FX3378	1.95	1.30	......
1N604A	TI	20F5065	2.52	1.68	......
1N605	GE	21FX3379	.98	.65	......
1N605	TI	20F5066	1.97	1.31	......
1N605/ 3GS1	INT	21F926	1.68	1.12	......
1N605A	GE	21FX3474	1.95	1.30	......
1N605A	TI	20F5067	2.59	1.79	......
1N606	GE	21FX3380	1.43	.95	......
1N606	INT	21FX1346	2.00	1.33	......
1N606	MOT	20F4084	1.99	1.30	......
1N606	TI	20F5068	2.22	1.48	......
1N606A	GE	21FX3381	2.87	1.91	......

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N606A	TI	20F5069	3.50	2.33	......
1N607	GE	21F3167	1.14	.76	......
1N607	MOT	20F4152	1.32	.85	......
1N607	TI	20F5070	1.14	.76	......
1N607A	GE	21FX3382	1.25	.83	......
1N607A	MOT	20F4153	1.56	1.00	......
1N607A	TI	20F5071	1.25	.83	......
1N608	GE	21F3168	1.19	.79	......
1N608	MOT	20F4154	1.38	.90	......
1N608	TI	20F5072	1.19	.79	......
1N608A	GE	21F3383	1.29	.86	......
1N608A	MOT	20F4155	1.62	.86	......
1N608A	TI	20F5073	1.29	1.05	......
1N609	GE	21F3169	1.22	.81	......
1N609	MOT	20F4156	1.42	.95	......
1N609	TI	20F5074	1.22	.81	......
1N609A	GE	21FX3384	1.34	.89	......
1N609A	MOT	20F4157	1.68	1.10	......
1N609A	TI	20F5075	1.34	.88	......
1N610	GE	21F3170	1.25	.83	......
1N610	MOT	20F4158	1.53	1.00	......
1N610	TI	20F5076	1.25	.83	......
1N610A	GE	21FX3385	1.47	.92	......
1N610A	TI	20F5077	1.47	.92	......
1N610A	MOT	20F4159	1.89	1.25	......
1N611	GE	21F3171	1.58	1.05	......
1N611	MOT	20F4160	1.95	1.30	......
1N611	TI	20F5078	1.58	1.05	......
1N611A	GE	21FX3386	1.77	1.18	......
1N611A	MOT	20F4161	2.31	1.50	......
1N611A	TI	20F5079	1.77	1.18	......
1N612	GE	21F3172	1.97	1.31	......
1N612	MOT	20F4162	2.67	1.75	......
1N612	TI	20F5080	1.97	1.31	......
1N612A	GE	21FX3387	2.16	1.44	......
1N612A	MOT	20F4163	3.07	2.05	......
1N612A	TI	20F5081	2.16	1.44	......
1N613	GE	21F3173	1.97	1.31	......
1N613	MOT	20F4164	3.16	2.10	......
1N613	TI	20F5082	1.97	1.31	......
1N613A	GE	21FX3388	2.16	1.44	......
1N613A	MOT	21F4165	3.64	2.40	......
1N613A	TI	20F5083	2.16	1.44	......
1N614	GE	21F3174	2.85	1.90	......
1N614	MOT	20F4166	4.54	3.00	......
1N614	TI	20F5084	2.85	1.90	......
1N614A	GE	21FX3389	3.15	2.10	......
1N614A	MOT	20F4167	4.87	3.25	......
1N614A	TI	20F5085	3.15	2.10	......
1N617	AMP	21FX2639	.38	.25	......
1N617	HUG	20F7888	.62	.47	......
1N618	AMP	21FX2640	.42	.28	......
1N618	HUG	20F7889	.64	.48	......
1N625	HUG	21F072	.60	.45	......
1N625	SYL	20F4511	.59	.46	.37
1N625	TI	21FX5625	.57	.43	......
1N625	GE	20F3313	1.35	.95	......
1N626	GE	20F3314	1.70	1.19	......
1N626	HUG	21F073	.60	.49	......
1N626	SYL	20F4512	.63	.50	.40
1N626	TI	21FX5626	.62	.46	......
1N627	SYL	20F4513	.74	.57	.46
1N627	HUG	21F074	.70	.53	......
1N627	TI	21FX5627	.67	.48	......
1N628	TI	21FX2626	.62	.46	......
1N628	SYL	20F4514	.88	.69	.55
1N628	HUG	21F063	.88	.66	......
1N628	TI	21FX5628	.72	.53	......
1N629	SYL	20F4515	.96	.75	.60
1N629	HUG	21F065	.95	.71	......
1N629	TI	21FX5629	.86	.60	......
1N630	SYL	21FX4960	35.70	28.50	......
1N631	SYL	21FX4905	.80	.63	.50
1N631	HUG	20F7890	.58	.44	......
1N632	HUG	20F7891	.64	.48	......
1N632	SYL	21FX4901	.72	.56	.45
1N633	SYL	21FX4902	1.46	1.17	.94
1N636	HUG	20F7636	.53	.40	......
1N643	HUG	21FX7704	3.50	2.63	......
1N643	TI	21FX5630	2.20	1.62	......
1N643A	SYL	20F4610	2.64	2.06	1.65
1N645	GE	21FX3457	1.98	1.49	......
1N645	TI	21F5099	1.50	.93	......
1N645A	HUG	20F7893	2.95	2.21	......
1N645A	TI	21FX5675	3.63	2.66	......
1N645A	GE	20F3015	3.63	2.66	......
1N645B	HUG	20F7894	3.50	2.63	......
1N646	TI	21F5100	2.00	1.10	......
1N646	GE	21FX3458	2.57	1.96	......
1N647	TI	21F5101	3.00	1.38	......
1N647	GE	21FX3459	3.26	2.40	......
1N648	TI	21F5102	3.70	2.08	......
1N648	GE	21FX3460	3.88	2.96	......
1N649	GE	21FX3461	4.50	3.44	......
1N649	TI	21F5103	4.20	2.72	......
1N658	HUG	21FX7706	3.75	2.82	......
1N658	SYL	21FX4925	3.64	2.73	2.46
1N659	SYL	21FX4926	2.02	1.58	1.26
1N659	TI	21F5144	1.20	.70	......
1N659	HUG	20F7605	1.40	1.05	......
1N659	GE	20F3315	2.25	1.58	......
1N659A	GE	20F3316	2.25	1.58	......
1N660	TI	21F5190	1.30	.80	......
1N661	TI	21F5191	1.95	1.32	......
1N662	HUG	21FX7707	1.20	.90	......
1N662	TI	21FX5700	1.14	.80	......
1N663	HUG	21FX7709	1.60	1.20	......
1N663	TI	21FX5701	1.54	1.13	......
1N676	GE	21FX3462	1.43	.95	......
1N676	HUG	20F7895	1.70	1.28	......
1N677	HUG	20F7896	2.20	1.65	......
1N677	GE	21FX3463	1.59	1.06	......
1N678	GE	21FX3464	1.85	1.23	......
1N678	HUG	20F7897	2.30	1.73	......
1N679	HUG	20F7898	2.85	2.14	......
1N679	GE	21FX3465	2.30	1.53	......
1N681	GE	21FX3466	2.27	1.51	......
1N681	HUG	20F7899	2.70	2.03	......
1N682	HUG	20F7900	3.75	2.81	......
1N682	GE	21FX3467	3.00	2.00	......
1N683	GE	21FX3468	3.14	2.09	......
1N683	HUG	20F7901	3.75	2.81	......
1N684	HUG	20F7902	4.85	3.64	......
1N684	GE	21FX3469	3.87	2.58	......
1N685	GE	21FX3470	4.01	2.67	......
1N685	HUG	20F7903	4.75	3.56	......
1N686	HUG	20F7904	5.75	4.31	......
1N686	GE	21FX3471	4.56	3.04	......
1N687	GE	21FX3472	4.61	3.07	......
1N687	HUG	20F7905	5.75	4.31	......
1N689	HUG	20F7906	5.90	4.43	......
1N689	GE	21FX3473	4.98	3.32	......
1N695	HUG	20F7603	1.43	1.07	......
1N695	SYL	21FX4836	1.50	1.20	1.00
1N695A	HUG	20F7753	1.44	1.08	......
1N699	HUG	20F7754	1.02	.77	......
1N702	HUG	21FX7736	2.64	1.98	......
1N702	INT	20F1307	2.50	2.00	......
1N702	HOF	21F2065	2.60	2.10	......
1N702A	HUG	21FX7737	3.21	2.41	......
1N703	INT	20F1334	2.50	2.00	......
1N703	HUG	21FX7738	2.53	1.90	......
1N703	TI	21FX5833	2.60	2.10	......
1N703	HOF	21F2066	2.60	2.10	......
1N703A	HUG	21FX7739	2.53	1.89	......
1N704	HUG	21FX7740	2.31	1.73	......
1N704	TI	21FX5834	2.60	2.10	......
1N704	HOF	21F2067	2.60	2.10	......
1N704A	HUG	21FX7741	2.53	1.90	......
1N705	TI	21FX5835	2.60	2.10	......
1N705	HUG	21FX7742	2.20	1.65	......
1N705	INT	20F1337	2.50	2.00	......
1N705	HOF	21F2068	2.60	2.10	......
1N705A	HUG	21FX7743	2.42	1.82	......
1N706	INT	20F1338	2.50	2.00	......
1N706	HUG	21FX7744	2.20	1.65	......
1N706	TI	21FX5836	2.60	2.10	......
1N706	HOF	21F2069	2.60	2.10	......
1N706A	HUG	21FX7745	2.42	1.82	......
1N707	HUG	21FX7746	2.20	1.65	......
1N707	INT	20F1339	2.50	2.00	......
1N707	TI	21FX5837	2.60	2.10	......
1N707	HOF	21F2070	2.60	2.10	......
1N707A	HUG	21FX7747	2.42	1.82	......
1N708	HOF	21FX2200	2.60	2.10	......
1N708	HUG	21FX7748	2.64	1.98	......
1N708	INT	20F1340	2.60	2.10	......
1N708A	HUG	21FX7749	3.21	2.41	......
1N709	INT	20F1341	2.50	2.00	......
1N709	HOF	21FX2201	2.60	2.10	......
1N709	HUG	21FX7750	2.20	1.65	......
1N709	TI	21FX5839	2.60	2.10	......
1N709A	HUG	21FX7751	2.42	1.82	......
1N710	HUG	21FX7752	2.20	1.65	......
1N710	INT	20F1342	2.50	2.00	......
1N710	HOF	21FX2202	2.60	2.10	......
1N710	TI	21FX5840	2.60	2.10	......
1N710A	HUG	21FX7753	2.42	1.82	......
1N711	INT	20F1343	2.50	2.00	......
1N711	HOF	21FX2203	2.60	2.10	......
1N711	HUG	21FX7754	2.20	1.65	......
1N711	TI	21FX5841	2.60	2.10	......
1N711A	HUG	21FX7755	2.42	1.82	......
1N712	INT	20F1344	2.50	2.00	......
1N712	HOF	21FX2204	2.60	2.10	......
1N712	HUG	21FX7756	2.20	1.65	......
1N712	TI	21FX5842	2.60	2.10	......
1N712A	HUG	21FX7757	2.42	1.82	......
1N713	INT	20F1345	2.50	2.00	......
1N713	HOF	21FX2205	2.60	2.10	......
1N713	HUG	21FX7758	2.09	1.57	......
1N713	TI	21FX5843	2.60	2.10	......
1N713A	HUG	21FX7759	2.29	1.72	......
1N714	HUG	21FX7760	2.09	1.57	......
1N714	INT	20F1346	2.50	2.00	......
1N714	HOF	21FX2206	2.60	2.10	......
1N714	TI	21FX5844	2.60	2.10	......
1N714A	HUG	21FX7761	2.29	1.72	......
1N715	HOF	21FX2207	2.60	2.10	......
1N715	INT	20F1347	2.50	2.00	......
1N715	HUG	21FX7762	2.09	1.57	......
1N715	TI	21FX5845	2.60	2.10	......
1N715A	HUG	21FX7763	2.66	2.00	......
1N716	HOF	21FX2208	2.60	2.10	......
1N716	HUG	21FX7764	2.09	1.57	......
1N716	INT	20F1348	2.50	2.00	......
1N716A	HUG	21FX7765	2.66	2.00	......
1N717	HOF	21FX2209	2.60	2.10	......
1N717	HUG	21FX7766	2.09	1.57	......
1N717A	HUG	21FX7767	2.29	1.72	......
1N718	HOF	21FX2210	2.60	2.10	......
1N718	HUG	21FX7768	1.98	1.49	......
1N718A	HUG	21FX7769	2.53	1.90	......
1N719	HOF	21FX2211	2.60	2.10	......
1N719	HUG	21FX7770	1.98	1.49	......
1N719A	HUG	21FX7771	2.53	1.90	......
1N720	HOF	21FX2212	2.60	2.10	......
1N720	HUG	21FX7772	2.64	1.98	......
1N720A	HUG	21FX7773	3.21	2.41	......
1N721	HOF	21FX2213	2.60	2.10	......
1N721	HUG	20F7520	1.98	1.41	......
1N721A	HUG	20F7521	2.53	1.90	......
1N722	HOF	21FX2214	2.60	2.10	......
1N722	HUG	20F7522	2.31	1.73	......
1N722A	HUG	20F7523	2.53	1.90	......
1N723	HOF	21FX2215	2.60	2.10	......
1N723	HUG	20F7524	2.20	1.65	......
1N723A	HUG	20F7525	2.42	1.82	......
1N724	HOF	21FX2216	2.60	2.10	......
1N724	HUG	20F7526	2.75	2.06	......
1N724A	HUG	20F7527	3.04	2.28	......
1N725	HOF	21FX2217	3.50	2.80	......
1N725	HUG	20F7528	2.75	2.06	......
1N725A	HUG	20F7529	3.04	2.28	......
1N726	HOF	21FX2218	3.50	2.80	......
1N727	HOF	21FX2219	3.50	2.80	......
1N728	HOF	21FX2220	3.50	2.80	......
1N729	HOF	21FX2221	3.50	2.80	......
1N730	HOF	21FX2222	3.50	2.80	......
1N731	HOF	21FX2223	3.50	2.80	......
1N732	HOF	21FX2224	3.50	2.80	......
1N733	HOF	21FX2225	3.50	2.80	......
1N735	HOF	21FX2227	3.50	2.80	......
1N736	HOF	21FX2228	3.50	2.80	......
1N737	HOF	21FX2229	3.50	2.80	......
1N738	HOF	21FX2230	3.50	2.80	......
1N739	HOF	21FX2231	3.50	2.80	......
1N740	HOF	21FX2232	3.50	2.80	......
1N741	HOF	21FX2233	3.50	2.80	......
1N742	HOF	21FX2234	3.50	2.80	......
1N743	HOF	21FX2235	3.50	2.80	......
1N744	HOF	21FX2236	3.50	2.80	......
1N745	HOF	21FX2237	3.50	2.80	......
1N746	INT	20F1349	2.60	2.10	......
1N746	HUG	20F7530	2.75	2.06	......
1N746	HOF	20F2157	3.50	3.15	......
1N746	MOT	20F4210	2.60	2.10	......
1N746	TI	21FX5550	2.60	2.10	.95
1N746A	MOT	20F3702	3.60	2.85	......
1N746A	HUG	20F7531	3.60	2.70	......
1N747	HUG	20F7532	2.75	2.06	......
1N747	HOF	20F2158	3.50	3.15	......
1N747	INT	20F1350	2.60	2.10	......
1N747	MOT	20F4211	2.60	2.10	......
1N747	TI	21F5200	2.60	2.10	......
1N747A	MOT	20F3703	3.60	2.85	......
1N747A	HUG	20F7533	3.60	2.70	......
1N748	HUG	20F7534	2.75	2.06	......
1N748	HOF	20F2159	3.50	3.15	......
1N748	MOT	20F4212	2.60	2.10	......
1N748	TI	21F5201	2.60	2.10	......
1N748A	MOT	20F3704	3.60	2.85	......
1N748A	HUG	20F7535	3.60	2.70	......
1N749	HUG	20F7536	2.75	2.06	......
1N749	HOF	20F2160	3.50	3.15	......
1N749	INT	20F1352	2.60	2.10	......
1N749	MOT	20F4213	2.60	2.10	......
1N749	TI	21F5202	2.60	2.10	......
1N749A	MOT	20F3705	3.60	2.85	......
1N749A	HUG	20F7537	3.60	2.70	......
1N750	HUG	20F7538	2.75	2.06	......
1N750	HOF	20F2161	3.50	3.15	......
1N750	INT	20F1353	2.60	2.10	......
1N750	MOT	20F4214	2.60	2.10	......
1N750	TI	21F5203	2.60	2.10	......
1N750A	HUG	20F7539	3.60	2.70	......
1N750A	MOT	20F3706	3.60	2.85	......
1N751	HUG	20F7540	2.75	2.06	......

See Pages 25 to 69 for Complete Listings of Semiconductors by Mfrs.

SEMICONDUCTOR DIRECTORY

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N751	HOF	20F2162	3.50	3.15	......
1N751	INT	20F1354	2.60	2.10	......
1N751	MOT	20F4265	2.60	2.10	......
1N751	TI	21F5204	2.60	2.10	......
1N751A	MOT	20F3707	3.60	2.85	......
1N751A	HUG	20F7541	3.60	2.70	......
1N752	HUG	20F7542	2.75	2.06	......
1N752	HOF	20F2163	3.50	3.15	......
1N752	INT	20F1355	2.60	2.10	......
1N752	MOT	20F4266	2.60	2.10	......
1N752	TI	21F5205	2.60	2.10	......
1N752A	MOT	20F3708	3.60	2.85	......
1N752A	HUG	20F7543	3.60	2.70	......
1N753	HUG	20F7544	2.75	2.06	......
1N753	HOF	20F2164	3.50	3.15	......
1N753	INT	20F1356	2.60	2.10	......
1N753	MOT	20F4267	2.60	2.10	......
1N753	TI	21F5206	2.60	2.10	......
1N753A	MOT	20F3709	3.60	2.85	......
1N753A	HUG	20F7545	3.60	2.70	......
1N754	HUG	20F7546	2.75	2.06	......
1N754	HOF	20F2165	3.50	3.15	......
1N754	INT	20F1357	2.60	2.10	......
1N754	MOT	20F4268	2.60	2.10	......
1N754	TI	21F5207	2.60	2.10	......
1N754A	MOT	20F3710	3.60	2.85	......
1N754A	HUG	20F7547	3.60	2.70	......
1N755	HUG	20F7548	2.75	2.06	......
1N755	HOF	20F2166	3.50	3.15	......
1N755	INT	20F1358	2.60	2.10	......
1N755	MOT	20F4269	2.60	2.10	......
1N755	TI	21F5208	2.60	2.10	......
1N755A	MOT	20F3711	3.60	2.85	......
1N755A	HUG	20F7549	3.60	2.70	......
1N756	HUG	20F7550	2.75	2.06	......
1N756	HOF	20F2167	3.50	3.15	......
1N756	INT	20F1359	2.60	2.10	......
1N756	MOT	20F4270	2.60	2.10	......
1N756	TI	21F5209	2.60	2.10	......
1N756A	HUG	20F7551	3.60	2.70	......
1N756A	MOT	20F3712	3.60	2.85	......
1N757	HUG	20F7552	2.75	2.06	......
1N757	HOF	20F2168	3.50	3.15	......
1N757	INT	20F1360	2.60	2.10	......
1N757	MOT	20F4271	2.60	2.10	......
1N757	TI	21F5210	2.60	2.10	......
1N757A	HUG	20F7553	3.60	2.70	......
1N757A	MOT	20F3713	3.60	2.85	......
1N758	HUG	20F7554	2.75	2.06	......
1N758	HOF	20F2169	3.50	3.15	......
1N758	INT	20F1361	2.60	2.10	......
1N758	MOT	20F4272	2.60	2.10	......
1N758	TI	21F5211	2.60	2.10	......
1N758A	HUG	20F7555	3.60	2.70	......
1N758A	MOT	20F3714	3.60	2.85	......
1N759	HUG	20F7556	2.75	2.06	......
1N759	HOF	20F2170	3.50	3.15	......
1N759	INT	20F1362	2.60	2.10	......
1N759	MOT	20F4273	2.60	2.10	......
1N759	TI	21FX5591	2.60	2.10	......
1N759A	HUG	20F7557	3.60	2.70	......
1N759A	MOT	20F3715	3.60	2.85	......
1N761	HOF	20F2148	2.60	2.10	......
1N761	TI	21FX5861	2.10	1.90	......
1N761	INT	20F8243	2.60	2.10	......
1N762	HOF	20F2149	2.60	2.10	......
1N762	TI	21FX5862	2.10	1.90	......
1N762	INT	20F8244	2.60	2.10	......
1N763	HOF	20F2150	2.60	2.10	......
1N763	TI	21FX5863	2.10	1.90	......
1N763	INT	20F8245	2.60	2.10	......
1N764	HOF	20F2151	2.60	2.10	......
1N764	TI	21FX5864	2.10	1.90	......
1N764	INT	20F8246	2.60	2.10	......
1N765	INT	20F8247	2.60	2.10	......
1N765	HOF	20F2152	2.60	2.10	......
1N765	TI	21FX5865	2.10	1.90	......
1N766	HOF	20F2153	2.60	2.10	......
1N766	INT	20F8248	2.60	2.10	......
1N766	TI	21FX5866	2.10	1.90	......
1N767	HOF	20F2154	2.60	2.10	......
1N768	HOF	20F2155	2.60	2.10	......
1N769	HOF	20F2156	2.60	2.10	......
1N770	HUG	20F7755	.78	.59	......
1N770	SYL	21FX4906	.75	.52	.42
1N771	HUG	20F7756	.96	.72	......
1N771A	HUG	20F7757	1.02	.77	......
1N771B	HUG	20F7758	1.28	.96	......
1N772	HUG	20F7759	.70	.53	......
1N772A	HUG	20F7760	.76	.57	......
1N773	HUG	20F7761	.66	.50	......
1N773A	HUG	20F7762	.72	.54	......
1N774	HUG	20F7763	.64	.48	......
1N774A	HUG	20F7764	.70	.53	......
1N775	HUG	20F7765	.58	.44	......
1N776	HUG	20F7766	.32	.24	......

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N777	HUG	20F7767	.66	.50	......
1N781	HUG	20F7768	.90	.68	......
1N781A	HUG	20F7769	.90	.68	......
1N805	SYL	21FX4903	.34	.26	.22
1N811	GE	20F3317	1.55	1.09	......
1N812	GE	20F3318	2.25	1.58	......
1N813	GE	20F3319	2.00	1.40	......
1N814	GE	20F3320	2.25	1.58	......
1N815	GE	20F3321	2.25	1.58	......
1N816	SYL	21FX4927	.56	.44	.35
1N821	MOT	20F4176	5.50	5.10	4.10
1N821	HOF	21FX2315	5.60	4.10	
1N821	INT	20F8330	5.10	4.10	
1N821A	INT	20F8331	5.65	4.55	

Type	Mfr.	Stk. No.	1-24	25-99	100-up
1N821A	MOT	20F4177	6.10	5.65	4.55

Type	Mfr.	Stk. No.	1-99	100-999	
1N822	HOF	21FX2316	7.75	5.90	
1N823	HOF	21FX2344	6.85	5.50	

Type	Mfr.	Stk. No.	1-24	25-99	100-up
1N823	MOT	20F4178	7.35	6.85	5.50
1N823	INT	20F8332	6.85	5.50	......
1N823A	INT	20F8333	7.50	6.00	......
1N823A	MOT	20F4179	8.00	7.50	6.00

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N824	HOF	21FX2345	10.00	8.00	......
1N825	INT	20F8334	10.55	8.45	......
1N825	MOT	20F4180	11.25	10.55	8.45
1N825A	MOT	20F4181	12.00	11.25	9.00
1N825A	INT	20F8335	12.00	9.00	......
1N827	INT	20F8336	27.00	21.60	......
1N827A	INT	20F8337	29.35	23.50	......
1N827	MOT	20F4182	28.75	27.00	21.60
1N827A	MOT	20F4183	31.25	29.35	23.50
1N830	SYL	21FX4747	3.22	2.52	......
1N830A	SYL	21FX4961	3.85	3.02	......
1N831	SYL	21FX4962	6.85	5.40	......
1N832	SYL	21FX4963	8.90	7.00	......
1N846	HUG	21FX7870	.52	.39	......
1N847	HUG	21FX7871	.64	.48	......
1N848	HUG	21FX7872	.72	.54	......
1N849	HUG	21FX7873	.80	.60	......
1N850	HUG	21FX7874	1.80	1.35	......
1N851	HUG	21FX7875	2.51	1.88	......
1N852	HUG	21FX7876	2.63	1.97	......
1N853	HUG	21FX7877	2.91	2.18	......
1N857	HUG	21FX7881	.48	.36	......
1N858	HUG	21FX7882	.60	.45	......
1N859	HUG	21FX7883	.68	.51	......
1N860	HUG	21FX7884	.76	.57	......
1N861	HUG	21FX7885	1.50	1.13	......
1N862	HUG	21FX7886	2.09	1.57	......
1N863	HUG	21FX7887	2.19	1.64	......
1N864	HUG	21FX7888	2.41	1.81	......
1N872	HUG	20F7907	1.20	.90	......
1N873	HUG	20F7908	1.67	1.25	......
1N874	HUG	20F7909	1.75	1.31	......
1N875....	HUG	20F7910	1.93	1.45	......
1N876	HUG	20F7911	2.28	1.71	......
1N877	HUG	20F7912	2.77	2.08	......
1N878	HUG	20F7913	3.29	2.47	......
1N883	HUG	20F7914	.90	.68	......
1N884	HUG	20F7915	1.25	.94	......
1N885	HUG	20F7916	1.31	.98	......
1N886	HUG	20F7917	1.45	1.09	......
1N887	HUG	20F7918	1.73	1.30	......
1N888	HUG	20F7919	2.08	1.56	......
1N889	HUG	20F7920	2.47	1.85	......
1N891	GE	20F3322	2.50	1.75	......
1N903	HUG	20F7718	2.20	1.65	......
1N903	GE	20F3323	4.05	2.84	......
1N903	SYL	20F4527	2.85	2.28	1.70
1N903A	GE	20F3324	4.05	2.84	......
1N904	HUG	20F7719	1.80	1.35	......
1N904	GE	20F3325	3.85	2.70	......
1N904	SYL	20F4528	2.65	2.15	1.60
1N904A	GE	20F3326	3.85	2.70	......
1N905	HUG	20F7720	1.30	.98	......
1N905	GE	20F3327	3.65	2.56	......
1N905	SYL	20F4529	2.50	2.00	1.50
1N905A	GE	20F3328	3.65	2.56	......
1N906	GE	20F3329	3.25	2.28	......
1N906	HUG	20F7721	1.10	.83	......
1N906	SYL	20F4530	2.20	1.75	1.32
1N906A	GE	20F3330	3.25	2.28	......
1N907	GE	20F3331	3.40	2.38	......
1N907	HUG	20F7722	1.60	1.20	......
1N907	SYL	20F4531	2.50	2.00	1.50
1N907A	GE	20F3332	3.40	2.38	......
1N908	GE	20F3333	3.60	2.52	......

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N908	HUG	20F7723	2.00	1.50	......
1N908	SYL	20F4532	2.85	2.28	1.70
1N908A	GE	20F3334	3.60	2.52	......
1N914	GE	20F3335	3.00	2.40	......
1N914A	GE	20F3336	3.00	2.40	......
1N914	TI	21FX5632	2.40	1.90	......
1N914	HUG	20F7724	3.00	2.25	......
1N914	SYL	21FX4932	3.00	2.40	1.80
1N914A	TI	20F5086	3.20	2.19	......
1N914A	SYL	21FX4931	3.25	2.55	1.96
1N914B	GE	20F3337	4.85	3.26	......
1N914B	TI	20F5087	4.85	3.26	......
1N915	TI	20F5088	4.05	3.03	......
1N916	GE	20F3338	4.05	3.20	......
1N916	TI	21FX5633	3.20	2.60	......
1N916	HUG	20F7725	4.05	3.04	......
1N916	SYL	21FX4933	4.06	3.24	2.43
1N916A	GE	20F3339	4.05	3.20	......
1N916A	TI	20F5089	3.80	3.15	......
1N916A	SYL	21F4934	4.40	3.53	2.64
1N916B	GE	20F3340	4.76	3.80	......
1N916B	TI	20F5090	4.76	3.80	......
1N917	GE	20F3341	4.65	3.84	......
1N917	TI	20F5091	4.65	3.74	......
1N933	SYL	20F4584	1.12	.85	.70
1N935	HOF	21FX2350	4.05	3.25	......

Type	Mfr.	Stk. No.	1-24	25-99	100-up
1N935	MOT	21FX3836	4.05	3.80	3.05
1N935A	HOF	21FX2351	4.40	3.50	
1N935A	MOT	21FX3837	4.40	4.10	3.30
1N935B	MOT	21FX3838	5.00	4.65	3.75
1N935B	HOF	20F2176	5.00	4.00	
1N936	HOF	21FX2352	4.70	3.75	......
1N936	MOT	21FX3839	4.70	4.35	3.50
1N936A	HOF	21FX2353	5.60	4.50	......
1N936A	MOT	21FX3840	5.60	5.25	4.20
1N936B	MOT	21FX3841	6.55	6.10	4.90

Type	Mfr.	Stk. No.	1-99	100-999	
1N936B	HOF	20F2177	6.55	5.25	

Type	Mfr.	Stk. No.	1-24	25-99	100-up
1N937	HOF	21FX2354	7.50	6.00	......
1N937	MOT	21FX3842	7.50	7.00	5.60
1N937A	HOF	21FX2355	8.15	6.50	......
1N937A	MOT	21FX3843	8.15	7.60	6.10
1N937B	MOT	21FX3844	9.05	8.50	6.80

Type	Mfr.	Stk. No.	1-99	100-999	
1N937B	HOF	20F2178	9.05	7.25	
1N938	HOF	21FX2356	9.05	7.25	

Type	Mfr.	Stk. No.	1-24	25-99	100-up
1N938	MOT	21FX3845	9.05	8.50	6.80

Type	Mfr.	Stk. No.	1-99	100-999	
1N938A	HOF	21FX2357	9.80	7.85	

Type	Mfr.	Stk. No.	1-24	25-99	100-up
1N938A	MOT	21FX3846	9.80	9.15	7.35
1N938B	MOT	21FX3847	13.10	12.30	9.85

Type	Mfr.	Stk. No.	1-99	100-999	
1N938B	HOF	20F2179	13.10	10.50	
1N939	HOF	20F2180	21.25	17.00	
1N939A	HOF	20F2181	27.50	22.00	
1N939B	HOF	20F2182	30.60	24.50	

Type	Mfr.	Stk. No.	1-24	25-99	100-up
1N939	MOT	21FX3848	21.25	19.90	15.95
1N939A	MOT	21FX3849	27.50	25.80	20.60
1N939B	MOT	21FX3850	30.60	28.75	23.00
1N941	MOT	20F4184	5.30	4.90	3.90
1N941A	MOT	20F4185	5.60	5.25	4.20
1N941B	MOT	20F4186	6.50	6.05	4.85
1N942	MOT	20F4187	6.05	5.65	4.55
1N942A	MOT	20F4188	7.30	6.80	5.45
1N942B	MOT	20F4189	8.55	8.00	6.40
1N943	MOT	20F4190	9.75	9.10	7.30
1N943A	MOT	20F4191	10.60	9.90	7.95
1N943B	MOT	20F4192	11.85	11.10	8.90
1N944	MOT	20F4193	11.85	11.10	8.90
1N944A	MOT	20F4194	12.80	12.00	9.60
1N944B	MOT	20F4195	17.00	15.90	12.75
1N945	MOT	20F4196	27.50	25.80	20.65
1N945A	MOT	20F4197	37.60	33.40	26.75
1N945B	MOT	20F4198	40.00	37.55	30.00

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N949	SYL	21FX4907	.70	.55	.44
1N949	HUG	20F7775	1.00	.75	......
1N950	HUG	21F7600	3.80	2.85	......
1N951	HUG	21F7601	3.50	2.63	......
1N952	HUG	21F7602	2.90	2.18	......
1N953	HUG	21F7603	3.00	2.25	......
1N954	HUG	21F7604	1.80	1.35	......
1N955	HUG	21F7605	2.00	1.50	......
1N956	HUG	21F7606	2.40	1.80	......
1N957	GE	20F3463	2.35	1.70	......
1N957	MOT	20F3815	2.20	1.70	......
1N957B	HOF	20F2183	4.50	3.60	......
1N957B	MOT	21FX4457	3.60	2.65	......
1N958	GE	20F3464	2.35	1.70	......
1N958	MOT	20F3816	2.20	1.70	......
1N958A	MOT	20F3817	2.55	2.05	......
1N958B	HOF	20F2184	4.50	3.60	......
1N958B	MOT	21FX4458	3.60	2.65	......
1N959	GE	20F3465	2.35	1.70	......
1N959	MOT	20F3818	2.20	1.70	......
1N959A	MOT	20F3819	2.55	2.05	......
1N959B	HOF	20F2185	4.50	3.60	......
1N959B	INT	20F8014	3.60	2.65	......
1N959B	MOT	21FX4459	3.60	2.65	......
1N960	MOT	20F3820	2.20	1.70	......
1N960	GE	20F3466	2.35	1.70	......
1N960A	MOT	20F3821	2.55	2.05	......
1N960B	HOF	20F2186	4.50	3.60	......
1N960B	MOT	21FX4460	3.60	2.65	......
1N961	MOT	20F3822	2.20	1.70	......
1N961	GE	20F3467	2.35	1.70	......
1N961A	MOT	20F3823	2.55	2.05	......
1N961B	HOF	20F2187	4.50	3.60	......
1N961B	MOT	21FX4461	3.60	2.65	......
1N962	MOT	20F3824	2.20	1.70	......
1N962	GE	20F3468	2.35	1.70	......
1N962A	MOT	20F3825	2.55	2.05	......
1N962B	HOF	20F2188	4.50	3.60	......
1N962B	MOT	21FX4462	3.60	2.65	......
1N963	MOT	20F3826	2.20	1.70	......
1N963	GE	20F3469	2.35	1.70	......
1N963A	MOT	20F3827	2.55	2.05	......
1N963B	HOF	20F2189	4.50	3.60	......
1N963B	MOT	21FX4463	3.60	2.65	......
1N964	MOT	20F3828	2.20	1.70	......
1N964	GE	20F3470	2.35	1.70	......
1N964A	MOT	20F3829	2.55	2.05	......
1N964B	HOF	20F2190	4.50	3.60	......
1N964B	MOT	21FX4464	3.60	2.65	......
1N965	MOT	20F3830	2.20	1.70	......
1N965	GE	20F3471	2.35	1.70	......
1N965B	HOF	20F2191	4.50	3.60	......
1N965B	MOT	21FX4465	3.60	2.65	......
1N966	GE	20F3472	2.35	1.70	......
1N966	MOT	20F3831	2.20	1.70	......
1N966B	HOF	20F2192	4.50	3.60	......
1N966B	MOT	21FX4466	3.60	2.65	......
1N967	MOT	20F3832	2.20	1.70	......
1N967	GE	20F3473	2.35	1.70	......
1N967B	HOF	20F2193	4.50	3.60	......
1N967B	MOT	21FX4467	3.60	2.65	......
1N968	MOT	20F3833	2.20	1.70	......
1N968	GE	20F3474	2.35	1.70	......
1N968B	HOF	20F2194	4.50	3.60	......
1N968B	MOT	21FX4468	3.60	2.65	......
1N969	MOT	20F3834	2.20	1.70	......
1N969	GE	20F3475	2.35	1.70	......
1N969B	HOF	20F2195	4.50	3.60	......
1N969B	MOT	21FX4469	3.60	2.65	......
1N970	MOT	20F3835	2.20	1.70	......
1N970	GE	20F3476	2.35	1.70	......
1N970B	HOF	20F2196	4.50	3.60	......
1N970B	MOT	21FX4470	3.60	2.65	......
1N971	GE	20F3477	2.35	1.70	......
1N971	MOT	20F3836	2.20	1.70	......
1N971B	HOF	20F2197	4.50	3.60	......
1N971B	MOT	21FX4471	3.60	2.65	......
1N972	MOT	20F3837	2.75	2.20	......
1N972B	HOF	20F2198	4.50	3.60	......
1N972B	MOT	21FX4472	4.00	3.00	......
1N973	MOT	20F3838	2.75	2.20	......
1N973B	HOF	20F2199	4.50	3.60	......
1N973B	MOT	21FX4473	4.00	3.00	......
1N974	MOT	20F3839	2.75	2.20	......
1N974B	HOF	20F2200	4.50	3.60	......
1N974B	MOT	21FX4474	4.00	3.00	......
1N975B	HOF	20F2201	4.50	3.60	......
1N975B	MOT	21FX4475	4.00	3.00	......
1N976	MOT	20F3840	2.75	2.20	......
1N976B	HOF	20F2202	4.50	3.60	......
1N976B	MOT	21FX4476	4.00	3.00	......
1N977	MOT	20F3841	2.75	2.20	......
1N977A	MOT	20F3842	3.45	2.75	......
1N977B	HOF	20F2203	4.50	3.60	......
1N977B	MOT	21FX4477	4.00	3.00	......
1N978	MOT	20F3843	2.75	2.20	......
1N978B	HOF	20F2204	4.50	3.60	......
1N978B	MOT	21FX4478	4.00	3.00	......
1N979	MOT	20F3844	2.75	2.20	......
1N979B	HOF	20F2205	4.50	3.60	......
1N979B	MOT	21FX4479	4.00	3.00	......
1N980	MOT	20F3845	2.75	2.20	......
1N980B	HOF	20F2206	5.60	4.50	......
1N980B	MOT	21FX4480	4.00	3.00	......
1N981	MOT	20F3846	2.75	2.20	......
1N981B	HOF	20F2207	5.60	4.50	......
1N981B	MOT	21FX4481	4.00	3.00	......
1N982	MOT	20F3847	2.75	2.20	......
1N982B	HOF	20F2208	5.60	4.50	......
1N982B	MOT	21FX4482	4.00	3.00	......
1N983	MOT	20F3848	2.75	2.20	......
1N983B	HOF	20F2209	5.60	4.50	......
1N983B	MOT	21FX4483	4.00	3.00	......
1N984	MOT	20F3849	2.75	2.20	......
1N984B	HOF	20F2210	5.60	4.50	......
1N984B	MOT	21FX4484	4.00	3.00	......
1N985	MOT	20F3850	2.75	2.20	......
1N985B	HOF	20F2211	5.60	4.50	......
1N985B	MOT	21FX4485	4.00	3.00	......
1N986	MOT	20F3851	2.75	2.20	......
1N986B	HOF	20F2212	5.60	4.50	......
1N986B	MOT	21FX4486	4.00	3.00	......
1N987	MOT	20F3852	2.75	2.20	......
1N987B	HOF	20F2213	5.60	4.50	......
1N987B	MOT	21FX4487	4.00	3.00	......
1N988	MOT	20F3853	2.75	2.20	......
1N988B	HOF	20F2214	5.60	4.50	......
1N988B	MOT	21FX4488	4.00	3.00	......
1N989	MOT	20F3854	2.75	2.20	......
1N989B	HOF	20F2215	5.60	4.50	......
1N989B	MOT	21FX4489	4.00	3.00	......
1N990	MOT	20F3855	2.75	2.20	......
1N990B	HOF	20F2216	5.60	4.50	......
1N990B	MOT	21FX4490	4.00	3.00	......
1N991	MOT	20F3856	2.75	2.20	......
1N991B	HOF	20F2217	5.60	4.50	......
1N991B	MOT	21FX4491	4.00	3.00	......
1N992	MOT	20F3857	2.75	2.20	......
1N992B	HOF	20F2225	5.60	4.50	......
1N992B	MOT	21FX4492	4.00	3.00	......
1N995	HUG	20F7773	.76	.57	......
1N995	SYL	21FX4908	1.12	.88	.70
1N997	GE	20F3342	2.90	2.25	......

Type	Mfr	Stk. No.	1-9	10-49	50-99	100-up
1N1081/10M	SAR	21F1505	1.19	1.10	.90	.73
1N1082	INT	20F8207	.85	.85	.85	.63
1N1082/20M	SAR	21F1506	1.25	1.16	1.00	.81
1N1083	INT	20F8208	1.05	1.05	1.05	.84
1N1083/30M	SAR	21F1507	1.34	1.25	1.07	.88
1N1084	INT	20F8209	1.30	1.30	1.30	.90
1N1092/40LF	SAR	21FX1625	6.02	4.86	4.60	4.45

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1095	TI	21F5142	.98	.65	....
1N1095	GE	21F3041	.98	.65	......
1N1095	RCA	21FX7138	1.24	.83	......
1N1095	INT	20F1325	1.07	.71	......
1N1095	MOT	21FX4287	1.24	.80	......
1N1096	INT	20F1326	1.65	1.10	......
1N1096	TI	21F5143	1.43	.95	....
1N1096	GE	21F3054	1.43	.95	......
1N1096	MOT	21FX4288	1.65	1.10	......
1N1100	MOT	20F4088	.91	.60	......
1N1100	TI	20F5092	.92	.61	....
1N1100	GE	21FX3390	.60	.40	......
1N1101	GE	21FX3391	.68	.45	......
1N1101	MOT	20F4089	1.12	.75	......
1N1101	TI	20F5093	1.13	.75	....
1N1102	TI	20F5094	1.46	.97	....
1N1102	GE	21FX3392	.83	.55	......
1N1102	MOT	20F4090	1.45	.95	......
1N1103	GE	21FX3393	.98	.65	......
1N1103	MOT	20F4091	2.13	1.40	......
1N1103	TI	20F5095	2.13	1.42	....
1N1104	MOT	20F4092	3.00	2.00	......
1N1104	TI	20F5096	3.30	2.10	....
1N1105	MOT	20F4093	3.45	2.30	......
1N1105	TI	20F5097	3.60	2.40	....

Type	Mfr	Stk. No.	1-9	10-49	50-99	100-up
1N1108/80SM	SAR	21F1525	4.24	4.10	4.00	3.60
1N1109/120SM	SAR	21F1526	6.37	6.17	6.00	5.40
1N1110/160SM	SAR	21F1527	8.48	8.23	8.00	7.20
1N1111/200SM	SAR	21F1528	10.59	10.28	10.00	9.00
1N1112/240SM	SAR	21F1529	12.72	12.30	12.00	10.80
1N1113/280SM	SAR	21F1530	14.85	14.42	14.00	12.60

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1115	GE	21F3045	1.19	.79	
1N1115	MOT	21FX4294	1.57	1.05	

Type	Mfr.	Stock No.	1-9	10-49	50-99
1N1115	TI	20F5098	1.19	.75	....
1N1116	TI	20F5099	1.25	.83	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1116	GE	21F3046	1.25	.83	....
1N1116	MOT	21FX4295	1.75	1.15	....
1N1117	MOT	21FX4296	2.14	1.40	....
1N1117	GE	21F3047	1.58	1.05	....
1N1117	TI	20F5100	1.58	1.05	....
1N1118	TI	20F5101	1.97	1.31	....
1N1118	GE	21F3048	1.97	1.31	....
1N1118	MOT	21FX4297	3.00	2.00	....
1N1119	MOT	21FX4298	3.00	2.00	....
1N1119	GE	21F3049	1.97	1.31	....
1N1119	TI	20F5102	1.97	1.31	....
1N1120	TI	20F5103	2.85	1.90	....
1N1120	GE	21F3050	2.85	1.90	....
1N1120	MOT	21FX4299	3.70	2.45	....
1N1124	TI	21F5145	2.70	2.21	....
1N1124A	TI	20F5443	2.70	2.21	....
1N1125	TI	21F5146	3.38	2.76	....
1N1125A	TI	20F5444	3.38	2.76	....
1N1126	TI	21F5147	4.73	3.87	....
1N1126A	TI	20F5445	4.73	3.87	....
1N1126R	TI	21F5127	4.73	3.87	....
1N1127	TI	21F5148	6.76	5.56	....
1N1127A	TI	20F5446	6.76	5.56	....
1N1128	TI	21F5134	8.32	6.80	....
1N1128A	TI	20F5447	8.32	6.80	....
1N1130	INT	21FX1342	11.20	....	....
1N1130	TI	21F5136	11.20	7.60	....
1N1131	TI	21F5137	11.20	7.60	....
1N1132	SYL	21FX4748	43.05	33.85	....

Type	Mfr.	Stk. No.	1-9	10-49	50-99	100-up
1N1150A/S-5011A	SAR	21F1531	12.87	12.87	12.87	11.70
1N1157/5RAN	SAR	21F1536	4.85	4.20	3.15	2.65
1N1159/20RAN	SAR	21F1537	6.04	5.15	4.15	3.25
1N1160/30RAN	SAR	21F1538	7.42	6.30	5.10	4.00
1N1162/10SAN	SAR	21F1539	6.83	5.90	4.70	3.70
1N1163/20SAN	SAR	21F1540	7.62	6.50	5.25	4.10
1N1166/10VAN	SAR	21F1542	13.67	11.30	9.30	8.25
1N1167/20VAN	SAR	21F1543	15.59	13.30	11.25	10.20

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1169	MOT	20F4094	1.00	.80	......
1N1183	WES	21FX9870	4.20	3.00	......
1N1183	TI	20F5477	4.20	3.00	......
1N1183A	RCA	21FX7239	2.56	1.71	......
1N1184	TI	20F5478	5.00	3.40	......
1N1184	WES	21FX9871	5.00	3.40	......
1N1184A	RCA	21FX7368	3.22	2.15	......
1N1185	WES	21FX9872	6.00	4.25	......
1N1185	TI	20F5479	6.00	4.25	......
1N1186	TI	20F5480	7.10	4.90	......
1N1186	WES	21FX9873	7.10	4.90	......
1N1186A	RCA	21FX7369	4.70	3.14	......
1N1187	RCA	21FX7241	7.59	5.06	......
1N1187	WES	21FX9874	9.90	6.80	......
1N1187	TI	20F5481	9.90	6.80	......
1N1188	TI	20F5482	13.95	9.20	......
1N1188	RCA	21FX7242	9.90	6.60	......
1N1188	WES	21FX9875	13.95	9.20	......
1N1189	RCA	21FX7243	12.21	8.14	......
1N1189	WES	21FX9876	19.25	13.70	......
1N1189	TI	20F5483	19.95	13.70	......
1N1190	TI	20F5484	25.00	16.25	......
1N1190	RCA	21FX7244	14.60	9.74	......
1N1190	WES	21FX9877	25.00	16.25	......
1N1191	WES	21FX9862	3.50	2.35	......
1N1192	WES	21FX9863	4.25	2.85	......

SEMICONDUCTOR DIRECTORY

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1193	WES	21FX9864	5.10	3.40	......
1N1194	WES	21FX9865	6.10	4.50	......
1N1195	WES	21FX9866	8.75	6.20	......
1N1195A	RCA	20F7034	5.86	3.90	......
1N1195A	GE	20F3050	10.15	6.70	......
1N1196	WES	21FX9867	12.00	8.00	......
1N1196A	RCA	20F7035	8.25	5.50	......
1N1196A	GE	20F3052	14.25	9.50	......
1N1197	WES	21FX9868	16.50	11.00	......
1N1197A	RCA	20F7036	10.73	7.15	......
1N1197A	GE	20F3054	19.50	13.00	......
1N1198	WES	21FX9869	20.00	13.35	......
1N1198A	RCA	20F7037	12.62	8.42	......
1N1198A	GE	20F3056	27.00	18.00	......
1N1199	WES	21FX9854	2.85	1.90	......
1N1199	HUG	20F7508	3.00	1.90	......
1N1199A	RCA	20F7024	1.24	.83	......
1N1199A	GE	21FX3499	2.85	1.90	......
1N1200	WES	21FX9855	3.30	2.20	......
1N1200	HUG	20F7509	3.60	2.20	......
1N1200A	GE	21FX3501	3.30	2.20	......
1N1200A	RCA	20F7025	1.40	.94	......
1N1201	WES	21FX9856	4.35	3.00	......
1N1201	HUG	20F7510	4.35	3.00	......
1N1201A	GE	21FX3503	4.50	3.00	......
1N1202	WES	21FX9857	5.15	3.90	......
1N1202	HUG	20F7511	5.15	3.90	......
1N1202A	GE	21FX3505	5.85	3.90	......
1N1202A	RCA	20F7026	2.72	1.82	......
1N1203	WES	21FX9858	7.30	5.70	......
1N1203	HUG	20F7512	7.30	5.70	......
1N1203A	GE	21FX3507	8.55	5.70	......
1N1203A	RCA	20F7027	4.13	2.75	......
1N1204	WES	21FX9859	10.35	6.80	......
1N1204	HUG	20F7513	10.35	6.80	......
1N1204A	GE	21FX3509	10.35	6.80	......
1N1204A	RCA	20F7028	5.12	3.41	......
1N1205	WES	21FX9860	13.90	9.25	......
1N1205	HUG	20F7514	14.00	9.70	......
1N1205A	GE	21FX3511	13.90	9.25	......
1N1205A	RCA	20F7029	6.60	4.40	......
1N1206	WES	21FX9861	17.50	11.50	......
1N1206	HUG	20F7515	17.49	10.73	......
1N1206A	GE	21FX3513	17.25	11.50	......
1N1206A	RCA	20F7030	8.25	5.50	......
1N1217	MOT	20F4095	.68	.45	......
1N1217	WES	21FX9800	.59	.42	......
1N1217A	MOT	20F4106	.84	.56	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1217A	WES	21F9811	.90	.73	.56

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1218	MOT	20F4096	.77	.51	......
1N1218	WES	21FX9801	.67	.48	......
1N1218A	MOT	20F4107	.99	.66	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1218A	WES	21FX9812	1.06	.86	.66

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1219	MOT	20F4097	.89	.59	......
1N1219	WES	21FX9802	.77	.55	......
1N1219A	MOT	20F4108	1.19	.79	......
1N1219A	WES	21FX9813	1.26	1.03	......
1N1220	MOT	20F4098	.99	.66	......
1N1220	WES	21FX9803	.86	.62	......
1N1220A	MOT	20F4109	1.43	.95	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1220A	WES	21FX9814	1.52	1.24	.95

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1221	MOT	20F4099	1.29	.86	......
1N1221	WES	21FX9804	1.13	.82	......
1N1221A	MOT	20F4110	2.00	1.34	......
1N1221A	WES	21FX9815	2.14	1.75	1.34
1N1222	MOT	20F4100	1.50	1.02	......
1N1222	WES	21FX9805	1.47	1.00	......
1N1222A	MOT	20F4111	2.55	1.70	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1222A	WES	21FX9816	3.02	2.46	1.89

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1223	MOT	20F4101	1.95	1.31	......
1N1223	WES	21FX9806	1.93	1.30	......
1N1223A	MOT	20F4112	3.55	2.38	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1223A	WES	21FX9817	4.24	3.46	2.65

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1224	MOT	20F4102	2.55	1.70	......
1N1224	WES	21FX9807	2.48	1.65	......
1N1224A	MOT	20F4113	4.75	3.19	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1224A	WES	21FX9818	6.00	4.89	3.75

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1225	MOT	20F4103	3.35	2.24	......
1N1225	WES	21FX9808	3.30	2.20	......
1N1226	MOT	20F4104	4.25	2.84	......
1N1226	WES	21FX9809	4.13	2.75	......
1N1227	WES	21FX9819	1.25	.78	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1227A	WES	21FX9830	1.90	1.55	1.19

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1228	WES	21FX9820	1.40	.87	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1228A	WES	21FX9831	2.16	1.76	1.35

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1229	WES	21FX9821	1.55	.97	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1229A	WES	21FX9832	2.46	2.01	1.54

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1230	WES	21FX9822	1.75	1.09	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1230A	WES	21FX9833	2.80	2.28	1.75

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1231	WES	21FX9823	2.20	1.36	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1231A	WES	21FX9834	3.66	2.98	2.29

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1232	WES	21FX9824	2.60	1.68	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1232A	WES	21FX9835	4.76	3.88	2.98

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1233	WES	21FX9825	3.25	2.08	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1233A	WES	21FX9836	6.20	5.05	3.88

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1234	WES	21FX9826	4.00	2.58	......

Type	Mfr.	Stock No.	1-49	50-99	100-999
1N1234A	WES	21FX9837	8.00	6.52	5.00

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1235	WES	21FX9827	5.50	3.40	......
1N1236	WES	21FX9828	7.00	4.25	......

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1237/ S5017	SAR	21F1532	12.87	11.70	......
1N1238/ S5018	SAR	21F1533	12.87	11.70	......
1N1239/ S5019	SAR	21F1534	20.25	18.10	......

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
1N1264/ 10WAN	SAR	21F1545	14.11	12.75	10.75	9.40
1N1264A/ 10XAN	SAR	21F1548	17.23	14.50	12.55	11.50
1N1266A/ 30XAN	SAR	21FX1610	21.83	19.15	16.57	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1313	HOF	21F2096	3.50	2.63	....
1N1313	HUG	20F7776	3.00	2.05	....
1N1313A	HUG	20F7777	3.50	2.50	....
1N1314	HOF	21F2097	3.50	2.63	....
1N1314	HUG	20F7778	3.00	2.05	....
1N1314A	HUG	20F7779	3.50	2.50	....
1N1315	HOF	21F2098	3.50	2.63	....
1N1315	HUG	20F7780	3.00	2.05	....
1N1315A	HUG	20F7781	3.50	2.50	....
1N1316	HOF	21F2099	3.50	2.63	....
1N1316	HUG	20F7782	3.00	2.05	....
1N1316A	HUG	20F7783	3.50	2.50	....
1N1317	HOF	21F2100	3.50	2.63	....
1N1317	HUG	20F7784	3.00	2.05	....
1N1317A	HUG	20F7785	3.50	2.50	....
1N1318	HOF	21F2101	3.50	2.63	....
1N1318	HUG	20F7786	3.00	2.05	....
1N1318A	HUG	20F7787	3.50	2.50	....
1N1319	HOF	21F2102	3.50	2.63	....
1N1319	HUG	20F7788	3.00	2.05	....
1N1319A	HUG	20F7789	3.50	2.50	....
1N1320	HOF	21F2103	3.50	2.63	....
1N1321	HOF	21F2104	3.50	2.63	....
1N1322	HOF	21F2105	3.50	2.63	....
1N1323	HOF	21F2106	3.50	2.63	....
1N1324	HOF	21F2107	3.50	2.63	....
1N1325	HOF	21F2108	3.50	2.63	....
1N1326	HOF	21F2109	3.50	2.63	....
1N1327	HOF	21F2110	3.50	2.63	....
1N1341	WES	21FX9846	2.75	1.75	....
1N1341	HUG	20F7500	2.64	1.72	....
1N1341A	GE	21FX3515	2.63	1.75	....
1N1341A	INT	20F8232	2.80	1.80	....
1N1342	HUG	20F7501	2.95	1.97	....
1N1342	WES	21FX9847	3.00	2.00	....
1N1342A	GE	21FX3517	3.00	2.00	....
1N1342A	INT	20F8233	3.10	2.05	....
1N1343	HUG	20F7502	3.90	2.60	....
1N1343	WES	21FX9848	3.75	2.50	....
1N1343A	GE	21FX3519	3.75	2.50	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N1343A	INT	20F8234	3.80	2.60	....
1N1344	WES	21FX9849	4.50	3.05	....
1N1344A	GE	21FX3521	4.58	3.05	....
1N1344A	INT	20F8235	4.80	3.10	....
1N1345	HUG	20F7504	6.15	4.15	....
1N1345	WES	21FX9850	6.15	4.10	....
1N1345A	GE	21FX3523	6.15	4.10	....
1N1345A	INT	20F8236	6.25	4.15	....
1N1346	HUG	20F7505	8.25	5.50	....
1N1346	WES	21FX9851	8.25	5.75	....
1N1346A	GE	21FX3525	8.63	5.75	....
1N1346A	INT	20F8237	8.63	5.85	....
1N1347	HUG	20F7506	10.20	6.82	....
1N1347	WES	21FX9852	9.75	7.60	....
1N1347A	GE	21FX3527	11.40	7.60	....
1N1347A	INT	20F8238	11.40	7.65	....
1N1348	HUG	20F7507	12.30	8.22	....
1N1348	WES	21FX9853	11.75	8.80	....
1N1348A	GE	21FX3529	13.20	8.80	....
1N1348A	INT	20F8239	13.20	8.65	....

Type	Mfg.	Stock No.	1-24	25-99	100-up
1N1351	HOF	21F2111	7.00	6.56	5.25
1N1352	HOF	21F2112	7.00	6.56	5.25
1N1353	HOF	21F2113	7.00	6.56	5.25
1N1354	HOF	21F2114	7.00	6.56	5.25
1N1355	HOF	21F2115	7.00	6.56	5.25
1N1356	HOF	21F2116	7.00	6.56	5.25
1N1357	HOF	21F2117	7.00	6.56	5.25
1N1358	HOF	21F2118	7.00	6.56	5.25
1N1359	HOF	21F2119	7.00	6.56	5.25
1N1360	HOF	21F2120	7.00	6.56	5.25
1N1361	HOF	21F2121	7.00	6.56	5.25
1N1362	HOF	21F2122	7.00	6.56	5.25
1N1363	HOF	21F2123	7.00	6.56	5.25
1N1364	HOF	21F2124	7.00	6.56	5.25
1N1365	HOF	21F2125	7.00	6.56	5.25
1N1366	HOF	21F2126	7.00	6.56	5.25
1N1367	HOF	21F2127	7.00	6.56	5.25
1N1368	HOF	21F2128	7.00	6.56	5.25
1N1369	HOF	21F2129	7.00	6.56	5.25
1N1370	HOF	21F2130	7.00	6.56	5.25
1N1371	HOF	21F2131	7.00	6.56	5.25
1N1372	HOF	21F2132	7.00	6.56	5.25
1N1373	HOF	21F2133	7.00	6.56	5.25
1N1374	HOF	21F2134	7.00	6.56	5.25
1N1375	HOF	21F2135	7.00	6.56	5.25
1N1396	WES	21FX9878	8.25	6.70	....
1N1397	WES	21FX9879	10.00	8.15	....
1N1398	WES	21FX9880	11.50	9.35	....
1N1399	WES	21FX9881	13.60	11.10	....
1N1400	WES	21FX9882	17.75	14.75	....
1N1401	WES	21FX9883	24.25	19.75	....
1N1402	WES	21FX9884	29.00	23.60	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N409	INT	23F608	8.00	....	....
1N410	INT	23F609	9.00	....	....
1N411	INT	23F610	11.00	....	....
1N412	INT	23F611	13.50	....	....
1N413	INT	23F612	15.50	....	....
1N1443	MOT	20F4105	7.15	4.78	....
1N1444	WES	21FX9829	10.00	6.80	....
1N1487	MOT	20F4114	.75	.50	....
1N1487	GE	21F3060	.60	.40	....
1N1487	TI	20F5104	.69	.46	....
1N1488	GE	21F3061	.68	.45	....
1N1488	MOT	20F4115	.90	.60	....
1N1488	TI	20F5105	.81	.54	....
1N1489	GE	21F3062	.83	.55	....
1N1489	MOT	20F4116	1.12	.75	....
1N1489	TI	20F5106	1.04	.69	....
1N1490	GE	21F3063	.98	.65	....
1N1490	MOT	20F4117	1.20	.80	....
1N1490	TI	20F5107	1.19	.79	....
1N1491	GE	21F3064	.98	.65	....
1N1491	MOT	20F4118	1.27	.83	....
1N1491	TI	20F5107	1.19	.79	....
1N1492	GE	21F3065	1.43	.95	....
1N1492	MOT	20F4119	2.28	1.52	....
1N1492	TI	20F5109	2.00	1.33	....
1N1512	INT	21F955	3.30	2.65	......
1N1513	INT	21F956	3.30	2.65	......
1N1513A	INT	21FX1416	3.95	3.15	......
1N1514	INT	21F957	3.30	2.65	......
1N1515	INT	21F958	3.30	2.65	......
1N1515A	INT	21FX1418	3.96	3.18	......
1N1516	INT	21F959	3.30	2.65	......
1N1516A	INT	21FX1419	3.96	3.18	......
1N1517	INT	21F960	3.30	2.65	......
1N1517A	INT	21FX1420	3.96	3.18	......
1N1518	INT	21F976	4.25	3.40	......
1N1518A	INT	21FX1421	5.05	4.05	......
1N1519	INT	21F977	4.25	3.40	......
1N1519A	INT	21FX1422	5.05	4.05	......
1N1520	INT	21F978	3.10	2.45	......
1N1520A	INT	21FX1423	3.70	2.45	......
1N1521	INT	21F979	3.10	2.95	......
1N1521A	INT	21FX1424	3.70	2.95	......
1N1522	INT	21F980	3.10	2.45	......
1N1522A	INT	21FX1425	3.70	2.95	......
1N1523	INT	21F981	3.10	2.45	......
1N1523A	INT	21FX1426	3.70	2.95	......
1N1524	INT	21F982	3.10	2.45	......
1N1524A	INT	21FX1427	3.70	2.95	......
1N1525	INT	21F983	3.10	2.45	......
1N1525A	INT	21FX1428	3.70	2.95	......
1N1526	INT	21F984	3.10	2.45	......
1N1526Z	INT	21FX1429	3.70	2.95	......
1N1527	INT	21F985	3.10	2.45	......
1N1527A	INT	21FX1430	3.70	2.95	......
1N1528	INT	21F986	3.10	2.45	......
1N1528A	INT	21FX1431	3.70	2.95	......
1N1530	HOF	21F2050	16.00	13.30	......
1N1530A	HOF	21F2051	24.00	19.95	......
1N1530	INT	20F8328	15.60	13.30	......
1N1530A	INT	20F8329	23.40	19.95	......
1N1537	MOT	20F4168	1.75	1.19	......
1N1538	MOT	20F4169	2.30	1.54	......
1N1539	MOT	20F4170	2.40	1.61	......
1N1540	MOT	20F4171	2.60	1.75	......
1N1541	MOT	20F4172	3.09	2.06	......
1N1542	MOT	20F4173	4.00	2.68	......
1N1543	MOT	20F4174	5.25	3.50	......
1N1544	MOT	20F4175	6.35	4.25	......
1N1563	MOT	21F4060	1.35	.90	......
1N1563A	MOT	21F4056	1.70	1.15	......
1N1564	MOT	21F4061	1.45	.97	......
1N1564A	MOT	21F4057	2.10	1.40	......
1N1565	MOT	21F4062	1.60	1.05	......
1N1565A	MOT	21F4058	2.25	1.50	......
1N1566	MOT	21F4063	1.75	1.15	......
1N1566A	MOT	21F4059	2.80	1.85	......
1N1581	TI	20F5110	2.45	1.85	......
1N1581	HUG	20F7800	2.44	1.83	......
1N1582	TI	20F5111	3.50	2.65	......
1N1582	HUG	20F7801	2.50	2.00	......
1N1583	TI	20F5112	4.45	3.35	......
1N1583	HUG	20F7802	4.44	3.33	......
1N1584	TI	20F5113	7.25	5.45	......
1N1584	HUG	20F7803	6.47	4.85	......
1N1585	TI	20F5114	9.95	7.50	......
1N1585	HUG	20F7804	8.65	6.48	......
1N1586	TI	20F5115	12.75	9.60	......
1N1586	HUG	20F7805	10.84	8.13	......
1N1587	TI	20F5116	15.50	11.65	......
1N1587	HUG	20F7806	13.20	9.90	......
1N1588	INT	23F632	5.30	4.25	......
1N1588A	INT	20F1363	6.40	5.10	......
1N1589	INT	23F633	5.30	4.25	......
1N1589A	INT	20F1364	6.40	5.10	......
1N1590	INT	23F634	3.85	3.10	......

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1590A	INT	20F1365	4.60	3.70	......
1N1591	INT	23F635	3.85	3.10	......
1N1592	INT	23F636	3.85	3.10	......
1N1593	INT	23F637	3.85	3.10	......
1N1593A	INT	20F1368	4.60	3.70	......
1N1594	INT	23F638	3.85	3.10	......
1N1594A	INT	20F1369	4.60	3.70	......
1N1595	INT	23F639	3.85	3.10	......
1N1595A	INT	20F1370	4.60	3.70	......
1N1596A	INT	20F1371	4.60	3.70	......
1N1597	INT	23F641	3.85	3.10	......
1N1597A	INT	20F1372	4.60	3.70	......
1N1598	INT	23F642	3.85	3.10	......
1N1598A	INT	20F1373	4.60	3.70	......
1N1599	INT	21F963	7.45	5.95	......
1N1599A	INT	20F1374	9.70	7.75	......
1N1600	INT	21F964	7.45	5.95	......
1N1600A	INT	20F1375	9.70	7.75	......
1N1601	INT	21F965	6.20	4.95	......
1N1601A	INT	20F1376	8.05	6.45	......
1N1602	INT	21F966	6.20	4.95	......

Type	Mfr.	Stk. No.	1-24	25-99	100-999
1N1602	HOF	20F2302	6.60	6.19	4.95
1N1603	HOF	20F2218	6.60	6.19	4.95

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1603	INT	21F967	6.20	4.95	......
1N1603A	INT	20F1378	5.08	6.45	......

Type	Mfr.	Stk. No.	1-24	25-99	100-999
1N1604	HOF	20F2219	6.60	6.19	4.95

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1604	INT	21F968	6.20	4.95	......
1N1604A	INT	20F1379	8.05	6.95	......

Type	Mfr.	Stk. No.	1-24	25-99	100-999
1N1605	HOF	20F2220	6.60	6.19	4.95

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1605	INT	21F969	6.20	4.95	......
1N1605A	INT	20F1380	8.05	6.95	......

Type	Mfr.	Stk. No.	1-24	25-99	100-999
1N1606	HOF	20F2221	6.60	6.19	4.95

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1606	INT	21F970	6.20	4.95	......

Type	Mfr.	Stk. No.	1-24	25-99	100-999
1N1607	HOF	20F2222	6.60	6.19	4.95

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1607	INT	21F971	6.20	4.95	......
1N1607A	INT	20F1382	8.05	6.45	......

Type	Mfr.	Stk. No.	1-24	25-99	100-999
1N1608	HOF	20F2223	6.60	6.19	4.95

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1608	INT	21F972	6.20	4.95	......
1N1609	HOF	20F2224	6.60	6.19	4.95

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1609	INT	21F973	6.20	4.95	......
1N1609A	INT	20F1384	8.05	6.45	......
1N1612	TI	20F5127	2.45	1.85	......
1N1612	HUG	20F7629	2.45	1.85	......
1N1612	GE	20F3088	2.78	1.85	......
1N1612	RCA	20F7043	1.07	.72	......
1N1613	GE	20F3089	3.15	2.10	......
1N1613	TI	20F5128	3.50	2.65	......
1N1613	HUG	20F7630	3.50	2.65	......
1N1613	RCA	20F7044	1.24	.83	......
1N1614	TI	21FX5637	5.84	3.89	......
1N1614	HUG	20F7631	5.10	3.80	......
1N1614	GE	20F3090	4.58	3.05	......
1N1614	RCA	20F7045	1.90	1.27	......
1N1615	GE	20F3091	7.50	5.00	......
1N1615	HUG	20F7632	8.25	5.40	......
1N1615	TI	21FX5638	8.34	5.55	......
1N1615	RCA	20F7046	4.13	2.75	......
1N1616	HUG	20F7633	12.20	8.30	......
1N1616	TI	21FX5639	12.75	8.50	......
1N1616	GE	20F3092	12.00	8.00	......
1N1616	RCA	20F7047	6.02	4.02	......

Type	Mfr.	Stk. No.	1-24	25-99	100-up
1N1660	WES	21FX9893	12.00	9.80	......
1N1661	WES	21FX9894	14.60	11.90	......
1N1662	WES	21FX9895	17.80	14.50	......
1N1663	WES	21FX9896	21.80	17.75	......
1N1664	WES	21FX9897	32.00	26.10	......
1N1665	WES	21FX9898	46.30	37.75	......
1N1666	WES	21FX9899	67.00	54.60	......
1N1670	WES	21FX9907	19.00	15.50	......
1N1671	WES	21FX9908	22.80	18.60	......
1N1672	WES	21FX9909	26.30	21.45	......
1N1673	WES	21FX9910	32.30	26.30	......
1N1674	WES	21FX9911	48.00	39.10	......
1N1675	WES	21FX9912	62.80	51.20	......
1N1676	WES	21FX9913	82.20	67.00	......

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1692	MOT	20F4120	.70	.45	......
1N1692	INT	20F8195	.62	.41	......
1N1692	TI	20F5129	.63	.39	......
1N1692	GE	21F3068	.59	.39	......
1N1693	GE	21F3069	.63	.42	......
1N1693	INT	20F8196	.72	.48	......
1N1693	MOT	20F4121	.85	.55	......
1N1693	TI	20F5130	.78	.51	......
1N1694	GE	21F3070	.78	.52	......
1N1694	INT	20F8197	.90	.60	......
1N1694	MOT	20F4122	1.05	.70	......
1N1694	TI	20F5131	.95	.63	......
1N1695	GE	21F3071	.96	.64	......
1N1695	INT	20F8198	1.01	.67	......
1N1695	MOT	20F4123	1.15	.75	......
1N1695	TI	20F5132	1.02	.68	......
1N1696	GE	21FX3476	.96	.64	......

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1696	MOT	20F4124	1.20	.80	......
1N1696	TI	20F5133	1.02	.68	......
1N1697	GE	21FX3477	1.41	.94	......
1N1697	TI	20F5134	1.79	1.19	......
1N1697	MOT	20F4125	1.93	1.28	......
1N1701	INT	20F1312	.75	.58	......
1N1702	INT	20F1313	.87	.68	......
1N1703	INT	20F1314	1.01	.78	......
1N1705	INT	20F1316	1.57	1.20	......
1N1706	INT	20F1317	2.59	1.98	......

Type	Mfr.	Stk. No.	1-49	50-99	100 up
1N1730	HUG	21FX7892	6.83	5.95	......
1N1731	HUG	21FX7893	7.98	6.93	......
1N1732	HUG	21FX7894	10.22	8.99	......
1N1733	HUG	21FX7895	14.98	13.02	......
1N1734	HUG	21FX7897	25.20	21.91	......

Type	Mfr.	Stk. No.	1-99	100-999	1000-up
1N1735	HOF	21F2175	7.60	5.28	......
1N1736	HOF	21F2176	10.40	8.30	......
1N1736A	HOF	21F2177	16.40	12.30	......
1N1737	HOF	21F2178	15.20	11.40	......
1N1737A	HOF	21F2179	23.60	17.70	......
1N1738	HOF	21F2180	20.00	15.00	......
1N1738A	HOF	21F2181	30.80	23.10	......
1N1739	HOF	21F2182	24.80	18.60	......
1N1739A	HOF	21F2183	38.00	28.50	......
1N1740	HOF	21F2184	29.60	22.20	......
1N1740A	HOF	21F2185	45.40	33.90	......
1N1741	HOF	21F2186	34.40	25.80	......
1N1741A	HOF	21F2187	52.40	39.30	......
1N1742	HOF	21F2188	39.20	29.40	......
1N1742A	HOF	21F2189	57.60	43.20	......
1N1763	RCA	21F7028	.76	.51	......

Type	Mfr.	Stk No.	1-24	25-99	100-999
1N1763	RAY	21FX9605	.92	.62	......
1N1764	RCA	21F7029	.84	.56	......
1N1766	HOF	21FX2239	3.50	3.30	2.63
1N1767	HOF	21FX2240	3.50	3.30	2.63
1N1768	HOF	21FX2241	3.50	3.30	2.63
1N1768A	INT	20F8345	4.70	3.75	......
1N1769	HOF	21FX2242	3.50	3.30	2.63
1N1769A	INT	20F8346	4.70	3.75	......
1N1770	HOF	21FX2243	3.50	3.30	2.63
1N1770A	INT	20F8347	4.70	3.45	......
1N1771	HOF	21FX2244	3.50	3.30	2.63
1N1771	INT	20F8348	4.70	3.75	......
1N1772	HOF	21FX2245	3.50	3.30	2.63
1N1772A	INT	20F8349	4.70	3.75	......
1N1773	HOF	21FX2195	3.50	3.30	2.63
1N1773A	INT	20F8350	4.70	3.75	......
1N1774	HOF	21FX2246	3.50	3.30	2.63
1N1774A	INT	20F8351	4.70	3.75	......
1N1775	HOF	21FX2247	3.50	3.30	2.63
1N1775A	INT	20F8352	4.70	3.75	......
1N1776	HOF	21FX2248	3.50	3.30	2.63

SEMICONDUCTOR DIRECTORY

Type	Mfr.	Stock No.	1-24	25-99	100-999
1N1776A	INT	20F8353	4.70	4.70	3.75
1N1777	HOF	21FX2199	3.50	3.30	2.63
1N1777A	INT	20F8354	4.70	4.70	3.75
1N1778	HOF	21FX2249	3.50	3.30	2.63
1N1778A	INT	20F8355	4.70	4.70	3.75
1N1779	HOF	21FX2250	3.50	3.30	2.63
1N1779A	INT	20F8356	4.70	4.70	3.75
1N1780	HOF	21FX2251	3.50	3.30	2.63
1N1780A	INT	20F8357	4.70	4.70	3.75
1N1781	HOF	21FX2252	3.50	3.30	2.63
1N1781A	INT	20F8358	4.70	4.70	3.75
1N1782	HOF	21FX2253	4.90	4.60	3.68
1N1782A	INT	20F8359	6.00	6.00	4.80
1N1783	HOF	21FX2254	4.90	4.60	3.68
1N1783A	INT	20F8360	6.00	6.00	4.80
1N1784	HOF	21FX2255	4.90	4.60	3.68
1N1784A	INT	20F8361	6.00	6.00	4.80
1N1785	HOF	21FX2256	4.90	4.60	3.68
1N1785A	INT	20F8362	6.00	6.00	4.80
1N1786	HOF	21FX2257	4.90	4.60	3.68
1N1786A	INT	20F8363	6.00	6.00	4.80
1N1787	HOF	21FX2258	4.90	4.60	3.68
1N1787A	INT	20F8364	6.00	6.00	4.80
1N1788	HOF	21FX2259	4.90	4.60	3.68
1N1788A	INT	20F8365	6.00	6.00	4.80
1N1789	HOF	21FX2260	4.90	4.60	3.68
1N1789A	INT	20F8366	6.00	6.00	4.80
1N1790	HOF	21FX2261	4.90	4.60	3.68
1N1790A	INT	20F8367	6.00	6.00	4.80
1N1791	HOF	21FX2262	4.90	4.60	3.68
1N1791A	INT	20F8368	6.00	6.00	4.80
1N1792	HOF	21FX2263	4.90	4.60	3.68
1N1792A	INT	20F8369	6.00	6.00	4.80
1N1793	HOF	21FX2264	4.90	4.60	3.68
1N1793A	INT	20F8370	6.00	6.00	4.80
1N1794	HOF	21FX2265	4.90	4.60	3.68
1N1794A	INT	20F8371	6.00	6.00	4.80
1N1795	HOF	21FX2266	4.90	4.60	3.68
1N1795A	INT	20F8372	6.00	6.00	4.80
1N1796	HOF	21FX2267	5.60	5.25	4.20
1N1796A	INT	20F8373	7.85	7.85	6.30
1N1797	HOF	21FX2268	5.60	5.25	4.20
1N1797A	INT	20F8374	7.85	7.85	6.30
1N1798	HOF	21FX2269	5.60	5.25	4.20
1N1798A	INT	20F8375	7.85	7.85	6.30
1N1799	HOF	21FX2270	5.60	5.25	4.20
1N1799A	INT	20F8376	7.85	7.85	6.30
1N1800	HOF	21FX2271	5.60	5.25	4.20
1N1800A	INT	20F8377	7.85	7.85	6.30
1N1801	HOF	21FX2272	5.60	5.25	4.20
1N1801A	INT	20F8378	7.85	7.85	6.30
1N1802	HOF	21FX2273	5.60	5.25	4.20
1N1802A	INT	20F8379	7.85	7.85	6.30
1N1804	HOF	20F2301	7.00	6.56	5.25
1N1805	HOF	21FX2276	7.00	6.56	5.25
1N1806	HOF	21FX2277	7.00	6.56	5.25
1N1807	HOF	21FX2278	7.00	6.56	5.25
1N1808	HOF	21FX2279	7.00	6.56	5.25
1N1809	HOF	21FX2280	7.10	6.75	5.33
1N1810	HOF	21FX2281	7.10	6.75	5.33
1N1811	HOF	21FX2282	7.10	6.75	5.33
1N1812	HOF	21FX2283	7.10	6.75	5.33
1N1813	HOF	21FX2284	9.70	9.10	7.28
1N1814	HOF	21FX2285	9.70	9.10	7.28
1N1815	HOF	21FX2286	9.70	9.10	7.28
1N1816	HOF	20F2229	6.80	6.38	5.10
1N1816	TI	21F5212	8.45	8.45	6.50
1N1817	HOF	20F2230	6.80	6.38	5.10
1N1817	TI	21F5213	8.45	8.45	6.50
1N1818	HOF	20F2231	6.80	6.38	5.10
1N1818	TI	21F5111	8.45	8.45	6.50
1N1819	HOF	20F2232	6.80	6.38	5.10
1N1819	TI	21F5214	8.45	8.45	6.50
1N1820	HOF	20F2233	6.80	6.38	5.10
1N1820	TI	21F5215	8.45	8.45	6.50
1N1821	HOF	20F2234	6.80	6.38	5.10
1N1821	TI	21F5104	8.45	8.45	6.50
1N1822	HOF	20F2235	6.80	6.38	5.10
1N1822	TI	21F5216	8.45	8.45	6.50
1N1823	HOF	20F2236	6.80	6.38	5.10
1N1823	TI	21F5105	8.45	8.45	6.50
1N1824	HOF	20F2237	6.80	6.38	5.10
1N1824	TI	21F5217	8.45	8.45	6.50
1N1825	HOF	20F2238	6.80	6.38	5.10
1N1825	TI	21F5106	8.45	8.45	6.50
1N1826	HOF	20F2239	6.80	6.38	5.10
1N1826	TI	21F5218	8.45	8.45	6.50
1N1827	HOF	20F2240	6.80	6.38	5.10
1N1827	TI	21F5107	8.45	8.45	6.50
1N1828	HOF	20F2241	8.80	6.38	5.10
1N1828	TI	21F5219	8.45	8.45	6.50
1N1829	HOF	20F2242	6.80	6.38	5.10
1N1829	TI	21F5108	8.45	8.45	6.50
1N1830	HOF	20F2243	6.80	6.38	5.10
1N1830	TI	21F5109	8.45	8.45	6.50
1N1831	HOF	20F2244	6.80	6.38	5.10

Type	Mfr.	Stock No.	1-24	25-99	100-up
1N1831	TI	21F5110	8.45	8.45	6.50
1N1832	HOF	20F2245	6.80	6.38	5.10
1N1832	TI	21F5220	8.45	8.45	6.50
1N1833	HOF	20F2246	6.80	6.38	5.10
1N1833	TI	21F5221	8.45	8.45	6.50
1N1834	HOF	20F2247	6.80	6.38	5.10
1N1834	TI	21F5222	8.45	8.45	6.50
1N1835	HOF	20F2248	6.80	6.38	5.10
1N1835	TI	21F5223	8.45	8.45	6.50
1N1836	HOF	20F2249	6.80	6.38	5.10
1N1836	TI	21F5224	8.45	8.45	6.50
1N1929	INT	20F8249	8.25	8.25	6.60
1N1930	INT	20F8250	8.25	8.25	6.60
1N1931	INT	20F8251	4.70	4.70	3.75
1N1932	INT	20F8252	3.75	3.75	3.00
1N1933	INT	20F8253	3.75	3.75	3.00
1N1934	INT	20F8254	3.75	3.75	3.00
1N1935	INT	20F8255	3.75	3.75	3.00
1N1936	INT	20F8256	3.75	3.75	3.00
1N1937	INT	20F8257	3.75	3.75	3.00
1N2008	HOF	20F2250	6.80	6.38	5.10
1N2008	TI	21F5350	8.45	8.45	6.50
1N2009	HOF	20F2251	10.93	10.25	8.20
1N2009	TI	21F5351	8.45	8.45	6.50
1N2010	HOF	20F2252	10.93	10.25	8.20
1N2010	TI	21F5352	8.45	8.45	6.50
1N2011	HOF	20F2253	10.93	10.25	8.20
1N2011	TI	21F5353	8.45	8.45	6.50
1N2012	HOF	20F2254	10.93	10.25	8.20
1N2043	HOF	21FX2302	6.60	6.19	4.95
1N2044	HOF	21FX2303	6.60	6.19	4.95
1N2045	HOF	21FX2304	6.60	6.19	4.95
1N2046	HOF	21FX2305	6.60	6.19	4.95
1N2047	HOF	21FX2306	6.60	6.19	4.95
1N2048	HOF	21FX2307	6.60	6.19	4.95
1N2049	HOF	21FX2308	6.60	6.19	4.95
1N2054	INT	21FX1400	12.40	12.40	....
1N2055	INT	21FX1401	14.90	14.90	....
1N2056	INT	21FX1402	17.80	17.80	....

Type	Mfr.	Stock No.	1-24	25-99	100-999
1N2059	INT	21FX1405	27.10	27.10	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N2069	TI	21F5096	.76	.51	....
1N2069	SYL	21FX4737	.76	.51	.41
1N2069A	INT	20F8204	.51	.51	....
1N2069A	SYL	20F4516	.76	.51	.41
1N2070	SYL	21FX4735	.96	.64	.50
1N2070	TI	21F5097	.96	.64	.50
1N2070A	INT	20F8205	.62	.62	....
1N2070A	SYL	20F4517	.96	.64	.50
1N2071	TI	21F5098	1.49	.99	....
1N2071	SYL	21FX4736	1.49	.99	.61
1N2071A	SYL	20F4518	1.49	.99	.61
1N2071A	INT	20F8206	.80	.80	....
1N2117	TI	20F5475	9.95	6.25	....
1N2128	INT	21FX1334	3.27	2.59	....
1N2128A 25H5	INT	23F613	4.65	3.00	....
1N2129	INT	21FX1335	3.85	3.04	....
1N2130	INT	21FX1336	4.58	3.60	....
1N2130A 25H15	INT	23F615	6.05	4.30	....
1N2131	INT	21FX1337	5.25	4.10	....
1N2131A 25H20	INT	23F616	7.10	4.90	....
1N2132	INT	21FX1338	5.80	4.50	....
1N2133	INT	21FX1339	6.35	4.90	....
1N2133A 25H30	INT	23F618	9.90	6.80	....
1N2134A 25H35	INT	23F619	11.80	7.80	....
1N2135	INT	21FX1340	6.70	5.20	....
1N2135A 25H40	INT	23F620	13.95	9.20	....
1N2137	INT	21FX1341	7.30	5.80	....
1N2147	HUG	20F7566	4.20	2.68	....
1N2148	HUG	20F7567	4.75	2.99	....
1N2149	HUG	20F7568	5.90	2.24	....
1N2150	HUG	20F7569	7.30	4.60	....
1N2151	HUG	20F7570	9.10	5.73	....
1N2152	HUG	20F7571	11.50	7.43	....
1N2153	HUG	20F7572	14.50	9.14	....
1N2154	GE	21F3055	4.05	2.70	....
1N2154	HUG	20F7849	3.80	2.54	....
1N2155	HUG	20F7850	4.52	3.02	....
1N2155	GE	21F3056	5.10	3.40	....
1N2156	GE	21F3057	7.28	4.85	....
1N2156	HUG	20F7851	5.88	3.94	....
1N2157	GE	21F3058	9.15	6.10	....
1N2157	HUG	20F7852	8.32	5.57	....
1N2158	GE	21FX3398	11.00	7.35	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N2158	HUG	20F7853	11.65	7.80	....
1N2159	HUG	20F7854	16.25	10.90	....
1N2159	GE	21FX3399	15.25	10.15	....
1N2160	GE	21FX3400	20.10	13.40	....
1N2160	HUG	20F7855	21.40	14.35	....
1N2175	TI	21F5095	11.50	8.00	....
1N2246	HUG	20F7807	3.00	2.02	....
1N2247	HUG	20F7856	3.50	2.52	....
1N2248	HUG	20F7808	3.35	2.24	....
1N2249	HUG	20F7857	3.85	2.74	....
1N2250	HUG	20F7809	5.20	3.48	....
1N2251	HUG	20F7858	5.70	3.98	....
1N2252	HUG	20F7810	7.00	4.68	....
1N2253	HUG	20F7859	7.50	5.18	....
1N2254	HUG	20F7811	10.00	6.70	....
1N2255	HUG	20F7860	10.50	7.20	....
1N2256	HUG	20F7812	14.10	9.45	....
1N2257	HUG	20F7861	14.60	9.95	....
1N2258	HUG	20F7813	17.00	11.38	....
1N2259	HUG	20F7664	17.50	11.88	....
1N2260	HUG	20F7814	22.90	15.35	....
1N2261	HUG	20F7665	23.40	15.85	....
1N2262	HUG	20F7815	28.90	19.35	....
1N2263	HUG	20F7666	29.40	19.85	....

Type	Mfr.	Stock No.	1-49	50-99	100-499
1N2326	RCA	20F7038	.50	.50	.33
1N2382	HUG	21FX7896	22.05	19.18	16.52
1N2383	HUG	21FX7898	30.31	26.36	22.72
1N2384	HUG	21FX7899	37.35	32.48	28.00
1N2385	HUG	21FX7900	46.55	40.50	34.90

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N2389/S-525	SAR	21FX1616	6.04	6.04	5.85
1N2446	HUG	20F7835	3.80	3.80	2.55
1N2447	HUG	20F7836	4.51	4.51	3.02
1N2449	HUG	20F7837	5.89	5.89	3.95
1N2451	HUG	20F7838	8.30	8.30	5.56
1N2453	HUG	20F7839	11.63	11.63	7.80
1N2455	HUG	20F7840	21.40	21.40	14.32
1N2457	HUG	20F7841	33.75	33.75	22.60
1N2458	HUG	20F7842	4.00	4.00	2.68
1N2459	HUG	20F7843	4.75	4.75	3.18
1N2461	HUG	20F7844	6.20	6.20	4.15
1N2463	HUG	20F7845	8.75	8.75	5.86
1N2465	HUG	20F7846	12.25	12.25	8.21
1N2467	HUG	20F7847	22.50	22.50	15.10
1N2469	HUG	20F7848	35.50	35.50	23.80
1N2482	SYL	21FX4944	.63	.41	.31

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
1N2482/F-2	SAR	20FX1617	.99	.80	.70	.60

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N2483	SYL	21FX4945	.93	.62	.50

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
1N2483/F-4	SAR	21FX1618	1.14	.95	.85	.75

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N2484	SYL	21FX4946	1.19	.79	.63

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
1N2484/F-6	SAR	21FX1619	1.24	1.10	.90	.85
1N2485/20H	SAR	21FX1621	1.04	.85	.75	.65
1N2487/40H	SAR	21FX1622	1.09	1.00	.90	.80
1N2489/60H	SAR	21FX1623	1.48	1.30	1.20	1.10
1N2490/S-5207	SAR	21FX1615	12.87	12.87	12.87	11.70

Type	Mfr.	Stock No.	1-24	24-99	100-up
1N2491	HUG	20F7816	2.99	2.99	2.00
1N2492	HUG	20F7817	3.61	3.61	2.42
1N2493	HUG	20F7818	5.55	5.55	3.72
1N2494	HUG	20F7819	7.48	7.48	5.00
1N2495	HUG	20F7820	9.73	9.73	6.52
1N2496	HUG	20F7821	12.40	12.40	8.32
1N2497	HUG	20F7822	14.95	14.95	10.00
1N2498	HOF	20F2226	6.80	6.38	5.10
1N2498	TI	21FX5754	8.45	6.50	5.95
1N2499	HOF	20F2227	6.80	6.38	5.10

Type	Mfr.	Stock No.	1-99	100-999	1000-Up
1N2499	TI	21FX5755	8.45	6.50	....
1N2500	TI	21FX5756	8.45	6.50	....

See Pages 25 to 69 for Complete Listings of Semiconductors by Mfrs.

Type	Mfr.	Stock No.	1-24	25-99	100-999
1N2500	HOF	20F2228	6.80	6.38	5.10

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N2557	HUG	20F7667	17.50	11.03	....
1N2558	HUG	20F7668	20.50	12.92	....
1N2559	HUG	20F7669	23.50	14.78	....
1N2560	HUG	20F7670	26.50	16.70	....
1N2561	HUG	20F7671	21.25	13.39	....
1N2562	HUG	20F7672	24.25	15.28	....
1N2563	HUG	20F7673	27.25	17.17	....
1N2564	HUG	20F7674	30.25	19.06	....
1N2565	HUG	20F7573	3.80	2.39	....
1N2566	HUG	20F7574	4.20	2.65	....
1N2567	HUG	20F7575	5.10	3.21	....
1N2568	HUG	20F7576	6.40	4.03	....
1N2569	HUG	20F7577	7.90	4.98	....
1N2570	HUG	20F7578	10.00	6.30	....
1N2571	HUG	20F7579	12.20	7.69	....
1N2572	HUG	20F7580	13.90	10.02	....
1N2573	HUG	20F7581	16.90	10.65	....
1N2574	HUG	20F7582	19.90	12.54	....
1N2575	HUG	20F7583	22.90	14.43	....
1N2576	HUG	20F7584	4.60	2.90	....
1N2577	HUG	20F7585	5.20	3.28	....
1N2578	HUG	20F7586	6.70	4.22	....
1N2579	HUG	20F7587	8.50	5.36	....
1N2580	HUG	20F7588	11.00	6.93	....
1N2581	HUG	20F7589	14.00	8.82	....
1N2582	HUG	20F7590	17.80	11.21	....
1N2583	HUG	20F7591	23.00	14.49	....
1N2584	HUG	20F7592	26.00	16.38	....
1N2585	HUG	20F7593	29.00	18.27	....
1N2586	HUG	20F7594	32.00	20.16	....
1N2587	HUG	20F7675	5.90	3.71	....
1N2588	HUG	20F7676	6.75	4.25	....
1N2589	HUG	20F7677	8.50	5.36	....
1N2590	HUG	20F7678	11.00	6.93	....
1N2591	HUG	20F7679	13.75	8.66	....
1N2592	HUG	20F7680	17.25	10.87	....
1N2593	HUG	20F7681	22.50	14.18	....
1N2594	HUG	20F7682	28.50	17.96	....
1N2595	HUG	20F7683	31.50	19.85	....
1N2596	HUG	20F7684	34.50	21.74	....
1N2597	HUG	20F7685	37.50	23.65	....
1N2598	HUG	20F7686	4.00	2.52	....
1N2599	HUG	20F7687	4.60	2.90	....
1N2600	HUG	20F7688	5.70	3.59	....
1N2601	HUG	20F7689	7.20	4.42	....
1N2602	HUG	20F7690	9.29	5.80	....
1N2603	HUG	20F7691	12.00	7.56	....
1N2604	HUG	20F7692	15.30	9.64	....
1N2605	HUG	20F7693	20.00	12.60	....
1N2606	HUG	20F7694	23.00	14.49	....
1N2607	HUG	20F7695	26.00	16.38	....
1N2608	HUG	20F7696	29.00	18.27	....

Type	Mfr.	Stock No.	1-99	100-up
1N2610	GE	20F3515	1.05	.70
1N2610	MOT	21FX4451	1.05	.70
1N2611	GE	20F3516	1.19	.79
1N2611	MOT	21FX4452	1.18	.79
1N2612	GE	20F3517	1.54	1.03
1N2612	MOT	21FX4453	1.55	1.03
1N2613	GE	20F3518	1.74	1.16
1N2613	MOT	21FX4454	1.70	1.16
1N2614	GE	20F3519	1.95	1.30
1N2614	MOT	21FX4455	1.95	1.30
1N2615	GE	20F3520	2.22	1.55
1N2615	MOT	21FX4456	2.30	1.55
1N2616	MOT	20F4056	4.85	3.25
1N2617	MOT	20F4057	7.50	5.00

Type	Mfr.	Stock No.	1-24	25-99	100-up
1N2620	MOT	21FX3851	4.40	4.10	3.30
1N2620A	MOT	21FX3852	4.70	4.35	3.50
1N2620B	MOT	21FX3853	5.30	4.90	3.95
1N2621	MOT	21FX3854	4.95	4.60	3.70
1N2621A	MOT	21FX3855	5.95	5.55	4.45
1N2621B	MOT	21FX3856	7.20	6.75	5.40
1N2622	MOT	21FX3857	8.15	7.60	6.10
1N2622A	MOT	21FX3858	8.75	8.15	6.55
1N2622B	MOT	21FX3859	10.00	9.35	7.50
1N2623	MOT	21FX3860	9.40	8.80	7.05
1N2623A	MOT	21FX3861	10.75	10.05	8.05
1N2623B	MOT	21FX3862	14.40	13.50	10.80
1N2624	MOT	21FX3863	23.45	22.00	17.60
1N2624A	MOT	21FX3864	30.65	28.80	23.05
1N2624B	MOT	21FX3865	41.00	38.50	30.80
1N2725	INT	20F1388	6.01	....	....
1N2728	INT	20F1389	6.01	....	....
1N2731	INT	20F1390	7.31	....	....
1N2804	MOT	20F3779	6.65	6.25	5.00
1N2804B	HOF	20F2267	12.50	11.75	9.40
1N2804B	MOT	21FX3764	12.50	11.75	9.40

Type	Mfr.	Stock No.	1-24	25-99	100-999
1N2805	MOT	20F3280	6.65	6.25	5.00
1N2805B	MOT	21FX3765	12.50	11.75	9.40
1N2805B	HOF	20F2268	12.50	11.75	9.40
1N2806	MOT	20F3781	6.65	6.25	5.00
1N2806B	HOF	20F2269	12.50	11.75	9.40
1N2806B	MOT	21FX3766	12.50	11.75	9.40
1N2807	MOT	20F3782	6.65	6.25	5.00
1N2807B	HOF	20F2270	12.50	11.75	9.40
1N2807B	MOT	21FX3767	12.50	11.75	9.40
1N2808	MOT	20F3783	6.65	6.25	5.00
1N2808A	MOT	20F3784	8.75	8.20	6.55
1N2808B	HOF	20F2085	12.50	11.75	9.40
1N2808B	MOT	21FX4246	12.50	11.75	9.40
1N2809	MOT	20F3785	6.65	6.25	5.00
1N2809B	HOF	20F2086	12.50	11.75	9.40
1N2809B	MOT	21FX3768	12.50	11.75	9.40
1N2810	MOT	20F3786	6.65	6.25	5.00
1N2810B	HOF	20F2087	12.50	11.75	9.40
1N2810B	MOT	21FX4247	12.50	11.75	9.40
1N2811	MOT	20F3787	6.65	6.25	5.00
1N2811B	HOF	20F2088	12.50	11.75	9.40
1N2811B	MOT	21FX3769	12.50	11.75	9.40
1N2812	MOT	20F3788	6.65	6.25	5.00
1N2812B	HOF	20F2089	12.50	11.75	9.40
1N2812B	MOT	21FX3770	12.50	11.75	9.40
1N2813	MOT	20F3789	6.65	6.25	5.00
1N2813B	HOF	20F2090	12.50	11.75	9.40
1N2813B	MOT	21FX4248	12.50	11.75	9.40
1N2814	MOT	20F3790	6.65	6.25	5.00
1N2814B	HOF	20F2091	12.50	11.75	9.40
1N2814B	MOT	21FX3771	12.50	11.75	9.40
1N2815	MOT	20F3791	6.65	6.25	5.00
1N2815B	HOF	20F2092	12.50	11.75	9.40
1N2815B	MOT	21FX3772	12.50	11.75	9.40
1N2816	MOT	20F3792	6.65	6.25	5.00
1N2816B	HOF	20F2093	12.50	11.75	9.40
1N2816B	MOT	21FX3773	12.50	11.75	9.40
1N2817	MOT	20F3793	6.65	6.25	5.00
1N2817B	HOF	20F2094	12.50	11.75	9.40
1N2817B	MOT	21FX3774	12.50	11.75	9.40
1N2818	MOT	20F3794	6.65	6.25	5.00
1N2818A	MOT	20F3795	8.75	8.20	6.55
1N2818B	HOF	20F2095	12.50	11.75	9.40
1N2818B	MOT	21FX4249	12.50	11.75	9.40
1N2819	MOT	20F3796	6.65	6.25	5.00
1N2819B	HOF	20F2096	12.50	11.75	9.40
1N2819B	MOT	21FX3775	12.50	11.75	9.40
1N2820	MOT	20F3797	6.65	6.25	5.00
1N2820A	MOT	20F3798	8.75	8.20	6.55
1N2820B	HOF	20F2097	12.50	11.75	9.40
1N2820B	MOT	21FX3776	12.50	11.75	9.40
1N2821	MOT	20F3799	6.65	6.25	5.00
1N2821B	HOF	20F2098	12.50	11.75	9.40
1N2821B	MOT	21FX4250	12.50	11.75	9.40
1N2822	MOT	20F3800	6.65	6.25	5.00
1N2822B	HOF	20F2099	12.50	11.75	9.40
1N2822B	MOT	21FX3777	12.50	11.75	9.40
1N2823	MOT	20F3801	6.65	6.25	5.00
1N2823B	HOF	20F2100	12.50	11.75	9.40
1N2823B	MOT	21FX4251	12.50	11.75	9.40
1N2824	MOT	20F3802	6.65	6.25	5.00
1N2824A	MOT	20F3803	8.75	8.20	6.55
1N2824B	HOF	20F2101	12.50	11.75	9.40
1N2824B	MOT	21FX4252	12.50	11.75	9.40
1N2825	MOT	20F3804	6.65	6.25	5.00
1N2825B	HOF	20F2102	12.50	11.75	9.40
1N2825B	MOT	21FX4253	12.50	11.75	9.40
1N2826	MOT	20F3805	6.65	6.25	5.00
1N2826B	HOF	20F2103	12.50	11.75	9.40
1N2826B	MOT	21FX3778	12.50	11.75	9.40
1N2827	MOT	20F3806	6.65	6.25	5.00
1N2827B	HOF	20F2104	12.50	11.75	9.40
1N2827B	MOT	21FX3779	12.50	11.75	9.40
1N2828	HOF	20F2105	12.50	11.75	9.40
1N2828B	MOT	21FX3780	12.50	11.75	9.40
1N2829	MOT	20F3807	6.65	6.25	5.00
1N2829B	HOF	20F2106	12.50	11.75	9.40
1N2829B	MOT	21FX3781	12.50	11.75	9.40
1N2830B	MOT	21FX4254	12.50	11.75	9.40
1N2830B	HOF	20F2107	12.50	11.75	9.40
1N2831	MOT	20F3808	6.65	6.25	5.00
1N2831B	MOT	21FX3782	12.50	11.75	9.40
1N2831B	HOF	20F2108	12.50	11.75	9.40
1N2832	MOT	20F3809	6.65	6.25	5.00
1N2832B	MOT	21FX3783	12.50	11.75	9.40
1N2832B	HOF	20F2109	12.50	11.75	9.40
1N2833	MOT	20F3810	6.65	6.25	5.00
1N2833B	MOT	21FX3784	12.50	11.75	9.40
1N2833B	HOF	20F2110	12.50	11.75	9.40
1N2834B	MOT	21FX3785	12.50	11.75	9.40
1N2834B	HOF	20F2111	12.50	11.75	9.40
1N2835	MOT	20F3811	6.65	6.25	5.00
1N2835B	MOT	21FX3786	12.50	11.75	9.40
1N2835B	HOF	20F2112	12.50	11.75	9.40
1N2836	MOT	20F3812	6.65	6.25	5.00
1N2836B	MOT	21FX3787	12.50	11.75	9.40
1N2836B	HOF	20F2113	12.50	11.75	9.40
1N2837B	MOT	21FX3788	12.50	11.75	9.40
1N2837B	HOF	20F2114	12.50	11.75	9.40
1N2838B	MOT	21FX4255	12.50	11.75	9.40
1N2838B	HOF	20F2115	12.50	11.75	9.40
1N2839B	MOT	21FX3789	21.85	20.55	16.45
1N2839B	HOF	20F2116	21.85	20.55	16.45
1N2840B	MOT	21FX3790	21.85	20.55	16.45
1N2840B	HOF	20F2117	21.85	20.55	16.45
1N2841B	MOT	21FX3791	21.85	20.55	16.45
1N2841B	HOF	20F2118	21.85	20.55	16.45
1N2842B	MOT	21FX3792	21.85	20.55	16.45
1N2842B	HOF	20F2119	21.85	20.55	16.45
1N2843B	MOT	21FX3793	21.85	20.55	16.45
1N2843B	HOF	20F2120	21.85	20.55	16.45
1N2844B	MOT	21FX3794	21.85	20.55	16.45
1N2844B	HOF	20F2121	21.85	20.55	16.45
1N2845	MOT	20F3813	7.45	7.00	5.60
1N2845B	MOT	21FX3795	21.85	20.55	16.45
1N2845B	HOF	20F2122	21.85	20.55	16.45
1N2846	MOT	20F3814	7.45	7.00	5.60
1N2846B	MOT	21FX4256	21.85	20.55	16.45
1N2846B	HOF	20F2123	21.85	20.55	16.45
1N2847	GE	21FX3478	1.65	1.10	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N2848	GE	21FX3479	1.74	1.16	....
1N2849	GE	21FX3480	2.21	1.47	....
1N2850	GE	21FX3481	2.75	1.83	....
1N2851	GE	21FX3482	2.75	1.83	....
1N2852	GE	21FX3483	4.29	2.86	....
1N2858	RCA	21FX7171	.45	.30	....
1N2859	RCA	21FX7172	.51	.34	....
1N2860	RCA	21FX7173	.61	.41	....
1N2861	RCA	21FX7174	.64	.43	....
1N2862	RCA	21FX7175	.79	.53	....
1N2863	RCA	21FX7176	.86	.57	....
1N2864	RCA	21FX7177	1.16	.77	....

1N2878 thru 1N2919 are Mfrd. by TI

Type	Stock No.	1-9	10-29	30-99	100-999
1N2878	21FX5702	7.00	5.85	5.30	4.75
1N2879	21FX5703	7.00	5.85	5.30	4.75
1N2880	21FX5704	7.70	6.45	5.85	5.25
1N2881	21FX5705	7.70	6.45	5.85	5.25
1N2882	21FX5706	9.05	7.55	6.85	6.15
1N2883	21FX5707	9.05	7.55	6.85	6.15
1N2884	21FX7508	10.05	8.40	7.60	6.85
1N2885	21FX5709	10.05	8.40	7.60	6.85
1N2886	21FX5710	10.05	8.40	7.60	6.85
1N2887	21FX5711	10.05	8.40	7.60	6.85
1N2888	21FX5712	11.85	9.90	8.95	8.05
1N2889	21FX5713	11.85	9.90	8.95	8.05
1N2890	21FX5714	11.85	9.90	8.95	8.05
1N2891	21FX5715	11.85	9.90	8.95	8.05
1N2892	21FX5716	13.00	10.90	9.80	8.85
1N2893	21FX5717	13.00	10.90	9.80	8.85
1N2894	21FX5718	14.55	12.20	11.00	9.90
1N2895	21FX5719	14.55	12.20	11.00	9.90
1N2896	21FX5720	14.55	12.20	11.00	9.90
1N2897	21FX5721	14.55	12.20	11.00	9.90
1N2898	21FX5722	16.35	13.70	12.35	11.15
1N2899	21FX5723	16.35	13.70	12.35	11.15
1N2900	21FX5724	16.35	13.70	12.35	11.15
1N2901	21FX5725	16.35	13.70	12.35	11.15
1N2902	21FX5726	18.75	15.70	14.15	12.75
1N2903	21FX5727	18.75	15.70	14.15	12.75
1N2904	21FX5728	18.75	15.70	14.15	12.75
1N2905	21FX5729	18.75	15.70	14.15	12.75
1N2906	21FX5730	18.75	15.70	14.15	12.75
1N2907	21FX5731	18.75	15.70	14.15	12.75
1N2908	21FX5732	20.95	17.55	15.85	14.25
1N2909	21FX5733	20.95	17.55	15.85	14.25
1N2910	21FX5734	20.95	17.55	15.85	14.25
1N2911	21FX5735	20.95	17.55	15.85	14.25
1N2912	21FX5736	23.30	19.50	17.60	15.85
1N2913	21FX5737	23.30	19.50	17.60	15.85
1N2914	21FX5738	23.30	19.50	17.60	15.85
1N2915	21FX5739	23.30	19.50	17.60	15.85
1N2916	21FX5740	23.30	19.50	17.60	15.85
1N2917	21FX5741	23.30	19.50	17.60	15.85
1N2918	21FX5742	25.00	20.90	18.90	17.00
1N2919	21FX5743	25.00	20.90	18.90	17.00

Type	Mfr.	Stock No.	1-9	10-29	30-99	100-999
1N2920	TI	21FX5744	27.75	23.20	20.95	18.85
1N2921	TI	21FX5745	27.75	23.20	20.95	18.85
1N2922	TI	21FX5746	29.45	24.65	22.25	20.05
1N2923	TI	21FX5747	29.45	24.65	22.25	20.05
1N2924	TI	21FX5748	31.85	26.65	24.05	21.70
1N2925	TI	21FX5749	31.85	26.65	24.05	21.70

SEMICONDUCTOR DIRECTORY

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N2928	HOF	21FX2330	12.50	9.40	
1N2928A	HOF	21FX2337	17.50	13.10	
1N2929	HOF	21FX2331	11.10	8.30	
1N2929A	HOF	21FX2338	17.50	13.10	
1N2930	HOF	21FX2332	11.10	8.30	
1N2930A	HOF	21FX2339	17.50	13.10	
1N2931	HOF	21FX2333	11.10	8.30	
1N2931A	HOF	21FX2340	17.50	13.10	
1N2932	HOF	21FX2334	11.10	8.30	
1N2932A	HOF	21FX2341	21.00	15.70	
1N2933	HOF	21FX2335	11.10	8.30	
1N2933A	HOF	21FX2342	23.80	17.80	
1N2934	HOF	21FX2336	19.00	14.25	
1N2934A	HOF	21FX2343	26.60	19.90	
1N2939	GE	21F3125	6.70	4.45	
1N2939A	GE	20F3006	13.35	8.90	
1N2940	GE	21F3126	4.95	3.30	
1N2940A	GE	20F3005	10.05	6.70	
1N2941	GE	21F3127	4.15	2.75	
1N2941A	GE	20F3004	8.25	5.50	
1N2969	GE	21FX3557	4.55	3.05	
1N2969A	GE	20F3000	9.15	6.10	

Type	Mfr.	Stock No.	1-24	25-99	100-999
1N2970	TI	20F5492	5.85	5.50	4.40
1N2970	MOT	20F3756	5.85	5.50	4.40
1N2970B	HOF	20F2049	9.30	8.75	7.00
1N2970B	MOT	21FX3729	9.30	8.75	7.00
1N2971	TI	20F5473	5.85	5.50	4.40
1N2971	MOT	20F3757	5.85	5.50	4.40
1N2971B	HOF	20F2050	9.30	8.75	7.00
1N2971B	MOT	21FX3730	9.30	8.75	7.00
1N2972	TI	20F5494	5.85	5.50	4.40
1N2972B	HOF	20F2051	9.30	8.75	7.00
1N2972B	MOT	21FX3731	9.30	8.75	7.00
1N2973	TI	20F5495	5.85	5.50	4.40
1N2973B	HOF	20F2052	9.30	8.75	7.00
1N2973B	MOT	21FX3732	9.30	8.75	7.00
1N2974	TI	20F5496	5.85	5.50	4.40
1N2974B	HOF	20F2053	9.30	8.75	7.00
1N2974B	MOT	21FX4177	9.30	8.75	7.00
1N2975	TI	20F5497	5.85	5.50	4.40
1N2975B	HOF	20F2054	9.30	8.75	7.00
1N2975B	MOT	21FX3733	9.30	8.75	7.00
1N2976	TI	20F5498	5.85	5.50	4.40
1N2976B	HOF	20F2055	9.30	8.75	7.00
1N2976B	MOT	21FX4178	9.30	8.75	7.00
1N2977	TI	20F5499	5.85	5.50	4.40
1N2977B	HOF	20F2056	9.30	8.75	7.00
1N2977B	MOT	21FX3734	9.30	8.75	7.00
1N2978B	MOT	21FX3735	9.30	8.75	7.00
1N2979	TI	20F5500	5.85	5.50	7.00
1N2979	MOT	20F3758	5.85	5.50	4.40
1N2979B	HOF	20F2057	9.30	5.50	7.00
1N2979B	MOT	21FX4179	9.30	8.75	4.40
1N2980	TI	20F5501	5.85	8.75	4.40
1N2980A	MOT	20F3759	7.20	6.75	7.00
1N2980B	HOF	20F2058	9.30	8.75	7.00
1N2980B	MOT	21FX3736	9.30	8.75	7.00
1N2981B	MOT	21FX3737	9.30	8.75	7.00
1N2982	TI	20F5502	5.85	5.50	4.40
1N2982A	MOT	20F3760	7.20	6.75	5.40
1N2982B	HOF	20F2059	9.30	8.75	7.00
1N2982B	MOT	21FX3738	9.30	8.75	7.00
1N2983B	MOT	21FX3739	9.30	8.75	7.00
1N2984	TI	20F5503	5.85	5.50	4.40
1N2984	MOT	20F3761	5.85	5.50	4.40
1N2984B	HOF	20F2060	9.30	8.75	7.00
1N2984B	MOT	21FX4180	9.30	8.75	7.00
1N2985	TI	20F5504	5.85	5.50	4.40
1N2985	MOT	20F3762	5.85	5.50	4.40

Type	Mfr.	Stock No.	1-24	25-99	100-up
1N2985B	HOF	20F2061	9.30	8.75	7.00
1N2985B	MOT	21FX4389	9.30	8.75	7.00
1N2986	TI	20F5505	5.85	5.50	4.40
1N2986	MOT	20F3763	5.85	5.50	4.40
1N2986B	HOF	20F2062	9.30	8.75	7.00
1N2986B	MOT	21FX3741	9.30	8.75	7.00
1N2987B	MOT	21FX4181	9.30	8.75	7.00
1N2988	TI	20F5506	5.85	5.50	4.40
1N2988	MOT	20F3764	5.85	5.50	4.40
1N2988B	HOF	20F2063	9.30	8.75	7.00
1N2988B	MOT	21FX3742	9.30	8.75	7.00
1N2989	TI	20F5507	5.85	5.50	4.40
1N2989	MOT	20F3765	5.85	5.50	5.40
1N2989B	HOF	20F2064	9.30	8.75	7.00
1N2989B	MOT	21XF4182	9.30	8.75	7.00
1N2990	TI	20F5508	5.85	5.50	4.40
1N2990	MOT	20F3766	5.85	5.50	4.40
1N2990B	HOF	20F2065	9.30	8.75	7.00
1N2990B	MOT	21FX3743	9.30	8.75	7.00
1N2991	TI	20F5509	5.85	5.50	4.40
1N2991	MOT	20F3767	5.85	5.50	4.40
1N2991B	HOF	20F2066	9.30	8.75	7.00

Type	Mfr.	Stock No.	1-24	25-99	100-up
1N2991B	MOT	21FX3744	9.30	8.75	7.00
1N2992	TI	20F5510	5.85	5.50	4.40
1N2992	MOT	20F3768	5.85	5.50	4.40
1N2992B	HOF	20F2067	9.30	8.75	7.00
1N2992B	MOT	21FX4183	9.30	8.75	7.00
1N2993	TI	20F5511	5.85	5.50	4.40
1N2993B	HOF	20F2068	9.30	8.75	7.00
1N2993B	MOT	21FX3745	9.30	8.75	7.00
1N2994B	MOT	21FX3746	9.30	8.75	7.00
1N2995	TI	20F5512	5.85	5.50	4.40
1N2995	MOT	20F3769	5.85	5.50	4.40
1N2995B	HOF	20F2069	9.30	8.75	7.00
1N2995B	MOT	21FX3747	9.30	8.75	7.00
1N2996B	MOT	21FX4184	9.30	8.75	7.00
1N2997	TI	20F5513	5.85	5.50	4.40
1N2997	MOT	20F3770	5.85	5.50	4.40
1N2997B	HOF	20F2070	9.30	8.75	7.00
1N2997B	MOT	21FX3748	9.30	8.75	7.00
1N2998B	MOT	21FX3749	9.30	8.75	7.00
1N2999	TI	20F5514	5.85	5.50	4.40
1N2999	MOT	20F3771	9.30	8.75	7.00
1N2999B	HOF	20F2071	9.30	8.75	7.00
1N2999B	MOT	21FX4185	9.30	8.75	7.00
1N3000	TI	20F5515	5.85	5.50	4.40
1N3000	MOT	20F3772	5.85	5.50	4.40
1N3000B	HOF	20F2072	9.30	8.75	7.00
1N3000B	MOT	21FX3750	9.30	8.75	7.00
1N3001	TI	20F5516	5.85	5.50	4.40
1N3001A	MOT	20F3773	7.20	6.05	5.40
1N3001B	MOT	21FX3751	9.30	8.75	7.00
1N3001B	HOF	20F2073	9.30	8.75	7.00
1N3002	TI	20F5517	5.85	5.50	4.40
1N3002A	MOT	20F3774	7.20	6.05	5.40
1N3002B	HOF	20F2074	9.30	8.75	7.00
1N3002B	MOT	21FX3752	9.30	8.75	7.00
1N3003	TI	20F5518	5.85	5.50	4.40
1N3003B	HOF	20F2075	9.30	8.75	7.00
1N3003B	MOT	21FX3753	9.30	8.75	7.00
1N3004	TI	20F5519	5.85	5.50	4.40
1N3004B	HOF	20F2076	9.30	8.75	7.00
1N3004B	MOT	21FX3754	9.30	8.75	7.00
1N3005	TI	20F5520	5.85	5.50	4.40
1N3005	MOT	20F3775	5.85	5.50	4.40
1N3005B	HOF	20F2077	9.30	8.75	7.00
1N3005B	MOT	21FX4186	9.30	8.75	7.00
1N3006B	MOT	21FX3755	9.30	8.75	7.00
1N3007	TI	20F5521	6.45	6.05	4.85
1N3007B	HOF	20F2078	9.30	8.75	7.00
1N3007B	MOT	21FX3756	9.30	8.75	7.00
1N3008	TI	20F5522	6.45	6.05	4.85
1N3008B	HOF	20F2079	9.30	8.75	7.00
1N3008B	MOT	21FX3757	9.30	8.75	7.00
1N3009	TI	20F5523	6.45	6.05	4.85
1N3009	MOT	20F3776	6.45	6.05	4.85
1N3009B	HOF	20F2080	9.30	8.75	7.00
1N3009B	MOT	21FX3758	9.30	8.75	7.00
1N3010B	MOT	21FX3759	9.30	8.75	7.00
1N3011	TI	20F5524	6.45	6.05	4.85
1N3011	MOT	20F3777	6.45	6.05	4.85
1N3011B	HOF	20F2081	9.30	8.75	7.00
1N3011B	MOT	21FX4187	9.30	8.75	7.00
1N3012	TI	20F5525	6.45	6.05	4.85
1N3012B	HOF	20F2082	14.80	14.00	11.10
1N3012B	MOT	21FX3760	14.95	14.10	11.25
1N3013B	MOT	21FX3761	14.95	14.10	11.25
1N3014	TI	20F5527	6.45	6.05	4.85
1N3014B	HOF	20F2083	14.80	14.00	11.10
1N3014B	MOT	21FX3762	14.95	14.10	12.25
1N3015	TI	20F5527	6.45	6.05	4.85
1N3015	MOT	20F3778	6.45	6.05	4.85
1N3015B	HOF	20F2084	14.80	14.00	11.25
1N3015B	MOT	21FX3763	14.95	14.10	11.25
1N3016	MOT	20F3716	3.10	2.95	2.35
1N3016B	HOF	20F2005	5.05	4.75	3.80
1N3016B	MOT	21FX4493	5.05	4.75	3.80

Type	Mfg.	Stock No.	1-24	25-99	100-up
1N3017	MOT	20F3717	3.10	2.95	2.35
1N3017B	HOF	20F2006	5.05	4.75	3.79
1N3017B	MOT	21FX4494	5.05	4.75	3.80
1N3018	MOT	20F3718	3.10	2.95	2.35
1N3018B	HOF	20F2007	5.05	4.75	3.79
1N3018B	MOT	21FX4495	5.05	4.75	3.80
1N3019	MOT	20F3719	3.10	2.95	2.35
1N3019B	HOF	20F2008	5.05	4.75	3.79
1N3019B	MOT	21FX4496	5.05	4.75	3.80
1N3020A	MOT	20F3720	3.50	3.30	2.65
1N3020B	HOF	20F2009	5.05	4.75	3.79
1N3020B	MOT	21FX4497	5.05	4.75	3.80
1N3021B	HOF	20F2010	5.05	4.75	3.79
1N3021B	MOT	21FX4498	5.05	4.75	3.80
1N3022	MOT	20F3721	3.10	2.95	2.35
1N3022B	HOF	20F2011	5.05	4.75	3.79
1N3022B	MOT	21FX4499	5.05	4.75	3.80
1N3023	MOT	20F3722	3.10	2.95	2.35

Type	Mfr.	Stock No.	1-24	25-99	100-999
1N3023B	HOF	20F2012	5.05	4.75	3.79
1N3023B	MOT	21FX3700	5.05	4.75	3.80
1N3024A	MOT	20F3723	3.50	3.30	2.65
1N3024B	HOF	20F2013	4.75	3.79	3.50
1N3024B	MOT	21FX3701	5.05	4.75	3.80
1N3025	MOT	20F3724	3.10	2.95	2.35
1N3025B	MOT	20F2014	5.05	4.75	3.79
1N3025B	MOT	21FX3702	5.05	4.75	3.80
1N3026	MOT	20F3725	3.10	2.95	2.35
1N3026B	MOT	21FX3703	5.05	4.75	3.80
1N3027	MOT	20F3726	3.10	2.95	2.35
1N3027B	MOT	21FX3704	5.05	4.75	3.80
1N3028A	MOT	20F3727	3.50	3.30	2.65
1N3028B	MOT	21FX3705	5.05	4.75	3.80
1N3029	MOT	20F3728	3.10	2.95	2.35
1N3029B	MOT	21FX3706	5.05	4.75	3.80
1N3030B	HOF	20F2019	5.05	4.75	3.79
1N3030B	MOT	21FX3707	5.05	4.75	3.80
1N3031B	HOF	20F2020	6.40	6.00	4.80
1N3031B	MOT	21FX3708	5.05	4.75	3.80
1N3032B	HOF	20F2021	6.40	6.00	4.80
1N3032B	MOT	21FX3709	5.05	4.75	3.80
1N3033B	HOF	20F2022	6.40	6.00	4.80
1N3033B	MOT	21FX3710	5.05	4.75	3.80
1N3034B	HOF	20F2023	6.40	6.00	4.80
1N3034B	MOT	21FX3711	5.05	4.75	3.80
1N3035B	HOF	20F2024	6.40	6.00	4.80
1N3035B	MOT	21FX3712	5.05	4.75	3.80
1N3036B	HOF	20F2025	6.40	6.00	4.80
1N3036B	MOT	21FX3713	6.40	6.00	4.80
1N3037A	MOT	20F3729	4.90	4.60	3.70
1N3037B	HOF	20F2026	6.40	6.00	4.80
1N3037B	MOT	21FX3714	6.40	6.00	4.80
1N3038B	HOF	20F2027	6.40	6.00	4.80
1N3038B	MOT	21FX3715	6.40	6.00	4.80
1N3039B	HOF	20F2028	6.40	6.00	4.80
1N3039B	MOT	21FX3716	6.40	6.00	4.80
1N3040B	HOF	20F2029	6.40	6.00	4.80
1N3040B	MOT	21FX3717	6.40	6.00	4.80
1N3041B	HOF	20F2030	6.40	6.00	4.80
1N3041B	MOT	21FX3718	6.40	6.00	4.80
1N3042B	HOF	20F2031	6.40	6.00	4.80
1N3042B	MOT	21FX3719	6.40	6.00	4.80
1N3043B	HOF	20F2032	6.40	6.00	4.80
1N3043B	MOT	21FX3720	6.40	6.00	4.80
1N3044B	HOF	20F2033	6.40	6.00	4.80
1N3044B	MOT	21FX3721	6.40	6.00	4.80
1N3045B	HOF	20F2034	8.40	7.88	6.30
1N3045B	MOT	21FX3722	6.40	6.00	4.80
1N3046B	HOF	20F2035	8.40	7.88	6.30
1N3046B	MOT	21FX3723	6.40	6.00	4.80
1N3047B	HOF	20F2036	8.40	7.85	6.30
1N3047B	MOT	21FX3724	6.40	6.00	4.80
1N3048B	HOF	20F2037	8.40	7.88	6.30
1N3048B	MOT	21FX3725	6.40	6.00	4.80
1N3049B	HOF	20F2038	8.40	7.85	6.30
1N3049B	MOT	21FX3726	6.40	6.00	4.80
1N3050B	HOF	20F2039	8.40	7.88	6.30
1N3050B	MOT	21FX3727	6.40	6.00	4.80
1N3051B	HOF	20F2040	8.40	7.88	6.30
1N3051B	MOT	21FX3728	6.40	6.00	4.80

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N3062	GE	20F3513	5.75	4.00	....
1N3063	GE	20F3249	5.50	3.85	....
1N3064	GE	20F3344	6.50	5.00	....
1N3064	TI	20F5371	3.55	2.80	....
1N3064	HUG	20F7726	6.50	4.88	....
1N3065	GE	20F3345	6.50	5.00	....
1N3066	GE	20F3346	5.50	3.85	....
1N3067	GE	20F3347	1.20	.90	....
1N3067	HUG	20F7727	1.20	.90	....
1N3068	HUG	20F7728	1.10	.83	....
1N3068	GE	20F3348	1.12	.82	....
1N3085	INT	20F8216	9.55	9.55	....
1N3086	INT	20F8217	14.20	14.20	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N3087	INT	20F8218	20.80	20.80	....
1N3088	INT	20F8219	29.80	29.80	....
1N3089	INT	20F8220	37.80	37.80	....
1N3090	INT	20F8221	45.75	45.75	....
1N3121	AMP	21FX2655	.60	.60	.40
1N3122	AMP	21FX2656	.53	.53	.35
1N3124	GE	20F3349	3.00	2.20	....
1N3125	HUG	20F7774	.80	.60	....
1N3125	SYL	21FX4904	.80	.63	.50

Type	Mfr.	Stock No.	1-24	25-99	100-up
1N3128	RCA	21FX7178	14.26	14.26	9.50
1N3129	RCA	21FX7179	13.79	13.79	9.20
1N3130	RCA	21FX7180	13.37	13.37	8.91
1N3138	RCA	21FX7181	36.30	36.30	24.20

Type	Mfr.	Stock No.	1-24	25-99	100-up
1N3149	GE	20F3001	4.15	4.15	2.75
1N3149A	GE	20F3002	8.25	8.25	5.50
1N3150	GE	20F3003	4.15	4.15	2.75
1N3154	MOT	20F4199	7.80	7.30	5.85
1N3154	INT	20F8338	7.20	7.20	5.80
1N3154A	INT	20F8339	8.20	8.20	6.55
1N3154A	MOT	20F4200	8.75	8.15	6.55
1N3155	MOT	20F4201	12.15	11.35	9.10
1N3155	INT	20F8340	11.30	11.30	9.05
1N3155A	INT	20F8341	12.30	12.30	9.85
1N3155A	MOT	20F4202	13.10	12.30	9.85
1N3156	MOT	20F4203	18.00	16.85	13.50
1N3156	INT	20F8342	16.80	16.80	13.40
1N3156A	INT	20F8343	18.20	18.20	14.55
1N3156A	MOT	20F4204	19.40	18.15	14.55
1N3157	MOT	20F4205	27.00	25.35	20.30
1N3157	INT	20F8344	25.30	25.30	20.25
1N3161/439A	WES	21FX9962	14.80	12.40	....
1N3162/439B	WES	21FX9963	17.75	14.90	....
1N3163/439C	WES	21FX9964	20.95	17.80	....
1N3164/439D	WES	21FX9965	24.75	20.80	....
1N3165/439E	WES	21FX9966	28.20	23.70	....
1N3166/439F	WES	21FX9967	32.20	27.10	....
1N3167/439G	WES	21FX9968	32.20	27.10	....
1N3168/439H	WES	21FX9914	47.20	39.65	....
1N3169/439K	WES	21FX9915	57.20	48.00	....
1N3170/439M	WES	21FX9916	70.00	58.70	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N3189	MOT	20F4397	3.45	3.45	2.30
1N3190	MOT	20F4398	6.15	6.15	4.10
1N3191	MOT	30F4399	9.30	9.30	6.20
1N3193	RCA	21FX7203	.59	.40	....
1N3194	RCA	21FX7204	.74	.50	....
1N3195	RCA	21FX7205	1.07	.72	....
1N3196	RCA	21FX7206	1.49	.99	....
1N3208	MOT	21FX3885	1.55	1.04	....
1N3208R	MOT	20F4010	1.55	1.04	....
1N3209	MOT	21FX3886	1.60	1.09	....
1N3209R	MOT	20F4011	1.60	1.09	....
1N3210	MOT	21FX3887	2.15	1.46	....
1N3210R	MOT	20F4012	2.15	1.46	....
1N3211	MOT	21FX3888	2.70	1.80	....
1N3211R	MOT	20F4013	2.70	1.80	....
1N3212	MOT	21FX3889	3.30	2.20	....
1N3212R	MOT	20F4014	3.30	2.20	....
1N3218	GE	21FX3614	15.00	10.00	....
1N3218A	GE	21FX3615	18.00	12.00	....
1N3219	GE	21FX3616	12.00	8.00	....
1N3219A	GE	21FX3617	15.00	10.00	....
1N3253	RCA	21FX7245	.63	.42	....
1N3254	RCA	21FX7246	.78	.52	....
1N3255	RCA	21FX7247	1.11	.74	....
1N3256	RCA	21FX7248	1.52	1.01	....
1N3282	HUG	20F7595	5.00	3.35	....
1N3282	MOT	20F4015	5.00	3.35	....
1N3283	HUG	20F7596	6.60	4.40	....
1N3283	MOT	20F4016	6.60	4.40	....
1N3284	HUG	20F7597	8.85	5.70	....
1N3284	MOT	20F4017	8.55	5.70	....
1N3285	HUG	20F7598	10.05	6.70	....
1N3285	MOT	20F4018	10.05	6.70	....
1N3286	HUG	20F7599	12.00	8.00	....
1N3286	MOT	20F4019	12.00	8.00	....
1N3289	GE	20F3093	12.00	9.50	....
1N3290	GE	20F3095	15.60	12.50	....
1N3291	GE	20F3097	18.70	15.00	....
1N3292	GE	20F3099	24.00	19.20	....
1N3293	GE	20F3101	27.80	22.20	....
1N3294	GE	20F3103	37.00	29.60	....
1N3295	GE	20F3105	46.00	36.80	....
1N3483	AMP	21FX2657	1.65	1.65	1.10
1N3484	AMP	21FX2658	.60	.60	.40
1N3544	GE	20F3207	2.25	1.50	....
1N3545	GE	20F3208	2.78	1.85	....
1N3546	GE	20F3209	3.49	2.45	....
1N3547	GE	20F3210	4.50	3.00	....
1N3548	GE	20F3211	5.55	3.70	....
1N3549	GE	20F3462	6.45	6.45	4.30
1N3563	RCA	21FX7370	2.15	1.43	....
1N3569	GE	20F3526	1.49	.99	....
1N3570	GE	20F3527	1.80	1.20	....
1N3571	GE	20F3528	2.32	1.55	....
1N3572	GE	20F3529	2.85	1.90	....
1N3573	GE	20F3530	4.27	2.85	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N3574	GE	20F3531	6.15	4.10	....
1N3575	TI	20F5358	2.30	1.87	....
1N3576	TI	20F5359	2.73	2.22	....
1N3577	TI	20F5360	3.00	2.31	....
1N3578	TI	20F5361	1.94	1.58	....
1N3579	TI	20F5362	3.60	2.94	....

Type	Mfr.	Stock No.	1-24	25-99	100-up
1N3580	MOT	20F4375	5.30	4.90	4.25
1N3580A	MOT	20F4376	5.65	5.20	4.50
1N3580B	MOT	20F4377	6.50	6.00	5.20
1N3581	MOT	20F4378	6.05	5.55	4.85
1N3581A	MOT	20F4379	7.20	6.60	5.75
1N3581B	MOT	20F4380	8.45	7.75	6.75
1N3582	MOT	20F4381	9.75	8.95	7.80
1N3582A	MOT	20F4382	10.65	9.80	8.50
1N3582B	MOT	20F4383	11.90	10.90	9.50

Type	Mfr.	Stock No.	1-99	100-999	1000-up
1N3593	TI	20F5372	3.00	2.22	....
1N3604	GE	20F3508	2.50	1.67	....
1N3605	GE	20F3286	2.50	1.67	....
1N3606	GE	20F3287	2.95	1.95	....
1N3607	GE	20F3288	11.50	7.75	....
1N3608	GE	20F3289	10.90	7.25	....
1N3609	GE	20F3290	13.50	8.90	....
1N3639	GE	20F3521	.77	.51	....
1N3640	GE	20F3522	.96	.64	....
1N3641	GE	20F3523	1.49	.99	....
1N3642	GE	20F3524	1.82	1.21	....
1N3680B	MOT	20F4384	3.60	2.30	....
1N3681B	MOT	20F4385	3.60	2.30	....
1N3682B	MOT	20F4386	3.60	2.30	....
1N3683B	MOT	20F4387	3.60	2.30	....
1N3684B	MOT	20F4388	3.60	2.30	....
1N3685B	MOT	20F4410	3.06	2.30	....
1N3686B	MOT	20F4411	3.06	2.30	....
1N3687B	MOT	20F4412	3.06	2.30	....
1N3688B	MOT	20F4413	3.06	2.30	....
1N3689B	MOT	20F4414	3.06	2.30	....
1N3690B	MOT	20F4415	3.39	2.55	....
1N3691B	MOT	20F4416	3.39	2.55	....
1N3692B	MOT	20F4417	3.39	2.55	....
1N3693B	MOT	20F4418	3.39	2.55	....
1N3694B	MOT	20F4419	3.39	2.55	....
1N3695B	MOT	20F4420	3.39	2.55	....
1N3696B	MOT	20F4421	3.39	2.55	....
1N3712/TD-1	GE	20F3136	3.75	2.50	....
1N3713/TD-1A	GE	20F3291	5.60	3.75	....
1N3714/TD-2	GE	20F3137	3.30	2.20	....
1N3715/TD-2A	GE	20F3292	5.15	3.45	....
1N3716/TD-3	GE	20F3138	2.55	1.70	....
1N3717/TD-3A	GE	20F3293	4.45	2.95	....
1N3718/TD-4	GE	20F3139	2.55	1.70	....
1N3719/TD-4A	GE	20F3294	4.45	2.95	....
1N3720/TD-5	GE	20F3140	2.55	1.70	....
1N3721/TD-5A	GE	20F3295	4.45	2.95	....
1N3754	RCA	21FX7371	.36	.24	....
1N3755	RCA	21FX7372	.41	.28	....
1N3756	RCA	21FX7373	.46	.31	....
1N3775	TI	20F5476	6.39	4.26	....

Type	Mfr.	Stock No.	1-24	25-99	100-up
1N3785	MOT	20F3730	4.00	3.75	3.00
1N3785B	MOT	20F4215	7.40	6.95	5.55
1N3786B	MOT	20F4216	7.40	6.95	5.55
1N3787B	MOT	20F4217	7.40	6.95	5.55
1N3788B	MOT	20F4218	7.40	6.95	5.55
1N3789	MOT	20F3731	4.00	3.75	3.00
1N3789B	MOT	20F4219	7.40	6.95	5.55
1N3790B	MOT	20F4220	7.40	6.95	5.55
1N3791	MOT	20F3732	4.00	3.75	3.00
1N3791B	MOT	20F4221	7.40	6.95	5.55
1N3792B	MOT	20F4222	7.40	6.95	5.55
1N3793	MOT	20F3733	4.00	3.75	3.00
1N3793B	MOT	20F4224	7.40	6.95	5.55
1N3794B	MOT	20F4225	7.40	6.95	5.55
1N3795	MOT	20F3734	4.00	3.75	3.00
1N3795B	MOT	20F4227	7.40	6.95	5.55
1N3796	MOT	20F3735	4.00	3.75	3.00
1N3796B	MOT	20F4229	7.40	6.95	5.55
1N3797B	MOT	20F4230	7.40	6.95	5.55
1N3798	MOT	20F3736	4.00	3.75	3.00
1N3798B	MOT	20F4232	7.40	6.95	5.55

Type	Mfr.	Stock No.	1-24	25-99	100-up
1N3799	MOT	20F3737	4.00	3.75	3.00
1N3799B	MOT	20F4233	7.40	6.95	5.55
1N3800	MOT	20F3738	4.00	3.75	3.00
1N3800B	MOT	20F4234	7.40	6.95	5.55
1N3801B	MOT	20F4235	7.40	6.95	5.55
1N3802	MOT	20F3739	4.00	3.75	3.00
1N3802B	MOT	20F4236	7.40	6.95	5.55
1N3803B	MOT	20F4237	7.40	6.95	5.55
1N3804	MOT	20F3740	4.00	3.75	3.00
1N3804B	MOT	20F4238	7.40	6.95	5.55
1N3805	MOT	20F3741	4.00	3.75	3.00
1N3805B	MOT	20F4240	7.40	6.95	5.55
1N3806	MOT	20F3742	4.00	3.75	3.00
1N3806B	MOT	20F4372	7.40	6.95	5.55
1N3807	MOT	20F3743	4.00	3.75	3.00
1N3808	MOT	20F3744	4.00	3.75	3.00
1N3808B	MOT	20F4244	7.40	6.95	5.55
1N3809	MOT	20F3745	4.00	3.75	3.00
1N3809B	MOT	20F4231	7.40	6.95	5.55
1N3810	MOT	20F3746	4.00	3.75	3.00
1N3810B	MOT	20F4245	7.40	6.95	5.55
1N3811	MOT	20F3747	4.00	3.75	3.00
1N3811B	MOT	20F4246	7.40	6.95	5.55
1N3812	MOT	20F3748	4.00	3.75	3.00
1N3812B	MOT	20F4247	7.40	6.95	5.55
1N3813B	MOT	20F4248	7.40	6.95	5.55
1N3814	MOT	20F3749	5.05	4.75	3.80
1N3814B	MOT	20F4250	8.90	8.35	6.70
1N3815	MOT	20F3750	5.05	4.75	3.80
1N3815B	MOT	20F4251	8.90	8.35	6.70
1N3816	MOT	20F3751	5.05	4.75	3.80
1N3816B	MOT	20F4252	8.90	8.35	6.70
1N3817	MOT	20F3752	5.05	4.75	3.80
1N3817B	MOT	20F4254	8.90	8.35	6.70
1N3818	MOT	20F3753	5.05	4.75	3.80
1N3818B	MOT	20F4373	8.90	8.35	6.70
1N3819	MOT	20F3754	5.05	4.75	3.80
1N3819B	MOT	20F4374	8.90	8.35	6.70
1N3820	MOT	20F3755	5.05	4.75	3.80
1N3820B	MOT	20F4256	8.90	8.35	6.70
1N3821A	MOT	20F4422	2.86	2.86	2.69
1N3822A	MOT	20F4423	2.86	2.86	2.69
1N3823A	MOT	20F4424	2.86	2.86	2.69
1N3824A	MOT	20F4425	2.86	2.86	2.69
1N3825A	MOT	20F4426	2.86	2.86	2.69
1N3826A	MOT	20F4427	2.86	2.86	2.69
1N3827A	MOT	20F4428	2.86	2.86	2.69
1N3828A	MOT	20F4429	2.86	2.86	2.69
1N3829A	MOT	20F4430	2.86	2.86	2.69
1N3830A	MOT	20F4431	2.86	2.86	2.69

Type	Mfr.	Stock No.	1-99	100-999	1000-up
2N35	SYL	21F010	1.17	.78	....
2N43A	GE	21F3025	4.15	2.75	....
2N44A	GE	20F3421	4.95	3.50	....
2N78	GE	21F339	2.50	1.65	....
2N78A	GE	21FX3559	2.70	1.80	....
2N94	SYL	21F015	1.34	.89	....
2N94A	SYL	21F016	1.50	1.00	....
2N102/13	SYL	21F018	4.50	3.00	....
2N105	RCA	21F7001	1.65	1.05	....
2N109	RCA	21F7039	.91	.61	....
2N117	TI	21F5004	8.15	5.45	....
2N118	TI	21F5005	8.15	5.45	....
2N118A	TI	21F5006	8.15	5.45	....
2N119	TI	21F5007	11.05	7.35	....
2N120	TI	21F5174	12.60	8.40	....
2N128	SPR	21F8222	6.30	4.60	....
2N139	RCA	21F7046	1.16	.70	....
2N140	RCA	21F7031	1.24	.83	....
2N144/13	SYL	21FX4768	8.14	5.43	....
2N155	RAY	21FX9628	2.83	2.25	....
2N156	RAY	20F9534	3.75	2.50	....
2N158	RAY	20F9535	5.25	3.50	....
2N158A	RAY	21FX9678	6.75	4.50	....
2N167A	GE	21FX3560	5.10	3.40	....
2N169	GE	21F348	1.57	1.05	....
2N169A	GE	21F349	2.40	1.60	....
2N173	MOT	21FX3876	6.35	4.00	....
2N173	RCA	21FX7187	4.21	2.80	....
2N174	MOT	21FX3875	4.50	3.00	....
2N174	RCA	21FX7188	4.50	3.00	....
2N174A	MOT	20F4459	7.65	5.11	....
2N175	RCA	21F7036	1.63	1.09	....
2N176	BEN	21FX6222	1.55	1.05	....
2N176	MOT	21FX4000	1.65	1.10	....
2N176	RCA	21F7040	1.88	1.25	....
2N178	MOT	20F4054	1.55	1.05	....
2N187A	GE	21F3009	1.50	1.00	....
2N188A	GE	21F3010	1.64	1.09	....
2N189	GE	21F3011	.70	.47	....
2N190	GE	21F3012	.75	.50	....
2N191	GE	21F3013	.83	.55	....
2N192	GE	21F3014	1.57	1.05	....
2N194A	SYL	21FX4700	1.42	.94	....
2N211	SYL	21FX4865	1.80	1.38	....

SEMICONDUCTOR DIRECTORY

Type	Mfr.	Stock No.	1-99	100-999	1000-up
2N212	SYL	21F4505	1.50	1.00	....
2N213	SYL	21FX4770	1.25	.83	....
2N213A	SYL	21F380	1.59	1.05	....
2N214	SYL	21F4506	1.42	.94	....
2N215	RCA	21F7003	1.73	1.16	....
2N217	RCA	21F7004	.86	.57	....
2N218	RCA	21F7005	1.16	.77	....
2N219	RCA	21F7006	1.24	.83	....
2N220	RCA	21F7007	1.55	1.03	....
2N228	SYL	21F4509	1.59	1.05	....
2N229	SYL	21F381	.50	.33	....
2N233	SYL	21F4510	.50	.33	....
2N234A	BEN	21FX6150	1.10	.75	....
2N235A	BEN	21FX6151	1.55	1.05	....
2N235B	BEN	21FX6152	1.70	1.15	....
2N236A	BEN	21FX6153	2.40	1.60	....
2N236B	BEN	21FX6154	2.60	1.75	....
2N240	SPR	21F8223	5.60	4.10	....
2N241A	GE	21F3016	.92	.61	....
2N242	BEN	21FX6223	1.65	1.10	....
2N243	TI	21F5011	13.75	9.15	....
2N244	TI	21F5012	20.45	13.60	....
2N250	TI	21F5059	1.90	1.25	....
2N251	TI	21F5060	2.25	1.50	....
2N255A	BEN	21FX6253	.90	.60	....
2N255	BEN	21FX6155	1.10	.75	....
2N256	BEN	21FX6156	1.35	.90	....
2N256A	BEN	21FX6254	1.10	.75	....
2N269	RCA	21F7009	1.98	1.32	....
2N270	RCA	21F7010	1.02	.68	....
2N274	RCA	21F7011	1.49	.99	....
2N277	MOT	21FX3880	3.45	2.30	....
2N277	RCA	21FX7189	3.38	2.25	....
2N278	MOT	21FX3878	3.48	3.25	....
2N278	RCA	21FX7190	4.87	3.25	....
2N279	AMP	21FX2600	.70	.47	....
2N280	AMP	21FX2601	.75	.50	....
2N284	AMP	21FX2602	1.40	.95	....
2N285	BEN	21FX6157	3.35	2.30	....
2N292	GE	21F3018	.75	.50	....
2N293	GE	21F3019	.83	.55	....
2N297A	MOT	21FX4376	2.90	1.95	....
2N297A	BEN	21FX6158	3.00	2.00	....
2N301	BEN	21FX6235	1.95	1.30	....
2N301	RCA	21F7041	1.52	1.01	....
2N301A	RCA	21F7042	3.51	2.48	....
2N301A	BEN	21FX6255	4.25	2.85	....
2N306	SYL	21F4521	.84	.56	....
2N307	BEN	21FX6159	1.35	.90	....
2N307A	BEN	21FX6160	1.85	1.25	....
2N319	GE	21F370	.44	.29	....
2N319	MOT	20F4310	1.50	1.00	....
2N320	GE	21F371	.59	.39	....
2N320	MOT	20F4311	1.57	1.05	....
2N321	GE	21F372	.68	.45	....
2N321	MOT	20F4312	1.60	1.07	....
2N322	GE	21F373	.48	.32	....
2N322	MOT	20F4313	.75	.50	....
2N323	GE	21F374	.60	.40	....
2N323	MOT	20F4314	.82	.55	....
2N324	GE	21F375	.75	.50	....
2N324	MOT	20F4349	.91	.61	....
2N326	SYL	21F4527	12.60	8.40	....
2N327A	RAY	21F538	4.55	3.50	....
2N327A	HUG	21FX7861	4.00	3.00	....
2N328A	RAY	21F539	7.48	5.75	....
2N328A	HUG	21FX7862	5.75	4.31	....
2N329A	RAY	21F540	15.16	11.50	....
2N329A	HUG	21FX7863	12.55	9.41	....
2N331	MOT	20F4020	1.50	1.00	....
2N331	BEN	21FX6161	1.80	1.20	....
2N332	RAY	20F9500	4.65	3.10	....
2N332	TI	21F5076	4.65	3.10	....
2N332	GE	20F3418	4.68	3.10	....
2N332A	GE	20F3419	4.95	3.30	....
2N332A	TI	20F5222	4.95	3.30	....
2N333	GE	21F3023	4.65	3.10	....
2N333	RAY	20F9501	4.65	3.10	....
2N333	TI	21F5077	4.65	3.10	....
2N333A	GE	21FX3421	4.95	3.30	....
2N333A	TI	20F5223	4.95	3.30	....
2N334	TI	21F5078	4.65	3.10	....
2N334	GE	21F3084	4.65	3.10	....
2N334	RAY	20F9502	4.65	3.10	....
2N334A	GE	21FX3422	4.95	3.30	....
2N334A	TI	20F5224	4.95	3.30	....
2N335	GE	21F3026	4.95	3.30	....
2N335A	GE	21FX3423	5.25	3.50	....
2N335A	TI	20F5225	5.25	3.50	....
2N335	RAY	20F9503	4.95	3.30	....
2N335B	GE	21FX3545	8.90	5.95	....
2N336	TI	21F5080	6.00	4.00	....
2N336	GE	21F3104	6.00	4.00	....
2N336	RAY	20F9504	6.00	4.00	....
2N336A	GE	21FX3424	6.30	4.20	....
2N336A	TI	20F5226	6.30	4.20	....
2N337	TI	21F5082	4.85	3.20	....
2N337	GE	21FX3300	4.85	3.20	....
2N337A	GE	20F3420	5.15	3.40	....
2N338	TI	21F5081	5.65	3.65	....
2N338	GE	21FX3301	5.50	3.65	....
2N338	RAY	21FX9679	5.50	3.65	....
2N338A	GE	20F3244	5.80	3.85	....
2N339	TI	21F5083	10.15	6.75	....
2N340	TI	21F5084	10.80	7.20	....
2N341	TI	21F5085	17.50	11.65	....
2N342	TI	21F5086	11.85	7.90	....
2N342A	TI	21F5088	11.90	7.95	....
2N342B	TI	21FX5677	16.75	11.20	....
2N343	TI	21F5087	18.40	12.25	....
2N343B	TI	21FX5678	22.40	14.90	....
2N344	SPR	21F8224	3.45	2.50	....
2N345	SPR	21F8225	4.35	3.15	....
2N346	SPR	21F8226	5.85	4.25	....
2N350A	MOT	21FX4373	1.70	1.15	....
2N351A	MOT	21FX4374	1.80	1.20	....
2N351	RCA	21F7043	2.03	1.35	....
2N359	RAY	21FX9629	1.40	.93	....
2N360	RAY	21FX9630	1.23	.82	....
2N361	RAY	21FX9631	1.06	.77	....
2N362	RAY	21F504	.83	.55	....
2N363	RAY	21F505	.72	.48	....
2N370	RCA	21F7012	1.16	.77	....
2N371	RCA	21F7013	1.12	.75	....
2N372	RCA	21F7014	1.12	.75	....
2N375	MOT	21F4001	4.10	2.75	....
2N376	RCA	21F7044	2.10	1.40	....
2N376	BEN	21FX6236	1.85	1.25	....
2N376A	BEN	21FX6237	1.85	1.25	....
2N376A	MOT	21FX4375	1.85	1.25	....
2N377	GE	21FX3565	1.56	1.04	....
2N384	RCA	21F7015	2.06	1.38	....
2N385	GE	21FX3566	1.89	1.26	....
2N388	GE	21FX3425	1.50	1.00	....
2N388	TI	20F5209	.60	.40	....
2N388	RCA	20F7051	1.50	1.00	....
2N388	RAY	21FX9680	1.43	.95	....
2N388A	RAY	21FX9681	1.95	1.30	....
2N388A	RCA	20F7052	2.57	1.72	....
2N388A	TI	20F5210	2.57	1.71	....
2N389	RAY	20F9505	42.00	30.00	....
2N389	TI	21F5089	45.00	28.00	....
2N393	SPR	21F8218	4.35	3.15	....
2N394	GE	21FX3567	.66	.44	....
2N394A	GE	20F3121	.58	.39	....
2N395	GE	21F3112	.67	.44	....
2N395	RAY	20F9506	.93	.62	....
2N395	TI	21FX5523	.67	.44	....
2N396	GE	21F3113	.84	.56	....
2N396	RAY	20F9507	1.35	.90	....
2N396	TI	21FX5524	.84	.56	....
2N396A	GE	21FX3317	.84	.56	....
2N397	GE	21F3114	1.33	.89	....
2N397	RAY	20F9508	2.67	1.78	....
2N397	TI	21FX5525	1.34	.89	....
2N398	MOT	21FX3800	1.30	.87	....
2N398	RCA	21F7016	1.30	.87	....
2N398A	RCA	20F7042	1.30	.87	....
2N398A	MOT	21FX3890	1.30	.87	....
2N398B	RCA	20F7072	1.62	1.08	....
2N400	BEN	21FX6163	2.55	1.70	....
2N404	TI	20F5150	.50	.33	....
2N404	RCA	21F7017	.63	.42	....
2N404	GE	21FX3318	.63	.48	....
2N404	RAY	21F9550	.90	.60	....
2N404A	GE	20F3010	.96	.64	....
2N404A	RCA	21FX7211	.84	.56	....
2N404A	RAY	21FX9682	1.13	.75	....
2N404A	TI	20F5211	.85	.57	....
2N405	RCA	21F7037	.41	.28	....
2N406	RCA	21F7018	.41	.28	....
2N407	RCA	21F7045	.51	.34	....
2N408	RCA	21F7019	.51	.34	....
2N409	RCA	21F7048	.61	.41	....
2N410	RCA	21F7020	.61	.41	....
2N411	RCA	21F7051	.64	.43	....
2N412	RCA	21F7021	.64	.43	....
2N413	GE	21FX3569	.83	.55	....
2N413	RAY	21F511	.61	.40	....
2N414	GE	21FX3570	.83	.55	....
2N414	RAY	21F495	.96	.64	....
2N414	RCA	21FX7350	.83	.55	....
2N416	RAY	21F496	1.80	1.20	....
2N417	RAY	21F497	2.65	1.75	....
2N418	BEN	21FX6165	5.45	3.65	....
2N419	BEN	21FX6166	1.88	1.25	....
2N420	BEN	21FX6167	2.40	1.60	....
2N420A	BEN	21FX6168	4.20	2.80	....
2N422	RAY	21F506	1.95	1.30	....
2N424	RAY	20F9509	36.00	24.00	....
2N424	TI	21F5175	33.00	22.00	....
2N425	RAY	21F9551	1.20	.80	....
2N426	RAY	21F9552	1.35	.90	....
2N426	TI	21FX5883	1.05	.70	....
2N427	RAY	21F9553	1.80	1.20	....
2N427	TI	21FX5884	1.17	.78	....
2N427	GE	20F3122	1.17	.78	....
2N428	RAY	21F9554	2.62	1.75	....
2N428	TI	21FX5885	1.80	1.20	....
2N428	GE	20F3123	1.80	1.20	....
2N438A	RAY	21FX9683	1.50	1.00	....
2N440A	RAY	21FX9684	3.00	2.00	....
2N441	RCA	21FX7191	2.72	1.82	....
2N441	MOT	21FX3881	3.05	2.05	....
2N442	MOT	21FX3879	4.40	2.98	....
2N442	RCA	21FX7192	4.42	2.95	....
2N443	MOT	21FX3877	5.45	3.65	....
2N443	RCA	21FX7193	4.42	2.95	....
2N456A	BEN	21FX6246	2.60	1.75	....
2N456A	TI	21FX5672	2.60	1.75	....
2N457A	BEN	21FX6247	3.30	2.20	....
2N457A	TI	21FX5673	3.30	2.20	....
2N458A	BEN	21FX6248	4.70	3.15	....
2N458A	TI	21FX5674	4.70	3.15	....
2N461	GE	21FX3571	1.75	1.15	....
2N461	MOT	20F4471	1.70	1.18	....
2N464	RAY	21F9555	1.65	1.10	....
2N464	MOT	21F4029	1.50	1.00	....
2N465	MOT	21F4030	1.50	1.00	....
2N466	MOT	21F4031	1.65	1.10	....
2N466	RAY	21F9557	1.80	1.17	....
2N467	MOT	21F4032	2.10	1.40	....
2N470	TI	20F5267	3.45	2.30	....
2N471	TI	21FX5963	5.60	3.75	....
2N472	TI	21FX5269	7.45	4.95	....
2N473	TI	20F5271	3.45	2.50	....
2N474A	TI	20F5272	6.70	4.50	....
2N476	TI	20F5275	8.80	6.00	....
2N477	TI	20F5276	9.80	6.55	....
2N478	TI	20F5277	3.70	2.80	....
2N489	GE	21F3086	7.10	4.75	....
2N489	TI	20F5282	7.10	4.75	....
2N489A	GE	20F3360	7.65	5.00	....
2N489A	TI	21FX5928	7.65	5.10	....
2N489B	GE	20F3361	9.15	6.10	....
2N489B	TI	20FX5929	9.15	6.10	....
2N490	GE	21F3087	7.80	5.20	....
2N490	TI	20F5283	7.80	5.26	....
2N490A	GE	20F3362	8.35	5.55	....
2N490A	TI	21FX5930	8.35	5.55	....
2N490B	GE	20F3363	9.85	6.55	....
2N490B	TI	21FX5931	9.85	6.55	....
2N491	GE	21F3088	8.40	5.60	....
2N491	TI	20F5284	8.40	5.60	....
2N491A	GE	21F3089	8.90	5.95	....
2N491A	TI	21FX5932	8.90	5.95	....
2N491B	GE	21F3364	10.40	6.95	....
2N491B	TI	21FX5933	10.40	6.95	....
2N492	GE	21F3089	9.80	6.55	....
2N492	TI	20F5285	9.80	6.55	....
2N492A	GE	20F3366	10.40	6.95	....
2N492A	TI	21FX5934	10.40	6.95	....
2N492B	GE	20F3367	11.90	6.95	....
2N492B	TI	21FX5935	11.90	7.95	....
2N493	GE	21FX3555	10.75	7.20	....
2N493	TI	20F5286	10.75	7.20	....
2N493A	GE	20F3368	11.20	7.50	....
2N493A	TI	21FX5936	11.20	7.50	....
2N493B	GE	20F3369	12.75	8.50	....
2N493B	TI	21FX5937	12.75	8.50	....
2N494	GE	21FX3356	10.90	7.30	....
2N494	TI	20F5287	10.90	7.30	....
2N494A	GE	20F3370	11.40	7.60	....
2N494A	TI	21FX5938	11.40	7.60	....
2N494B	GE	20F3371	12.90	8.60	....
2N494B	TI	21FX5939	12.90	8.50	....
2N497	RAY	21FX9685	6.35	4.25	....
2N497	TI	21F5150	33.00	22.00	....
2N497	GE	21FX3606	8.85	5.90	....
2N497A	GE	21FX3607	8.85	5.90	....
2N497A	TI	21FX5992	33.00	22.00	....
2N498	GE	21FX3608	11.35	7.55	....
2N498	RAY	21FX9686	7.90	5.25	....
2N498	TI	21F5151	8.85	5.90	....
2N498A	GE	21FX3609	11.35	7.55	....
2N498A	TI	21FX5993	8.95	5.95	....
2N499	SPR	21F8208	3.95	2.90	....
2N501	SPR	21F8209	6.35	4.65	....
2N501A	SPR	21F8210	7.05	5.15	....
2N501/18	SYL	20F4617	5.17	3.45	....
2N504	SPR	21F8211	3.45	2.50	....
2N508	GE	21F3092	.83	.55	....
2N508	MOT	20F4315	1.00	.66	....
2N511	TI	21FX5500	4.50	3.00	....
2N511A	BEN	21FX6238	5.25	3.50	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
2N511A	TI	21FX5501	5.25	3.50	....
2N511B	BEN	21FX6239	6.35	4.30	....
2N511B	TI	21FX5502	6.45	4.30	....
2N512	TI	21FX5503	5.25	3.50	....
2N512A	BEN	21FX6240	6.00	4.00	....
2N512A	TI	21FX5504	6.00	4.00	....
2N512B	TI	21FX5505	7.95	5.30	....
2N512B	BEN	21FX6241	7.95	5.30	....
2N513	TI	21FX5506	6.00	4.00	....
2N513A	BEN	21FX6242	6.65	4.45	....
2N513A	TI	21FX5507	6.65	4.45	....
2N513B	BEN	21FX6243	8.65	5.80	....
2N513B	TI	21FX5508	8.70	5.80	....
2N514	TI	21FX5509	8.25	5.50	....
2N514A	BEN	21FX6244	8.30	5.60	....
2N514A	TI	21FX5510	8.40	5.60	....
2N514B	BEN	21FX6245	12.00	8.00	....
2N514B	TI	21FX5511	12.00	8.00	....
2N524	MOT	20F4316	1.57	1.05	....
2N524	GE	21F3094	1.30	.87	....
2N524	TI	20F5229	1.35	.90	....
2N524A	MOT	20F4317	1.95	1.30	....
2N525	GE	21F3095	1.30	.87	....
2N525	MOT	20F4318	1.65	1.10	....
2N525	TI	20F5230	1.65	1.10	....
2N525A	MOT	20F4319	2.02	1.35	....
2N526	GE	21F3096	1.65	1.10	....
2N526	MOT	20F4320	1.65	1.10	....
2N526	TI	20F5231	1.65	1.10	....
2N526A	MOT	20F4321	2.02	1.35	....
2N527	MOT	20F4322	1.90	1.27	....
2N527	GE	21F3097	1.91	1.27	....
2N527	TI	20F5232	1.99	1.27	....
2N527A	MOT	20F4323	2.28	1.52	....
2N542	TI	20F5228	6.30	4.20	....
2N543	TI	20F5289	8.10	5.40	....
2N554	MOT	21F4009	.60	.40	....
2N555	MOT	21F4010	.90	.50	....
2N578	RCA	21F7056	.99	.66	....
2N579	RCA	21F7057	1.57	1.05	....
2N580	RCA	21F7060	2.06	1.38	....
2N581	RCA	21F7058	.50	.33	....
2N582	RCA	21F7061	.99	.66	....
2N583	RCA	21F7059	.83	.55	....
2N584	RCA	21F7062	3.12	2.15	....
2N585	RCA	21F7030	.99	.66	....
2N586	RCA	21F7052	1.73	1.16	....
2N588	SPR	21F8212	1.40	1.05	....
2N591	RCA	21F7038	.66	.44	....
2N594	TI	21FX5886	2.76	1.83	....
2N595	TI	21FX5887	4.26	2.83	....
2N596	TI	21FX5888	5.66	3.76	....
2N618	MOT	21F4012	4.50	3.00	....
2N624	SYL	20F4618	8.10	5.40	....
2N627	MOT	21F4013	3.45	2.30	....
2N628	MOT	21F4014	4.35	2.90	....
2N629	MOT	21F4015	6.90	4.60	....
2N630	MOT	21F4016	9.75	6.50	....
2N631	RAY	21FX9637	.90	.60	....
2N634	GE	21F3115	1.00	.67	....
2N634A	GE	21FX3572	1.00	.67	....
2N635	GE	21F3116	1.41	.94	....
2N635A	GE	21FX3573	1.41	.94	....
2N636	GE	21F3117	2.11	1.41	....
2N636A	GE	21FX3574	2.11	1.41	....
2N637	BEN	21FX6169	2.40	1.60	....
2N637A	BEN	21FX6170	2.75	1.85	....
2N637B	BEN	21FX6171	5.25	3.50	....
2N638	BEN	21FX6172	2.45	1.70	....
2N638A	BEN	21FX6173	3.95	2.67	....
2N638B	BEN	21FX6174	5.45	3.67	....
2N643	RCA	21FX7118	1.40	.94	....
2N644	RCA	21FX7119	1.65	1.10	....
2N645	RCA	21FX7120	2.64	1.76	....
2N647	RCA	21FX7105	1.16	.77	....
2N649	RCA	21FX7106	.86	.57	....
2N650	MOT	21F4033	1.85	1.25	....
2N651	MOT	21F4034	1.85	1.25	....
2N615A	MOT	20F4474	2.30	1.55	....
2N652	MOT	21F4035	2.40	1.60	....
2N652A	MOT	20F4475	2.75	1.85	....
2N653	MOT	21F4036	1.65	1.10	....
2N654	MOT	21F4037	1.80	1.20	....
2N655	MOT	21F4038	1.95	1.30	....
2N656	TI	21F5172	11.35	7.55	....
2N656	GE	21FX3610	9.85	6.55	....
2N656A	GE	21FX3611	9.85	6.55	....
2N656A	TI	21FX5994	11.45	7.60	....
2N657	TI	21F5173	9.85	6.55	....
2N657	GE	21FX3612	10.05	6.70	....
2N657A	GE	21FX3613	10.05	6.70	....
2N657A	TI	21FX5995	9.95	6.60	....
2N658	RAY	21F9545	1.95	1.30	....
2N661	RAY	21F9548	4.68	3.12	....
2N669	MOT	21FX4372	1.70	1.15	....
2N677	BEN	21FX6178	3.15	2.10	....
2N677A	BEN	21FX6179	4.40	2.90	....
2N677B	BEN	21FX6180	7.63	4.75	....
2N677C	BEN	21FX6181	13.13	8.75	....
2N678	BEN	21FX6182	4.40	2.90	....
2N678A	BEN	21FX6183	5.40	3.60	....
2N678B	BEN	21FX6184	12.00	8.00	....
2N678C	BEN	21FX6185	22.50	15.00	....
2N681	WES	21FX9981	13.10	8.75	....
2N681/C35U	GE	21F3150	13.10	8.75	....
2N681	TI	20F5214	13.10	8.75	....
2N681A	TI	20F5310	13.10	8.75	....
2N682	WES	21FX9982	13.90	9.25	....
2N682/C35F	GE	21F3151	13.90	9.25	....
2N682	TI	20F5215	13.90	9.25	....
2N682A	TI	20F5311	13.90	9.25	....
2N683	WES	21FX9983	15.75	10.50	....
2N683/C35A	GE	21F3152	15.75	10.50	....
2N683	TI	20F5216	15.75	10.50	....
2N683A	TI	20F5312	15.75	10.50	....
2N684	WES	21FX9984	18.75	12.50	....
2N684/C35G	GE	21F3153	18.75	12.50	....
2N684	TI	20F5217	18.75	12.50	....
2N684A	TI	20F5313	18.75	12.50	....
2N685	WES	21FX9985	22.50	15.00	....
2N685/C35B	GE	21F3154	22.50	15.00	....
2N685	TI	20F5218	22.50	15.00	....
2N685A	TI	20F5314	22.50	15.00	....
2N686	WES	21FX9986	27.75	18.50	....
2N686/C35H	GE	21F3155	27.75	18.50	....
2N686	TI	20F5219	27.75	18.50	....
2N686A	TI	20F5315	27.75	18.50	....
2N687	WES	21FX9987	33.00	22.00	....
2N687/C35C	GE	21F3156	33.00	22.00	....
2N687	TI	20F5220	33.00	22.00	....
2N687A	TI	20F5316	33.00	22.00	....
2N688/C35D	GE	21FX3332	43.50	29.00	....
2N688	TI	20F5221	43.50	29.00	....
2N688A	TI	20F5317	43.50	29.00	....
2N689	TI	20F5424	54.00	36.00	....
2N689	GE	20F3152	54.00	36.00	....
2N689A	TI	20F5318	54.00	36.00	....
2N695	MOT	21FX4385	17.50	11.75	....
2N696	TI	21FX5521	5.60	3.75	....
2N696	GE	20F3189	4.15	2.75	....
2N696	RCA	21FX7217	1.57	1.05	....
2N696	SYL	20F4556	4.13	2.75	....
2N696	HUG	20F7702	5.00	3.75	....
2N697	TI	21FX5522	6.55	4.35	....
2N697	GE	20F3190	4.45	2.95	....
2N697	RCA	21FX7218	2.06	1.38	....
2N697	RAY	21FX9691	6.50	4.35	....
2N697	SYL	20F4652	4.85	3.30	....
2N697	HUG	20F7704	5.80	4.35	....
2N697	RAY	21FX9691	6.50	4.35	....
2N697A	RAY	21FX9692	16.90	10.90	....
2N698	RAY	21FX9693	7.15	4.75	....
2N698	TI	20F5001	10.05	6.95	....
2N698	HUG	20F7706	9.26	6.95	....
2N698	GE	20F3412	10.05	6.95	....
2N699	RCA	20F7053	4.95	3.30	....
2N699	HUG	20F7708	12.67	9.50	....
2N699	GE	20F3413	14.25	9.50	....
2N699	TI	20F5002	14.25	9.50	....
2N700	MOT	21F4039	7.35	4.90	....
2N700A	MOT	20F4282	11.85	8.70	....
2N702	TI	21F5154	12.90	8.60	....
2N703	TI	21FX5602	16.35	10.90	....
2N705	MOT	21FX3811	2.90	1.94	....
2N705	SYL	21FX4801	2.48	1.65	....
2N705	RAY	20F9510	4.30	2.78	....
2N705	RCA	20F7000	1.98	1.32	....
2N705	TI	21F5153	2.48	1.65	....
2N705A	SYL	20F4557	2.91	1.94	....
2N706	HUG	20F7562	5.00	3.75	....
2N706	RCA	21FX7185	1.57	1.05	....
2N706	TI	21FX5612	4.74	3.16	....
2N706	MOT	21FX3870	3.72	2.48	....
2N706	SYL	20F4558	3.71	2.48	....
2N706	GE	20F3239	3.72	2.48	....
2N706A	GE	20F3240	4.15	2.75	....
2N706A	SYL	20F4559	4.13	2.75	....
2N706A	HUG	20F7563	5.10	3.82	....
2N706A	RCA	21FX7186	1.82	1.21	....
2N706A	MOT	21FX3871	5.40	3.60	....
2N706A	TI	21FX5613	5.40	3.60	....
2N706B	MOT	21FX3872	5.40	3.60	....
2N706B	TI	21FX5954	5.40	3.60	....
2N706B	HUG	20F7697	5.25	3.94	....
2N707	HUG	20F7564	10.00	7.50	....
2N707	MOT	21FX3891	7.54	2.48	....
2N707A	MOT	21FX3892	22.50	15.00	....
2N708	GE	20F3241	4.60	3.05	....
2N708	RCA	21FX7219	2.89	1.93	....
2N708	SYL	21FX4880	4.54	3.08	....
2N708	HUG	20F7698	7.46	5.59	....
2N709	RCA	20F7077	11.39	8.62	....
2N710	RAY	20F9511	4.30	2.78	....
2N710	RCA	20F7001	1.73	1.16	....
2N710	TI	21FX5526	2.48	1.65	....
2N710	MOT	21FX3812	2.48	1.65	....
2N710	SYL	21FX4802	2.48	1.65	....
2N711	RCA	20F7002	1.16	.77	....
2N711	RAY	20F9512	2.40	1.60	....
2N711	MOT	21FX3814	1.53	1.02	....
2N711	SYL	21FX4803	1.49	.99	....
2N711	TI	21FX5659	1.45	.97	....
2N711A	SYL	20F4560	1.53	1.02	....
2N711A	TI	20F5003	1.45	.97	....
2N711A	MOT	20F4339	1.53	1.02	....
2N711B	MOT	20F4340	2.18	1.45	....
2N711B	SYL	20F4623	2.18	1.45	....
2N711B	TI	20F5155	1.56	1.02	....
2N717	RAY	21FX9694	5.65	3.75	....
2N717	TI	21FX5984	5.60	3.75	....
2N717	HUG	20F7703	5.00	3.75	....
2N717	GE	20F3405	5.60	3.75	....
2N718	RAY	21FX9695	6.50	4.35	....
2N718	TI	21FX5985	6.55	4.35	....
2N718	HUG	20F7705	5.80	4.35	....
2N718	GE	20F3406	6.55	4.35	....
2N718A	GE	20F3407	13.10	8.75	....
2N718A	RAY	21FX9696	14.90	9.95	....
2N718A	TI	20F5257	13.10	8.75	....
2N719	RAY	21FX9697	7.15	4.75	....
2N719	HUG	20F7707	9.26	6.95	....
2N719	TI	20F5258	10.05	6.95	....
2N719	GE	20F3408	10.05	6.95	....
2N719A	GE	20F3409	11.10	7.40	....
2N719A	TI	21FX5986	11.10	7.40	....
2N720	TI	20F5259	14.25	9.50	....
2N720	HUG	20F7709	12.67	9.50	....
2N720	GE	20F3410	14.25	9.50	....
2N720	RAY	21FX9698	8.50	5.65	....
2N720	TI	20F5259	14.25	9.50	....
2N720A	TI	21FX5987	17.10	11.40	....
2N720A	GE	20F3411	17.40	11.40	....
2N721	TI	21FX5988	8.00	5.35	....
2N721	HUG	20F7714	6.06	4.55	....
2N721	TI	21FX5988	8.00	5.35	....
2N722	TI	21FX5989	20.90	15.65	....
2N722	HUG	20F7715	11.15	8.36	....
2N726	TI	21FX5776	15.00	10.00	....
2N726	HUG	20F7712	13.33	10.00	....
2N727	TI	21FX5955	25.00	16.65	....
2N730	RAY	21FX9699	5.55	3.75	....
2N730	TI	21F5313	5.60	3.75	....
2N730	TI	21F5318	5.60	3.75	....
2N731	RAY	21FX9700	6.50	4.35	....
2N731	TI	21F5319	6.55	4.35	....
2N734	TI	20F5004	8.95	5.95	....
2N735	TI	20F5005	8.95	5.95	....
2N735	TI	20F5005	8.95	5.95	....
2N736	TI	21FX5619	9.90	6.60	....
2N736A	TI	20F5297	9.90	6.60	....
2N738	TI	21FX5779	12.50	8.30	....
2N739	TI	21FX5780	12.50	8.30	....
2N740	TI	21FX5781	12.40	8.30	....
2N741	MOT	21FX3813	2.15	1.45	....
2N741	SYL	20F4624	2.15	1.45	....
2N741A	MOT	20F4023	3.30	2.20	....
2N741A	SYL	20F4625	3.30	2.20	....
2N743	TI	21FX5798	7.65	5.10	....
2N743	SYL	20F4626	7.65	5.10	....
2N743	HUG	20F7699	6.80	5.10	....
2N744	HUG	20F7700	7.33	5.50	....
2N744	TI	21FX5799	8.25	5.50	....
2N744	SYL	20F4627	8.25	5.50	....
2N745	RAY	21FX9639	17.75	11.85	....
2N746	RAY	21FX9640	20.50	13.65	....
2N747	RAY	21FX9641	22.50	15.00	....
2N748	RAY	21FX9642	20.25	13.50	....
2N750	RAY	21FX9644	40.50	27.00	....
2N751	RAY	21FX9645	11.25	7.50	....
2N753	GE	20F7568	6.40	4.25	....
2N753	MOT	21FX3893	6.38	4.25	....
2N753	TI	21FX5614	6.40	4.25	....
2N753	HUG	20F7565	7.85	5.90	....
2N753	SYL	20F4628	6.00	4.00	....
2N759	GE	20F3223	11.55	7.70	....
2N760	GE	20F3224	11.90	7.90	....
2N760	TI	20F5151	11.90	7.90	....
2N760A	TI	20F5152	14.95	9.95	....
2N768	SPR	21F8213	5.85	4.25	....
2N769	SPR	21F8214	6.75	4.95	....

SEMICONDUCTOR DIRECTORY

Type	Mfr.	Stock No.	1-99	100-999	1000-up
2N779A	SPR	21F8215	5.60	4.10	....
2N780/ TI-490	TI	21FX5785	10.95	7.30	....
2N781	SYL	21FX4845	11.72	7.81	....
2N782	SYL	21FX4846	2.67	1.78	....
2N783	SYL	20F4561	7.50	5.00	....
2N784	SYL	20F4562	8.08	5.39	....
2N784A	SYL	21F4881	11.25	7.50	....
2N794	RCA	20F7003	1.49	.95	....
2N795	RCA	20F7004	1.98	1.32	....
2N796	RCA	20F7005	2.89	1.93	....
2N797	TI	20F5243	4.58	3.05	....
2N828	MOT	21FX3868	6.00	4.00	....
2N828	RCA	20F7041	3.30	2.20	....
2N828	SYL	20F4629	4.00	2.67	....
2N828A	MOT	20F4331	6.00	4.00	....
2N829	MOT	20F4332	6.90	4.60	....
2N834	GE	20F3242	8.25	5.50	....
2N834	MOT	21FX3883	8.25	5.50	....
2N834	SYL	20F4630	8.25	5.50	....
2N834	RCA	20F7068	6.19	4.13	....
2N835	MOT	21FX3894	5.40	3.60	....
2N835	SYL	20F4631	5.40	3.60	....
2N846A	SPR	21F8216	5.40	3.95	....
2N849/ TI430	TI	20F5143	8.10	5.40	....
2N850/ TI431	TI	20F5144	9.60	6.40	....
2N851/ TI422	TI	20F5138	11.50	7.65	....
2N852/ TI423	TI	20F5139	12.40	8.25	....
2N869	HUG	20F7713	23.87	17.90	....
2N870	TI	20F5260	15.45	10.30	....
2N871	TI	21FX5990	18.45	12.30	....
2N896	HUG	20F7713	23.87	17.90	....
2N905	RAY	21FX9688	18.45	12.30	....
2N914	HUG	20F7701	13.60	10.20	....
2N914	GE	20F3243	7.90	5.25	....
2N914	MOT	20F4348	15.30	10.20	....
2N914	RCA	20F7069	5.78	3.85	....
2N915	GE	20F3225	16.20	10.85	....
2N916	GE	20F3226	12.30	8.25	....
2N929	TI	20F5212	12.25	8.15	....
2N930	TI	20F5213	19.90	13.30	....
2N934	RCA	21FX7220	6.60	4.40	....
2N955	RCA	20F7039	4.79	3.19	....
2N955A	RCA	20F7074	5.36	3.58	....
2N960	SYL	20F4632	4.00	2.68	....
2N960	MOT	20F4024	3.98	2.65	....
2N960	TI	20F5458	3.85	2.56	....
2N961	MOT	20F4025	3.15	2.10	....
2N961	SYL	20F4633	3.18	2.12	....
2N961	TI	20F5156	3.15	2.10	....
2N962	MOT	20F4026	2.40	1.60	....
2N962	SYL	20F4634	2.58	1.72	....
2N962	TI	20F5157	2.40	1.60	....
2N963	MOT	20F4341	1.57	1.05	....
2N963	TI	20F5459	1.57	1.05	....
2N963	SYL	21FX4875	1.57	1.05	....
2N964	MOT	20F4027	4.58	3.05	....
2N964	SYL	20F4635	4.57	3.05	....
2N964	TI	20F5158	5.25	3.50	....
2N964A	MOT	20F4336	5.25	3.50	....
2N965	MOT	20F4028	3.75	2.50	....
2N965	SYL	20F4636	3.78	2.52	....
2N965	TI	20F5159	4.11	2.74	....
2N966	MOT	20F4029	2.85	1.90	....
2N966	SYL	20F4637	3.18	2.12	....
2N966	TI	20F5160	3.75	2.50	....
2N967	MOT	20F4342	1.95	1.30	....
2N967	TI	20F5460	1.95	1.30	....
2N967	SYL	21FX4876	1.95	1.30	....
2N968	MOT	20F4030	2.33	1.55	....
2N969	MOT	20F4031	1.95	1.30	....
2N970	MOT	20F4032	1.65	1.10	....
2N971	MOT	20F4033	1.20	.80	....
2N972	MOT	20F4034	2.70	1.80	....
2N973	MOT	20F4035	2.10	1.40	....
2N974	MOT	20F4036	1.65	1.10	....
2N975	MOT	20F4037	1.43	.95	....
2N985	TI	20F5153	4.11	2.74	....
2N985	SYL	21FX4877	4.58	3.05	....
2N987	AMP	21FX2674	2.25	1.50	....
2N995	HUG	20F7717	23.87	17.90	....
2N997	TI	21FX5957	25.35	16.90	....
2N1008	BEN	21FX6186	1.20	.80	....
2N1008A	BEN	21FX6187	1.65	1.10	....
2N1008B	BEN	21FX6188	3.00	2.00	....
2N1010	RCA	21FX7101	2.89	1.93	....
2N1011	MOT	21FX4377	4.35	2.90	....

Type	Mfr.	Stk. No.	1-24	25-99	1000-up
2N1015	WES	21FX9917	25.00	21.00	....
2N1015A	WES	21FX9918	31.00	25.00	....
2N1015B	WES	21FX9919	48.00	39.00	....
2N1015C	WES	21FX9920	58.00	48.50	....
2N1015D	WES	21FX9921	70.00	58.50	....
2N1015E	WES	21FX9922	110.00	91.75	....
2N1016	WES	21FX9924	40.00	33.50	....
2N1016A	WES	21FX9925	57.00	46.00	....
2N1016B	WES	21FX9926	76.00	59.00	....
2N1016C	WES	21FX9927	90.00	75.25	....
2N1016D	WES	21FX9928	115.00	96.00	....
2N1016E	WES	21FX9989	150.00	125.00	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
2N1021	TI	21F5170	6.20	4.15	
2N1022	TI	21F5171	9.75	6.50	....
2N1023	RCA	21FX7146	2.89	1.93	....
2N1031	BEN	21FX6190	3.30	2.20	....
2N1031A	BEN	21FX6191	4.50	3.00	....
2N1031B	BEN	21FX6192	8.60	5.75	....
2N1031C	BEN	21FX6193	13.00	8.75	....
2N1032	BEN	21FX6194	4.50	3.00	....
2N1032A	BEN	21FX6195	5.45	3.65	....
2N1032B	BEN	21FX6196	12.00	8.00	....
2N1032C	BEN	21FX6197	22.50	15.00	....
2N1034	RAY	21F592	4.22	3.25	....
2N1035	RAY	21F593	7.15	5.50	....
2N1036	RAY	21F594	13.65	10.50	....
2N1037	RAY	21F595	6.50	5.00	....
2N1038	TI	21F5120	2.85	1.90	....
2N1039	TI	21F5121	3.75	2.50	....
2N1040	TI	21F5122	11.25	7.50	....
2N1041	TI	21F5123	15.75	10.50	....
2N1042	TI	21F5124	5.25	3.50	....
2N1043	TI	21F5167	9.00	6.00	....
2N1044	TI	21F5168	13.50	9.00	....
2N1045	TI	21F5169	18.00	12.00	....
2N1046	TI	21F5119	10.00	6.70	....
2N1046A	TI	20F5335	18.35	12.25	....
2N1046B	TI	21F5344	25.00	16.70	....
2N1047	TI	21F5180	10.05	6.70	....
2N1047A	TI	21FX5682	10.15	6.75	....
2N1047B	TI	20F5250	23.35	16.90	....
2N1048	TI	21F5181	23.95	17.30	....
2N1048A	TI	21FX5683	32.95	21.95	....
2N1048B	TI	20F5251	38.35	25.55	....
2N1049	TI	21F5182	29.95	19.95	....
2N1049A	TI	21FX5684	29.95	19.95	....
2N1049B	TI	20F5252	33.75	22.50	....
2N1050	TI	21F5183	41.85	27.90	....
2N1050A	TI	21FX5685	41.85	27.90	....
2N1050B	TI	20F5253	47.05	31.35	....
2N1057	GE	21FX3320	5.25	3.50	....
2N1058	SYL	21F4570	1.75	1.17	....
2N1059	SYL	21F4571	1.00	.67	....
2N1066	AMP	21FX2661	4.10	2.72	....
2N1066	RCA	21FX7147	2.89	1.93	....
2N1067	RCA	21FX7121	20.95	13.95	....
2N1069	RCA	21FX7123	49.90	33.30	....
2N1073	BEN	21FX6198	2.85	1.90	....
2N1073A	BEN	21FX6199	5.85	3.90	....
2N1073B	BEN	21FX6200	10.35	6.90	....
2N1086	GE	21FX3307	.83	.70	....
2N1086A	GE	21FX3308	1.57	1.05	....
2N1087	GE	21FX3309	1.82	1.21	....
2N1090	RCA	21FX7116	1.24	.83	....
2N1091	RCA	21FX7117	1.57	1.05	....
2N1092	RCA	21FX7221	10.75	7.15	....
2N1097	GE	21FX3310	.68	.45	....
2N1098	GE	21FX3311	.60	.40	....
2N1099	MOT	21FX3874	10.50	6.55	....
2N1099	RCA	21FX7194	6.83	4.55	....
2N1100	MOT	21FX3873	18.00	12.00	....
2N1100	RCA	21FX7195	9.82	6.55	....
2N1101	SYL	21F4572	.75	.50	....
2N1102	SYL	21F4573	.84	.56	....
2N1118	SPR	21F8202	8.40	6.25	....
2N1118A	SPR	21F8203	9.55	7.10	....
2N1119	SPR	21F8204	8.70	6.45	....
2N1120	BEN	21FX6201	8.25	5.50	....
2N1120	MOT	21FX4384	8.25	5.50	....
2N1121	GE	21FX3312	1.57	1.05	....
2N1122	SPR	21F8219	5.45	4.00	....
2N1122A	SPR	21F8220	6.75	4.95	....
2N1131	TI	21FX5897	8.00	5.35	....
2N1131	HUG	20F7558	6.06	4.55	....
2N1131A	HUG	20F7559	10.00	7.50	....
2N1132	TI	21FX5797	20.90	15.65	....
2N1132	HUG	20F7560	11.15	8.36	....
2N1132A	HUG	20F7561	16.65	12.50	....
2N1132B	HUG	20F7640	26.00	19.50	....
2N1136	BEN	21FX6202	2.55	1.70	....
2N1136A	BEN	21FX6203	3.60	2.40	....
2N1136B	BEN	21FX6204	5.10	3.40	....
2N1137	BEN	21FX6205	3.00	2.00	....
2N1137A	BEN	21FX6206	4.20	2.80	....
2N1137B	BEN	21FX6207	5.70	3.80	....
2N1138	BEN	21FX6208	3.60	2.40	....
2N1138A	BEN	21FX6209	5.85	3.90	....
2N1138B	BEN	21FX6210	8.85	5.90	....
2N1141	MOT	20F4343	10.12	6.75	....
2N1141	TI	21F5320	10.12	6.75	....
2N1142	TI	21F5321	9.45	6.30	....
2N1142	MOT	20F4285	9.45	6.30	....
2N1143	MOT	20F4286	6.38	4.25	....
2N1143	TI	21F5322	6.38	4.25	....
2N1144	GE	21FX3313	.68	.45	....
2N1145	GE	21FX3314	.60	.40	....
2N1149/ 903	TI	21F5000	8.65	5.75	....
2N1150/ 904	TI	21F5001	8.65	5.75	....
2N1151/ 904A	TI	21F5002	8.65	5.75	....
2N1152/ 905	TI	21F5003	11.35	7.35	....
2N1153/ 910	TI	21F5184	13.35	8.90	....
2N1154/ 951	TI	21F5008	12.65	8.40	....
2N1155/ 952	TI	21F5009	13.15	8.80	....
2N1156/ 953	TI	21F5010	17.65	11.75	....
2N1162	MOT	21FX4378	5.40	3.60	....
2N1163	MOT	21FX4379	5.40	3.60	....
2N1164	MOT	21FX4380	8.25	5.50	....
2N1164A	MOT	20F4407	10.85	7.25	....
2N1165	MOT	21FX4381	10.10	6.75	....
2N1165A	MOT	20F4408	10.85	7.25	....
2N1166	MOT	21FX4382	15.00	10.00	....
2N1166A	MOT	20F4409	15.75	10.50	....
2N1167	MOT	21FX4383	15.00	10.00	....
2N1167A	MOT	10F4458	15.75	10.50	....
2N1169	RCA	20F7006	1.98	1.32	....
2N1170	RCA	20F7007	3.71	2.48	....
2N1175	GE	20F3007	1.00	.66	....
2N1175	MOT	20F4324	1.00	.66	....
2N1175A	GE	20F3008	1.50	1.00	....
2N1176	BEN	21FX6211	.60	.40	....
2N1176A	BEN	21FX6212	1.05	.70	....
2N1176B	BEN	21FX6213	1.50	1.00	....
2N1177	RCA	20F7011	1.20	.80	....
2N1178	RCA	20F7012	1.16	.77	....
2N1179	RCA	20F7013	1.16	.77	....
2N1180	RCA	20F7014	.84	.56	....
2N1183	RCA	21FX7151	1.82	1.21	....
2N1183A	RCA	21FX7152	2.31	1.54	....
2N1183B	RCA	21FX7153	2.89	1.93	....
2N1184	RCA	21FX7154	4.95	3.30	....
2N1184A	RCA	21FX7155	4.54	3.03	....
2N1184B	RCA	21FX7156	6.19	4.13	....
2N1185	MOT	21FX3895	2.78	1.85	....
2N1186	MOT	21FX3896	2.60	1.75	....
2N1187	MOT	21FX3897	2.60	1.75	....
2N1188	MOT	21FX3898	3.15	2.10	....
2N1191	MOT	21F4045	1.12	.75	....
2N1192	MOT	21F4046	1.12	.75	....
2N1193	MOT	21F4047	1.50	1.00	....
2N1194	MOT	21FX3899	1.85	1.25	....
2N1195	MOT	20F4344	6.63	4.42	....
2N1195	TI	21FX5527	6.65	4.42	....
2N1196	HUG	21FX7846	11.35	8.50	....
2N1197	HUG	21FX7847	11.35	8.50	....
2N1198	GE	21FX3322	5.40	3.60	....
2N1204	MOT	20F4345	6.95	4.65	....
2N1213	RCA	21FX7140	4.54	3.03	....
2N1214	RCA	21FX7141	4.54	3.03	....
2N1215	RCA	21FX7142	4.54	3.03	....
2N1216	RCA	21FX7143	2.97	1.98	....
2N1217	GE	21FX3575	2.80	1.90	....
2N1218	SYL	21FX4806	7.50	5.00	....
2N1224	AMP	21FX2662	1.50	1.00	....
2N1224	RCA	21FX7111	1.49	.99	....
2N1224	SYL	20F4639	2.00	1.33	....
2N1225	AMP	21FX2663	1.60	1.06	....
2N1225	RCA	21FX7112	1.65	1.10	....
2N1225	SYL	20F4640	2.67	1.78	....
2N1226	AMP	21FX2673	2.00	1.35	....
2N1226	SYL	20F4641	3.23	2.16	....
2N1226	RCA	21FX7113	2.06	1.38	....
2N1228	HUG	21FX7814	4.65	3.50	....
2N1229	HUG	21FX7815	6.65	5.00	....
2N1230	HUG	21FX7816	8.65	6.50	....
2N1231	HUG	21FX7817	10.65	8.00	....
2N1232	HUG	21FX7818	16.00	12.00	....
2N1233	HUG	21FX7819	18.35	13.75	....
2N1234	HUG	21FX7820	24.67	18.50	....
2N1238	HUG	21FX7821	5.00	3.75	....
2N1239	HUG	21FX7822	7.00	5.25	....
2N1240	HUG	21FX7823	9.00	6.75	....
2N1241	HUG	21FX7824	14.65	11.00	....
2N1242	HUG	21FX7825	17.60	13.20	....
2N1243	HUG	21FX7826	20.00	15.00	....
2N1244	HUG	21FX7827	27.65	20.75	....
2N1247	TI	21FX5964	18.50	12.35	....

See Pages 25 to 69 for Complete Listings of Semiconductors by Mfrs.

Type	Mfr.	Stock No.	1-99	100-999	1000-up
2N1248	TI	21FX5965	24.25	17.25	....
2N1251	SYL	20F4585	1.00	.67	....
2N1252	RAY	21FX9689	6.90	4.55	....
2N1252	TI	21FX5680	7.00	4.65	....
2N1253	RAY	21FX9690	11.95	7.95	....
2N1253	TI	21FX5681	11.95	7.95	....
2N1254	HUG	21FX7840	7.80	5.85	....
2N1255	HUG	21FX7841	10.27	7.70	....
2N1256	HUG	21FX7842	12.67	9.50	....
2N1257	HUG	21FX7843	12.67	9.50	....
2N1258	HUG	21FX7844	13.00	9.75	....
2N1259	HUG	21FX7845	12.85	9.64	....
2N1273	TI	21FX5542	.67	.44	....
2N1274	TI	21FX5536	.69	.46	....
2N1276	TI	21FX5966	3.85	2.55	....
2N1277	GE	21FX3426	4.25	2.84	....
2N1277	TI	20F5290	4.25	2.84	....
2N1278	GE	21FX3427	4.75	3.15	....
2N1278	TI	20F5291	4.75	3.15	....
2N1279	GE	21FX3428	5.60	3.70	....
2N1279	TI	20F5292	5.60	3.70	....
2N1292	SYL	21FX4861	10.05	6.70	....
2N1294	SYL	20F4586	13.10	8.75	....
2N1296	SYL	20F4642	17.60	11.75	....
2N1300	RCA	21F7032	1.16	.77	....
2N1300	TI	20F5233	1.84	1.21	....
2N1301	TI	20F5234	2.50	1.67	....
2N1301	RCA	21F7033	1.65	1.00	....
2N1302	RCA	20F7054	.58	.39	....
2N1302	TI	21F5330	.50	.33	....
2N1302	GE	20F3128	.49	.33	....
2N1303	GE	20F3129	.49	.33	....
2N1303	RCA	20F7055	.58	.39	....
2N1303	TI	21F5331	.50	.33	....
2N1304	RCA	20F7056	.76	.51	....
2N1304	TI	21F5332	.61	.41	....
2N1304	GE	21FX3579	.61	.41	....
2N1305	RCA	20F7057	.76	.51	....
2N1305	TI	21F5333	.61	.41	....
2N1305	GE	20F3130	.61	.41	....
2N1306	RCA	20F7058	1.11	.74	....
2N1306	TI	21F5334	.80	.53	....
2N1306	GE	21FX3580	1.11	.74	....
2N1307	RCA	20F7059	1.11	.74	....
2N1307	TI	21F5335	.80	.53	....
2N1307	GE	20F3131	1.11	.74	....
2N1308	RCA	20F7060	1.57	1.04	....
2N1308	GE	21FX3581	1.64	1.09	....
2N1308	TI	21F5336	1.12	.74	....
2N1309	RCA	21FX7222	1.57	1.04	....
2N1309	TI	21F5337	1.12	.74	....
2N1319	RCA	20F7008	1.65	1.10	....
2N1321	SYL	20F4644	10.10	6.75	....
2N1323	SYL	20F4645	13.10	8.75	....
2N1325	SYL	20F4646	17.25	11.50	....
2N1358	RCA	21FX7196	9.16	6.10	....
2N1358	MOT	21FX3884	16.50	11.00	....
2N1359	MOT	20F4048	2.25	1.50	....
2N1360	MOT	20F4049	2.30	1.55	....
2N1362	MOT	20F4050	5.00	3.35	....
2N1363	MOT	20F4051	5.30	3.55	....
2N1364	MOT	20F4052	15.00	10.00	....
2N1365	MOT	20F4053	18.00	12.00	....
2N1370	TI	21FX5543	.72	.48	....
2N1371	TI	21FX5535	1.14	.76	....
2N1372	TI	21FX5544	.82	.54	....
2N1373	TI	21FX5545	1.20	.80	....
2N1374	TI	21FX5546	1.02	.68	....
2N1375	TI	21FX5547	1.39	.92	....
2N1376	TI	21FX5548	1.29	.86	....
2N1377	TI	21FX5549	1.50	1.00	....
2N1378	TI	21FX5593	1.29	.86	....
2N1379	TI	21FX5594	1.44	.96	....
2N1380	TI	21FX5595	.67	.44	....
2N1381	TI	21FX5596	.72	.48	....
2N1382	TI	21FX5597	.99	.66	....
2N1383	TI	21FX5598	.92	.61	....
2N1384	RCA	20F7009	2.06	1.38	....
2N1389	RAY	21FX9650	27.00	18.00	....
2N1395	AMP	21FX2664	1.70	1.12	....
2N1395	SYL	20F4647	2.10	1.40	....
2N1395	RCA	21FX7148	1.73	1.16	....
2N1396	AMP	21FX2665	2.10	1.40	....
2N1396	RCA	21FX7149	2.15	1.43	....
2N1396	SYL	21FX4869	3.64	2.43	....
2N1397	AMP	21FX2666	3.10	2.06	....
2N1397	RCA	21FX7150	3.14	2.09	....
2N1398	TI	21FX5666	10.50	7.00	....
2N1399	TI	21FX5667	8.25	5.50	....
2N1400	TI	21FX5668	4.74	3.16	....
2N1401	TI	21FX5669	4.74	3.16	....
2N1401A	TI	21FX5670	6.60	4.40	....
2N1402	TI	21FX5671	4.38	2.92	....
2N1404	TI	21FX5689	.63	.42	....
2N1405	TI	21FX5690	11.80	7.90	....
2N1406	TI	21FX5691	7.30	4.88	....
2N1407	TI	21FX5692	6.95	4.65	....
2N1409	RAY	21FX9713	7.25	4.85	....
2N1410	RAY	21FX9714	7.65	5.10	....
2N1412	MOT	20F4055	14.25	9.50	....
2N1412	RCA	21FX7197	8.48	5.65	....
2N1413	GE	21FX3582	.80	.53	....
2N1413	MOT	20F4325	.80	.53	....
2N1414	GE	21FX3583	.83	.55	....
2N1414	MOT	20F4326	.82	.55	....
2N1415	GE	21FX3584	1.00	.66	....
2N1415	MOT	20F4327	.99	.66	....
2N1425	RCA	21FX7223	.86	.57	....
2N1426	RCA	21FX7224	.89	.59	....
2N1427	SPR	21F8221	4.55	3.35	....
2N1429	SPR	21F8205	6.00	4.45	....
2N1431	SYL	21FX4811	1.12	.86	....
2N1432	SYL	21FX4812	2.41	1.61	....
2N1450	RCA	21FX7225	2.06	1.38	....
2N1468	RAY	21FX9651	36.00	24.00	....
2N1470	RAY	21FX9663	57.00	38.00	....
2N1479	RCA	21FX7125	4.62	3.08	....
2N1480	RCA	21FX7157	5.78	3.85	....
2N1481	RCA	21FX7158	6.93	4.62	....
2N1482	RCA	21FX7213	8.25	5.50	....
2N1483	RCA	21FX7159	8.25	5.50	....
2N1484	RCA	21FX7160	9.90	6.60	....
2N1485	RCA	21FX7161	12.38	8.25	....
2N1486	RCA	21FX7145	19.80	13.00	....
2N1487	RCA	21FX7162	12.38	8.25	....
2N1488	RCA	21FX7163	14.03	9.35	....
2N1489	RCA	21FX7214	17.33	11.25	....
2N1490	RCA	21FX7139	33.00	22.00	....
2N1491	RCA	21FX7168	6.60	4.40	....
2N1492	RCA	21FX7169	9.90	6.60	....
2N1493	RCA	21FX7170	14.85	9.90	....
2N1500/ 18	SYL	20F4649	6.38	4.68	....
2N1507	RAY	21FX9701	7.90	5.30	....
2N1507	TI	21FX5679	7.95	5.25	....
2N1510	GE	21FX3585	2.40	1.60	....
2N1511	RCA	21FX7164	12.38	8.25	....
2N1512	RCA	21FX7165	14.08	9.35	....
2N1513	RCA	21FX7166	17.33	11.55	....
2N1514	RCA	21FX7167	36.30	24.20	....
2N1515	AMP	21FX2610	1.26	.84	....
2N1516	AMP	21FX2611	1.65	1.11	....
2N1517	AMP	21FX2612	1.84	1.23	....
2N1524	RCA	20F7015	.68	.45	....
2N1525	RCA	21FX7144	.68	.45	....
2N1526	RCA	20F7016	.71	.47	....
2N1527	RCA	21FX7226	.71	.47	....
2N1529	MOT	20F4038	1.95	1.30	....
2N1529A	MOT	20F4432	2.70	1.80	....
2N1530	MOT	20F4039	2.00	1.35	....
2N1530A	MOT	20F4433	2.75	1.85	....
2N1531	MOT	20F4040	3.05	2.05	....
2N1531A	MOT	20F4434	3.80	2.55	....
2N1532	MOT	20F4041	4.35	2.90	....
2N1532A	MOT	20F4435	5.10	3.40	....
2N1533	MOT	20F4042	7.85	5.25	....
2N1534	MOT	21FX3818	2.00	1.35	....
2N1534A	MOT	20F4436	2.75	1.85	....
2N1535	MOT	21FX3819	2.10	1.40	....
2N1535A	MOT	20F4437	2.85	1.90	....
2N1536	MOT	21FX3820	3.20	2.15	....
2N1536A	MOT	20F4438	3.95	2.65	....
2N1537	MOT	21FX3821	4.65	3.10	....
2N1537A	MOT	20F4439	5.40	3.60	....
2N1538	MOT	21FX3822	9.15	6.10	....
2N1539	MOT	20F4043	2.10	1.40	....
2N1539A	MOT	20F4440	2.85	1.90	....
2N1540	MOT	20F4044	2.15	1.44	....
2N1540A	MOT	20F4441	2.90	1.94	....
2N1541	MOT	20F4045	3.75	2.15	....
2N1542	MOT	20F4046	4.80	3.20	....
2N1543	MOT	20F4047	10.40	6.95	....
2N1544	MOT	21FX3823	2.15	1.44	....
2N1544A	MOT	20F4442	2.90	1.94	....
2N1545	MOT	21FX3824	2.60	1.75	....
2N1545A	MOT	20F4443	3.30	2.25	....
2N1546	MOT	21FX3825	3.95	2.65	....
2N1546A	MOT	20F4444	4.70	3.15	....
2N1547	MOT	21FX3826	5.70	3.80	....
2N1548	MOT	21FX3827	6.45	4.30	....
2N1549	MOT	21FX3828	3.45	2.30	....
2N1550	MOT	21FX3829	4.35	3.90	....
2N1551	MOT	21FX3830	6.90	4.60	....
2N1551A	MOT	20F4445	6.90	4.60	....
2N1552	MOT	21FX3831	9.75	6.50	....
2N1552A	MOT	20F4446	9.50	6.35	....
2N1553	MOT	20F4370	2.70	1.80	....
2N1553A	MOT	20F4447	3.45	2.30	....
2N1554	MOT	20F4371	3.20	2.15	....
2N1554A	MOT	20F4448	3.95	2.65	....
2N1555	MOT	21FX3869	5.25	3.50	....
2N1555A	MOT	20F4449	6.00	4.00	....
2N1556	MOT	21FX3882	6.45	4.30	....
2N1556A	MOT	20F4450	7.20	4.80	....
2N1556A	TI	21FX5967	10.35	6.90	....
2N1557	MOT	21FX3832	3.60	2.40	....
2N1557A	MOT	20F4451	3.95	2.65	....
2N1558	MOT	21FX3833	5.40	3.60	....
2N1559	MOT	21FX3834	8.10	5.40	....
2N1560	MOT	21FX3835	12.75	8.50	....
2N1560A	MOT	20F4452	8.70	5.80	....
2N1561	MOT	21FX4450	21.75	14.50	....
2N1562	MOT	21FX3816	14.25	9.50	....
2N1564	TI	21F5340	10.35	6.90	....
2N1565	TI	21F5341	10.35	6.90	....
2N1566	TI	21F5342	10.35	6.90	....
2N1572	TI	21FX5782	12.60	8.40	....
2N1573	TI	21FX5783	12.75	8.55	....
2N1574	TI	21FX5784	13.65	9.15	....
2N1586/ J-503	TI	21FX5650	6.20	4.15	....
2N1587/ J-504	TI	21FX5651	7.15	4.75	....
2N1588/ J-505	TI	21FX5652	8.05	5.35	....
2N1589/ J-506	TI	21FX5653	6.95	4.65	....
2N1590/ J-507	TI	21FX5654	8.10	5.40	....
2N1591/ J-508	TI	21FX5655	9.15	6.10	....
2N1592/ J-509	TI	21FX5656	7.75	5.15	....
2N1593/ J-510	TI	21FX5657	9.05	6.05	....
2N1594/ J-511	TI	21FX5658	10.30	6.85	....
2N1595	TI	21FX5603	6.15	4.10	....
2N1595	GE	20F3116	7.65	5.10	....
2N1595	HOF	20F2287	7.65	5.10	....
2N1596	TI	21FX5604	10.65	7.10	....
2N1596	GE	20F3117	10.65	7.10	....
2N1596	HOF	20F2288	10.65	7.10	....
2N1597	GE	20F3118	15.00	10.00	....
2N1597	TI	21FX5605	15.00	10.00	....
2N1597	HOF	20F2289	15.00	10.00	....
2N1598	TI	21FX5662	22.00	14.65	....
2N1598	GE	20F3119	22.50	15.00	....
2N1598	HOF	20F2290	25.50	17.00	....
2N1599	GE	20F3120	37.50	25.00	....
2N1599	TI	21FX5663	31.00	20.75	....
2N1599	HOF	20F2291	36.00	24.00	....
2N1604	TI	21FX5697	31.00	20.75	....
2N1605	GE	20F3422	1.25	.83	....
2N1605	RAY	20F9518	2.16	1.20	....
2N1605	TI	20F5261	1.09	.72	....
2N1605	RCA	20F7061	1.24	.83	....
2N1605A	RCA	20F7062	1.50	1.00	....
2N1613	TI	21FX5991	13.10	8.75	....
2N1613	GE	20F3218	13.10	8.75	....
2N1613	HUG	20F7710	12.67	9.50	....
2N1613	RCA	21FX7227	7.01	4.68	....
2N1614	GE	21FX3586	2.50	1.65	....
2N1623	RAY	21FX9653	2.16	1.65	....
2N1631	RCA	21FX7230	.74	.50	....
2N1632	RCA	21FX7229	.74	.50	....
2N1633	RCA	21FX7228	1.24	.83	....
2N1634	RCA	20F7017	1.24	.83	....
2N1635	RCA	21FX7231	1.32	.88	....
2N1636	RCA	20F7018	1.32	.88	....
2N1637	RCA	20F7019	.88	.57	....
2N1638	RCA	20F7020	.76	.51	....
2N1639	RCA	20F7021	.81	.54	....
2N1646	SYL	21FX4874	6.00	4.00	....
2N1651	BEN	21FX6218	9.00	6.00	....
2N1652	BEN	21FX6219	18.00	12.00	....
2N1653	BEN	21FX6220	29.25	19.50	....
2N1654	RAY	21FX9674	10.65	8.20	....
2N1657	RAY	21FX9664	57.00	38.00	....
2N1660	RAY	21FX9627	60.00	40.00	....
2N1666/ OC28	AMP	21FX2606	4.80	3.75	....
2N1667/ OC29	AMP	21FX2607	4.60	3.50	....
2N1668/ OC35	AMP	21FX2608	5.70	4.30	....
2N1669/ OC36	AMP	21F2609	1.68	1.12	....
2N1671	GE	21FX3594	2.95	1.98	....
2N1671	TI	20F5293	2.95	1.98	....
2N1671A	GE	21FX3595	3.20	2.14	....
2N1671A	TI	20F5294	3.55	2.36	....
2N1671B	GE	21FX3561	3.55	2.36	....
2N1671B	TI	20F5295	3.55	2.14	....
2N1673	SYL	21FX4870	2.85	1.90	....
2N1676	SPR	21F8206	4.35	3.25	....
2N1677	SPR	21F8207	3.95	2.95	....
2N1683	RCA	20F7010	2.06	1.38	....

SEMICONDUCTOR DIRECTORY

Type	Mfr.	Stock No.	1-99	100-999	
2N1690	TI	21FX5686	28.10	18.70	....
2N1691	TI	21FX5687	40.80	27.20	....
2N1692	MOT	21FX3815	22.50	17.00	....
2N1693	MOT	21FX3817	18.00	12.00	....
2N1694	GE	20F3132	.99	.66	....
2N1699	SYL	21FX4871	37.50	25.00	....
2N1700	RCA	21FX7207	4.13	2.75	....
2N1701	RCA	21FX7208	7.01	4.68	....
2N1702	RCA	21FX7209	10.73	7.15	....
2N1703	RCA	21FX7210	11.14	7.43	....
2N1708	RCA	21FX7232	4.79	3.19	....
2N1711	TI	20F5262	15.75	10.50	....
2N1711	RCA	20F7073	7.01	4.68	....
2N1711	GE	20F3219	15.75	10.75	....
2N1714	TI	21FX5769	17.40	11.40	....
2N1715	TI	21FX5770	22.95	15.30	....
2N1716	TI	21FX5771	19.45	12.95	....
2N1717	TI	20F5006	25.50	17.00	....
2N1718	TI	21FX5772	17.95	11.95	....
2N1719	TI	21FX5773	23.75	15.85	....
2N1720	TI	21FX5774	20.25	13.50	....
2N1721	TI	20F5007	26.40	17.60	....
2N1722	TI	21FX5775	67.25	44.75	....
2N1724	TI	21FX5817	69.00	46.00	....
2N1768	RCA	21FX7200	12.38	8.25	....
2N1769	RCA	21FX7201	19.80	13.20	....
2N1770	GE	21FX3437	6.15	4.10	....
2N1770	TI	20F5414	6.15	4.10	....
2N1770A	GE	21FX3436	6.75	4.50	....
2N1771	GE	21FX3438	7.65	5.10	....
2N1771	TI	20F5415	7.65	5.10	....
2N1771A	GE	21FX3433	8.40	5.60	....
2N1772	GE	21FX3439	10.70	7.10	....
2N1772	TI	20F5416	10.70	7.10	....
2N1772A	GE	21FX3429	11.70	7.80	....
2N1773	GE	21FX3440	13.20	8.80	....
2N1773	TI	20F5417	13.20	8.80	....
2N1773A	GE	21FX3434	14.70	9.80	....
2N1774	GE	21FX3441	15.00	10.00	....
2N1774	TI	20F5418	15.00	10.00	....
2N1774A	GE	21FX3430	16.70	11.10	....
2N1775	GE	21FX3442	18.00	12.00	....
2N1775	TI	20F5419	18.00	12.00	....
2N1775A	GE	21FX3435	22.50	15.00	....
2N1776	GE	21FX3448	22.00	14.65	....
2N1776	TI	20F5420	22.00	14.65	....
2N1776A	GE	21FX3431	27.75	18.50	....
2N1777	GE	21FX3444	31.00	20.75	....
2N1777	TI	20F5421	31.00	20.75	....
2N1777A	GE	21FX3432	39.00	26.00	....
2N1778	TI	20F5422	41.25	27.50	....
2N1808	TI	20F5008	.67	.44	....

Type	Mfr.	Stock No.	1-24	25-99	
2N1809	WES	21F9971	68.00	57.00	....
2N1810	WES	21F9972	116.00	97.00	....
2N1811	WES	21F9973	136.00	114.00	....
2N1812	WES	21F9974	152.00	127.00	....
2N1816	WES	21F9975	90.00	75.00	....
2N1817	WES	21F9976	154.00	129.00	....
2N1818	WES	21F9977	180.00	150.00	....
2N1823	WES	21F9978	136.00	114.00	....
2N1824	WES	21F9979	190.00	159.00	....
2N1825	WES	21FX9990	224.00	187.00	....
2N1826	WES	21FX9991	252.00	210.00	....

Type	Mfr.	Stock No.	1-99	100-999	
2N1842	GE	21FX3333	9.80	6.55	....
2N1842	TI	20F5425	9.80	6.55	....
2N1842A	TI	20F5426	9.80	6.55	....
2N1842B	TI	20F5319	9.80	6.55	....
2N1843	GE	21FX3334	10.40	6.95	
2N1843	TI	20F5427	10.40	6.95	....
2N1843A	TI	20F5428	10.40	6.95	....
2N1843B	TI	20F5320	10.40	6.95	....
2N1844	TI	20F5429	11.90	7.90	....
2N1844A	TI	20F5430	11.90	7.90	....
2N1844B	TI	20F5321	11.90	7.90	....
2N1844/ C36A	GE	21FX3335	11.90	7.90	....
2N1845	GE	21FX3336	14.10	9.40	....
2N1845	TI	20F5431	14.10	9.40	....
2N1845A	TI	20F5432	14.10	9.40	....
2N1845B	TI	20F5322	14.10	9.40	....
2N1846/ C36B	GE	21FX3337	15.40	11.25	....
2N1846	TI	20F5433	15.40	11.25	....
2N1846A	TI	20F5434	15.40	11.25	
2N1846B	TI	20F5323	15.40	11.25	....
2N1847/ C36H	GE	21FX3338	20.85	13.90	
2N1847	TI	20F5435	20.85	13.90	....
2N1847A	TI	20F5436	20.85	13.90	....
2N1847B	TI	20F5324	20.85	13.90	....
2N1848/ C36C	GE	21FX3339	24.75	16.50	....

Type	Mfr.	Stock No.	1-99	100-999	
2N1848	TI	20F5437	24.75	16.50	....
2N1848A	TI	20F5438	24.75	16.50	....
2N1848B	TI	20F5325	24.75	16.50	....
2N1849/ C36D	GE	21FX3340	33.00	22.00	....
2N1849	TI	20F5439	33.00	22.00	....
2N1849A	TI	20F5440	33.00	22.00	....
2N1849B	TI	20F5326	33.00	22.00	....
2N1850/ C36E	GE	20F3153	40.50	27.00	....
2N1850	TI	20F5441	40.50	27.00	....
2N1850A	TI	20F5442	40.50	27.00	....
2N1850B	TI	20F5327	40.50	27.00	....
2N1853	RCA	20F7075	1.49	.99	....
2N1854	RCA	20F7076	1.98	1.32	....
2N1889	TI	20F5264	15.45	10.30	....
2N1890	TI	20F5265	18.45	12.30	....
2N1893	GE	20F3220	17.10	11.40	....
2N1893	HUG	20F7711	17.10	12.83	....
2N1893	TI	20F5263	17.10	11.40	....
2N1894	RAY	20F9513	45.00	30.00	....
2N1895	RAY	20F9514	36.00	24.00	....
2N1896	RAY	20F9515	60.00	40.00	....
2N1897	RAY	20F9516	67.50	45.00	....
2N1898	RAY	20F9517	90.00	60.00	....
2N1905	RCA	21FX7198	4.13	2.75	....
2N1906	RCA	21FX7199	6.60	4.40	....
2N1907	TI	21FX5809	9.00	6.00	....
2N1908	TI	21FX5810	13.00	8.70	....

Type	Mfr.	Stock No.	1-24	25-99	
2N1909/ C50U	GE	21FX3539	28.70	21.50	....
2N1910	WES	21FX9954	40.00	30.00	....
2N1910/ C50F	GE	21FX3540	40.00	30.00	....
2N1911	WES	21FX9955	50.00	38.00	....
2N1911/ C50A	GE	21FX3541	50.00	38.00	....
2N1912	WES	21FX9956	65.00	50.00	....
2N1912/ C50G	GE	21FX3542	65.00	50.00	....
2N1913	WES	21FX9957	70.00	54.00	....
2N1913/ C50B	GE	21FX3543	70.00	54.00	....
2N1914	WES	21FX9958	88.00	67.00	....
2N1914/ C50H	GE	21FX3544	88.00	67.50	....
2N1915	WES	21FX9959	105.00	80.00	....
2N1915/ C50C	GE	20F3154	105.00	80.00	....
2N1916	WES	21FX9980	145.00	110.00	....
2N1916/ C50D	GE	20F3155	145.00	111.00	....

Type	Mfr.	Stock No.	1-99	100-999	
2N1924	GE	20F3133	1.90	1.25	....
2N1924	MOT	20F4328	1.87	1.25	....
2N1925	GE	20F3134	2.10	1.40	....
2N1925	MOT	20F4329	2.10	1.40	....
2N1926	MOT	20F4330	2.47	1.65	....
2N1926	GE	20F3135	2.45	1.65	....
2N1929	TI	20F5404	6.15	4.10	....
2N1929	GE	21FX3550	6.15	4.10	....
2N1930	TI	20F5405	7.65	5.10	....
2N1930	GE	21FX3551	7.65	5.10	....
2N1931	TI	20F5406	10.65	7.10	....
2N1931	GE	21FX3552	10.70	7.10	....
2N1932	TI	20F5407	13.25	8.80	....
2N1932	GE	21FX3553	13.20	8.80	....
2N1933	TI	20F5408	15.00	10.00	....
2N1933	GE	21FX3554	15.00	10.00	....
2N1934	TI	20F5409	18.00	12.00	....
2N1934	GE	20F3114	18.00	12.00	....
2N1935	TI	20F5410	22.00	14.65	....
2N1935	GE	20F3115	22.00	14.65	....

Type	Mfr.	Stock No.	1-24	25-99	100-up
2N1936	TI	21FX5881	130.00	112.00	88.00
2N1937	TI	21FX5882	172.00	150.00	115.00

Type	Mfr.	Stock No.	1-99	100-up	
2N1954	RAY	20F9519	1.80	1.20	....
2N1955	RAY	20F9520	1.95	1.30	....
2N1956	RAY	20F9521	2.18	1.45	....
2N1957	RAY	20F9522	2.70	1.80	....
2N1958	SYL	20F4573	6.00	4.00	....
2N1958/ 18	SYL	20F4653	6.16	4.11	....
2N1959	SYL	20F4574	6.16	4.11	....
2N1959/ 18	SYL	20F4654	6.33	4.22	....
2N1960	SYL	20F4575	15.00	10.00	....
2N1961	SYL	20F4576	8.25	5.50	....
2N1962	SYL	21FX4882	24.75	16.50	....
2N1963	SYL	21FX4883	24.75	16.50	....

Type	Mfg.	Stock No.	1-99	100-999	
2N1964	SYL	21FX4884	24.00	16.00	....
2N1965	SYL	21FX4885	24.00	16.00	....
2N1983	RAY	21FX9702	6.30	4.85	....
2N1984	RAY	21FX9703	4.30	3.31	....
2N1985	RAY	21FX9704	3.30	2.54	....
2N1986	RAY	21FX9705	4.60	3.54	....
2N1987	RAY	21FX9706	4.15	3.20	....
2N1988	RAY	21FX9707	6.65	5.12	....
2N1989	RAY	21FX9708	4.35	3.35	....
2N1990	RAY	21FX9709	3.60	2.75	....
2N1990	SYL	21FX4886	3.60	2.40	....
2N1991	HUG	20F7716	4.25	3.19	....
2N1994	TI	21FX5889	2.32	1.55	....
2N1995	TI	21FX5890	3.77	2.50	....
2N1996	TI	21FX5891	5.16	3.43	....
2N1997	TI	21FX5892	1.98	1.31	....
2N1998	TI	21FX5893	2.55	1.70	....
2N1999	TI	21FX5894	3.45	2.29	....
2N2000	TI	21FX5895	3.00	2.00	....
2N2001	TI	21FX5896	2.75	1.83	....
2N2015	RCA	20F7022	37.95	25.30	....
2N2016	RCA	20F7023	46.20	30.80	....
2N2017	GE	20F3191	8.35	5.55	....

Type	Mfr.	Stock No.	1-24	25-99	
2N2023/ C60U	GE	20F3165	33.00	24.70	....
2N2024/ C60F	GE	20F3166	46.00	34.50	....
2N2025/ C60A	GE	20F3167	57.50	43.70	....
2N2026/ C60G	GE	20F3168	74.75	57.50	....
2N2027/ C60B	GE	20F3169	80.50	62.00	....
2N2028/ C60H	GE	20F3170	101.00	77.60	....
2N2029/ C60C	GE	20F3171	120.00	92.00	....

Type	Mfr.	Stock No.	1-99	100-999	
2N2042	MOT	20F4021	1.85	1.25	....
2N2043	MOT	20F4022	2.25	1.50	....
2N2049	GE	20F3414	24.00	16.00	....
2N2060	WES	21FX9710	60.00	40.00	....
2N2075	MOT	20F4274	8.25	5.50	....
2N2075A	MOT	20F4453	9.00	6.00	....
2N2076	MOT	20F4275	4.50	3.00	....
2N2076A	MOT	20F4454	5.25	3.50	....
2N2077	MOT	20F4276	3.50	2.35	....
2N2078	MOT	20F4277	2.60	1.75	....
2N2078A	MOT	20F4455	3.35	2.25	....
2N2079	MOT	20F4278	10.10	6.75	....
2N2079A	MOT	20F4456	10.85	7.25	....
2N2080	MOT	20F4279	5.90	3.95	....
2N2080A	MOT	20F4457	6.65	4.45	....
2N2081	MOT	20F4280	3.80	2.55	....
2N2082	MOT	20F4281	3.20	2.15	....
2N2102	RCA	20F7040	8.25	5.50	....
2N2106	GE	20F3192	3.70	2.45	....
2N2107	GE	20F3193	4.20	2.80	....
2N2108	GE	20F3194	4.35	2.90	....
2N2137	MOT	20F4290	1.80	1.20	....
2N2137A	MOT	20F4291	2.55	1.70	....
2N2138	MOT	20F4292	2.10	1.40	....
2N2138A	MOT	20F4293	2.85	1.90	....
2N2139	MOT	20F4294	2.25	1.50	....
2N2139A	MOT	20F4295	3.00	2.00	....
2N2140	MOT	20F4296	3.90	2.60	....
2N2140A	MOT	20F4297	4.65	3.10	....
2N2141	MOT	20F4298	7.85	5.25	....
2N2141A	MOT	20F4299	8.60	5.75	....
2N2142	MOT	20F4300	2.30	1.55	....
2N2142A	MOT	20F4301	3.05	2.05	....
2N2143	MOT	20F4302	2.45	1.65	....
2N2143A	MOT	20F4303	3.20	2.15	....
2N2144	MOT	20F4304	3.75	2.15	....
2N2144A	MOT	20F4305	4.50	3.00	....
2N2145	MOT	20F4306	4.50	3.00	....
2N2145A	MOT	20F4307	5.25	3.50	....
2N2146	MOT	20F4308	8.60	5.75	....
2N2146A	MOT	20F4309	9.35	6.25	....
2N2150	TI	20F5254	35.85	23.90	....
2N2151	TI	20F5255	39.75	26.50	....
2N2152	MOT	20F4362	3.60	2.40	....
2N2152A	MOT	20F4460	5.34	2.90	....
2N2153	MOT	20F4363	5.55	3.70	....
2N2153A	MOT	20F4461	6.30	4.20	....
2N2154	MOT	20F4364	10.10	6.75	....
2N2154A	MOT	20F4462	10.85	7.25	....
2N2155	MOT	20F4365	15.35	10.25	....
2N2155A	MOT	20F4463	16.10	10.75	....
2N2156	MOT	20F4366	4.10	2.75	....
2N2156A	MOT	20F4464	4.85	3.25	....
2N2157	MOT	20F4367	6.35	4.25	....

See Pages 25 to 69 for Complete Listings of Semiconductors by Mfrs.

Type	Mfr.	Stock No.	1-99	100-999	1000-up
2N2157A	MOT	20F4465	7.10	4.75	....
2N2158	MOT	20F4368	10.85	7.25	....
2N2159	MOT	20F4369	16.25	10.85	....
2N2159A	MOT	20F4466	17.00	11.35	....
2N2160	GE	20F3417	1.49	.99	....
2N2160	TI	20F5296	2.50	1.68	....
2N2084	AMP	21FX2667	2.10	1.39	....
2N2188	TI	20F5205	1.27	.85	....
2N2089	AMP	21FX2668	1.00	.67	....
2N2189	TI	20F5206	1.64	1.09	....
2N2190	TI	20F5207	1.47	.98	....
2N2090	AMP	21FX2669	1.00	.67	....
2N2091	AMP	21FX2670	1.00	.67	....
2N2191	TI	20F5208	1.86	1.23	....
2N2192	GE	20F3221	18.00	12.00	....
2N2092	AMP	21FX2671	.83	.55	....
2N2093	AMP	21FX2672	.83	.55	....
2N2192A	GE	20F3222	19.50	13.00	....
2N2193	GE	20F3212	15.40	10.25	....
2N2193A	GE	20F3213	16.90	11.25	....
2N2194	GE	20F3214	7.90	5.25	....
2N2194A	GE	20F3215	10.10	6.75	....
2N2195	GE	20F3216	5.25	3.50	....
2N2195A	GE	20F3217	7.90	5.25	....
2N2196	GE	20F3415	7.00	4.70	....
2N2197	GE	20F3416	7.70	5.10	....
2N2201	GE	20F3253	14.05	9.35	....
2N2202	GE	20F3258	13.20	8.95	....
2N2203	GE	20F3263	13.30	8.85	....
2N2204	GE	20F3268	15.55	10.35	....
2N2205	RCA	20F7063	4.95	3.30	....
2N2206	RCA	21FX7235	5.78	3.85	....
2N2217	MOT	20F4288	5.85	3.90	....
2N2218	MOT	20F4287	5.85	3.90	....
2N2219	MOT	20F4289	6.75	4.50	....
2N2220	MOT	20F4333	5.85	3.90	....
2N2221	MOT	20F4334	5.85	3.90	....
2N2222	MOT	20F4335	6.75	4.50	....

Type	Mfr.	Stock No.	1-24	25-99	100-up
2N2226	WES	21FX9992	66.00	55.00	....
2N2227	WES	21FX9993	104.00	87.00	....
2N2228	WES	21FX9994	126.00	105.00	....
2N2230	WES	21FX9995	122.00	104.00	....
2N2231	WES	21RX9996	176.00	147.00	....
2N2232	WES	21FX9997	222.00	185.00	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
2N2256	MOT	20F4359	1.12	.75	....
2N2257	MOT	20F4350	1.29	.85	....
2N2258	MOT	20F4346	1.12	.75	....
2N2259	MOT	20F4347	1.29	.85	....
2N2270	RCA	20F7050	3.71	2.48	....
2N2282	BEN	21FX6224	6.00	4.00	....
2N2283	BEN	21FX6225	7.50	5.00	....
2N2284	BEN	21FX6226	10.00	7.50	....
2N2294	BEN	21FX6250	3.38	2.25	....
2N2295	BEN	21FX6227	7.35	4.90	....
2N2296	BEN	21FX6251	11.85	7.90	....
2N2322	GE	20F3107	6.75	4.50	....
2N2323	GE	20F3108	8.40	5.60	....
2N2324	GE	20F3109	11.70	7.80	....
2N2325	GE	20F3110	13.50	9.00	....
2N2326	GE	20F3111	16.50	11.00	....
2N2327	GE	20F3112	18.50	13.00	....
2N2328	GE	20F3113	27.50	16.50	....
2N2329	GE	20F3437	41.25	27.50	....
2N2330	MOT	20F4337	14.62	9.75	....
2N2331	MOT	20F4338	14.62	9.75	....
2N2338	RCA	20F7070	24.75	16.50	....
2N2339	RCA	20F7071	7.01	4.68	....
2N2344	GE	20F3438	8.10	5.40	....
2N2345	GE	20F3439	10.00	6.50	....
2N2346	GE	20F3440	14.10	9.40	....
2N2347	GE	20F3441	16.50	11.00	....
2N2348	GE	20F3442	19.80	13.20	....
2N2354	SYL	21FX4862	.92	.61	....
2N2357	BEN	21FX6252	11.00	7.50	....
2N2358	BEN	21FX6228	21.00	14.00	....
2N2359	BEN	21FX6249	37.50	25.00	....
2N2363	TI	20F5241	4.50	3.00	....
2N2386	TI	20F5256	37.50	25.00	....
2N2387	TI	20F5136	18.40	12.25	....
2N2388	TI	20F5137	29.95	19.95	....
2N2389	TI	20F5196	19.50	13.00	....
2N2390	TI	20F5197	33.65	15.75	....
2N2391	TI	20F5140	36.00	24.00	....
2N2392	TI	20F5198	45.00	30.00	....
2N2393	TI	20F5141	12.10	8.05	....
2N2394	TI	20F5142	35.20	23.45	....
2N2395	TI	20F5145	22.00	14.50	....
2N2396	TI	20F5146	26.50	17.50	....
2N2397	TI	20F5198	45.00	30.00	....
2N2397	SYL	21FX4887	20.00	15.00	....
2N2410	TI	20F5235	10.80	7.20	....
2N2411	TI	20F5236	18.00	12.00	....
2N2412	TI	20F5227	22.50	15.00	....
2N2413	TI	20F5238	11.55	7.70	....
2N2415	TI	20F5239	52.50	35.00	....
2N2416	TI	20F5240	37.50	25.00	....
2N2428	AMP	21FX2678	.62	.42	....
2N2429	AMP	21FX2679	.64	.43	....
2N2430	AMP	21FX2680	.72	.48	....
2N2431	AMP	21FX2681	.75	.50	....
2N2448	RAY	21FX9711	2.50	1.67	....
2N2450	RAY	21FX9712	3.00	2.00	....
2N2454	TI	20F5401	....	....	....
2N2455	SYL	20F4655	4.50	3.00	....
2N2456	SYL	21FX4878	22.50	15.00	....
2N2475	RCA	20F7078	8.17	5.45	....
2N2497	TI	21FX5944	44.63	29.75	....
2N2498	TI	21FX5945	36.75	24.50	....
2N2499	TI	21FX5946	47.25	31.50	....
2N2500	TI	21FX5947	68.00	52.95	....
2N2501	MOT	20F4351	8.25	5.50	....
2N2526	MOT	20F4356	7.10	4.75	....
2N2527	MOT	20F4357	9.30	6.20	....
2N2528	MOT	20F4358	14.85	9.90	....
2N2529	TI	21FX5968	5.23	3.49	....
2N2530	TI	21FX5969	5.23	3.49	....
2N2531	TI	21FX5970	5.67	3.79	....
2N2532	TI	21FX5971	6.26	4.17	....
2N2533	TI	21FX5972	5.57	3.71	....
2N2534	TI	21FX5973	5.90	3.93	....
2N2537	MOT	20F4352	6.65	4.45	....
2N2538	MOT	20F4353	7.40	4.95	....
2N2539	MOT	20F4354	6.65	4.45	....
2N2540	MOT	20F4355	7.40	5.95	....
¼M2.4AZ	MOT	20F4476	2.10	1.70	....
¼M2.4AZ5	MOT	20F4206	4.00	3.20	....
¼M2.7AZ	MOT	20F4477	2.10	1.70	....
¼M2.7AZ5	MOT	20F4207	4.00	3.20	....
¼M3.0AZ	MOT	20F4478	2.10	1.70	....
¼M3.0AZ5	MOT	20F4208	4.00	3.20	....
¼M3.3AZ	MOT	20F4479	2.10	1.70	....
¼M3.3AZ5	MOT	20F4209	4.00	3.20	....
¼M3.6AZ5	MOT	20F4261	4.00	3.20	....
¼M3.9AZ	MOT	20F4499	2.10	1.70	....
¼M3.9AZ5	MOT	20F4262	4.00	3.20	....
¼M4.3AZ	MOT	20F3700	4.00	1.70	....
¼M4.3AZ5	MOT	20F4263	2.10	3.20	....
¼M4.7AZ	MOT	20F3701	2.10	1.70	....
¼M4.7AZ5	MOT	20F4264	4.00	3.20	....
¼M5.1AZ5	MOT	20F4257	4.00	3.20	....
¼M5.6AZ	MOT	20F4480	2.10	1.70	....
¼M5.6AZ5	MOT	20F4258	4.00	3.20	....
¼M6.2AZ	MOT	20F4481	2.10	1.70	....
¼M6.2AZ5	MOT	20F4259	4.00	3.20	....
¼M6.8AZ	MOT	20F4482	2.10	1.70	....
¼M6.8AZ5	MOT	20F4260	4.00	3.20	....
¼M6.8Z5	MOT	21FX4400	4.00	3.20	....
¼M7.5Z	MOT	20F4483	2.10	1.70	....
¼M7.5Z5	MOT	21FX4401	4.00	3.20	....
¼M8.2Z	MOT	20F4484	2.10	1.70	....
¼M8.2Z5	MOT	21FX4402	4.00	3.20	....
¼M9.1Z	MOT	20F4485	2.10	1.70	....
¼M9.1Z5	MOT	21FX4403	4.00	3.20	....
¼M10Z	MOT	20F4486	2.10	1.70	....
¼M10Z5	MOT	21FX4404	4.00	3.20	....
¼M11Z5	MOT	21FX4405	4.00	3.20	....
¼M12Z5	MOT	21FX4406	4.00	3.20	....
¼M13Z5	MOT	21FX4407	4.00	3.20	....
¼M14Z5	MOT	21FX4408	4.00	3.20	....
¼M15Z	MOT	20F4487	2.10	1.70	....
¼M15Z5	MOT	21FX4409	4.00	3.20	....
¼M16Z5	MOT	21FX4410	4.00	3.20	....
¼M17Z5	MOT	21FX4411	4.00	3.20	....
¼M18Z5	MOT	21FX4412	4.00	3.20	....
¼M19Z5	MOT	21FX4413	4.00	3.20	....
¼M20Z	MOT	20F4488	2.10	1.70	....
¼M20Z5	MOT	21FX4414	4.00	3.20	....
¼M22Z	MOT	20F4489	2.10	1.70	....
¼M22Z5	MOT	21FX4415	4.00	3.20	....
¼M24Z5	MOT	21FX4416	4.00	3.20	....
¼M25Z5	MOT	21FX4417	4.00	3.20	....
¼M27Z5	MOT	21FX4418	4.00	3.20	....
¼M30Z5	MOT	21FX4419	4.35	3.50	....
¼M33Z5	MOT	21FX4420	4.35	3.50	....
¼M36Z5	MOT	21FX4421	4.35	3.50	....
¼M39Z	MOT	20F4490	2.80	2.25	....
¼M39Z5	MOT	21FX4422	4.35	3.50	....
¼M43Z5	MOT	21FX4423	4.35	3.50	....
¼M45Z5	MOT	21FX4424	4.35	3.50	....
¼M47Z5	MOT	21FX4425	4.35	3.50	....
¼M50Z5	MOT	21FX4426	4.35	3.50	....
¼M52Z5	MOT	21FX4427	4.35	3.50	....
¼M56Z	MOT	20F4491	2.85	2.25	....
¼M56Z5	MOT	21FX4428	4.35	3.50	....
¼M62Z5	MOT	21FX4429	4.35	3.50	....
¼M68Z	MOT	20F4492	2.85	2.25	....
¼M68Z5	MOT	21FX4430	4.35	3.50	....
¼M75Z	MOT	20F4493	2.80	2.25	....
¼75Z5	MOT	21FX4431	4.35	3.50	....
¼M82Z	MOT	20F4494	2.80	2.25	....
¼82Z5	MOT	21FX4432	4.35	3.50	....
¼91Z5	MOT	21FX4433	4.35	3.50	....
¼M100Z	MOT	20F4495	2.85	2.25	....
¼M100Z5	MOT	21FX4434	4.35	3.50	....
¼M105Z5	MOT	21FX4435	4.35	3.50	....
¼M110Z5	MOT	21FX4436	4.35	3.50	....
¼M120Z	MOT	20F4496	2.80	2.25	....
¼M120Z5	MOT	21FX4437	4.35	3.50	....
¼M130Z5	MOT	21FX4438	4.35	3.50	....
¼M140Z5	MOT	21FX4439	4.35	3.50	....
¼M150Z	MOT	20F4497	2.80	2.25	....
¼M150Z5	MOT	21FX4440	4.35	3.50	....
¼M175Z5	MOT	21FX4441	4.35	3.50	....
¼M200Z	MOT	20F4498	2.80	2.25	....
¼M200Z5	MOT	21FX4442	4.35	3.50	....

Type	Mfr.	Stock No.	1-24	25-99	100-up
1.5M14Z5	MOT	20F4223	7.40	6.95	5.55
1.5M17Z5	MOT	20F4226	7.40	6.95	5.55
1.5M19Z5	MOT	20F4228	7.40	6.95	5.55
1.5M25Z5	MOT	20F4283	7.40	6.95	5.55
1.5M45Z5	MOT	20F4239	7.40	6.95	5.55
1.5M50Z5	MOT	20F4241	7.40	6.95	5.55
1.5M52Z5	MOT	20F4242	7.40	6.95	5.55
1.5M105Z5	MOT	20F4249	8.90	8.35	6.70
1.5M140Z5	MOT	20F4253	8.90	8.35	6.70
1.5M175Z5	MOT	20F4255	9.35	8.00	7.05

Type	Mfr.	Stock No.	1-99	100-999	1000-up
2A	HOF	21F2145	7.50	6.00	....
2DG001	RCA	21FX7215	1.62	1.08	....
2F4-91	INT	20F1309	.70	....	....

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
2F4	SAR	21FX1566	.89	.85	.75	.63

Type	Mfr.	Stock No.	1-99	100-999	1000-up
3DG001	RCA	21FX7216	2.34	1.56	....
3N34	TI	21F5092	5.00	4.15	....
3N35	TI	21F5179	22.50	15.00	....
3N58	GE	20F3372	3.40	2.25	....
3N59	GE	20F3373	3.75	2.50	....
3N60	GE	20F3374	4.15	2.75	....
4C28	GE	20F3195	2.25	1.65	....
4C29	GE	20F3196	1.80	1.20	....
4C30	GE	20F3197	2.50	1.85	....
4C31	GE	20F3198	2.80	2.10	....
4D20	GE	20F3199	1.90	1.45	....
4D21	GE	20F3200	2.50	1.90	....
4D22	GE	20F3201	3.00	2.30	....
4D24	GE	20F3203	1.17	.78	....
4D25	GE	20F3204	1.26	.84	....
4D26	GE	20F3205	1.83	1.22	....
4JA10M	GE	20F3393	1.72	1.15	....
4JA10N	GE	20F3394	2.47	1.98	....
4JA10P	GE	20F3395	5.92	3.95	....
4JF2-BD-1	GE	20F3141	5.00	3.30	....
4JF2-BD-2	GE	20F3142	5.00	3.30	....
4JF2-BD-3	GE	20F3143	3.00	2.00	....
4JF2-BD-4	GE	20F3144	5.00	3.30	....
4JF2-BD-5	GE	20F3145	10.00	6.65	....
4JF2-BD-6	GE	20F3146	10.00	6.65	....
4JF2-BD-7	GE	20F3147	10.00	6.65	....
4X5.1B	GE	20F3423	4.45	2.95	....
4X5.6B	GE	20F3424	3.90	2.60	....
4X6.2B	GE	20F3425	3.90	2.60	....
4X6.8B	GE	20F3426	3.90	2.60	....
4X7.5B	GE	20F3427	3.90	2.60	....
4X8.2B	GE	20F3428	3.90	2.60	....
4X9.1B	GE	20F3429	3.90	2.60	....
4X10B	GE	20F3430	3.90	2.60	....
4X11B	GE	20F3431	3.90	2.60	....
4X12B	GE	20F3432	3.90	2.60	....
4X13B	GE	20F3433	3.90	2.60	....
4X14B	GE	20F3434	3.90	2.60	....
4X15B	GE	20F3435	3.90	2.60	....
4X16B	GE	20F3436	3.90	2.60	....
5A2	INT	20F1327	.73	.58	....
5A3	INT	20F8201	.79	.61	....
5A4	INT	20F1328	.88	.80	....
5A5	INT	20F1329	1.00	.90	....
5A6	INT	20F1330	1.15	.87	1.15
5A8	INT	20F8202	1.85	.60	....
5A10	INT	20F8203	2.25	2.10	....

Type	Mfr.	Stock No.	1-9	10-99	100-999
5E4	INT	21FX1345	.90	.75	....

See Pages 25 to 69 for Complete Listings of Semiconductors by Mfrs.

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Type	Mfr.	Stock No.	1-99	100-999	1000-up
5E6	INT	20F1311	1.20	.99	....
5MA5	INT	20F8210	1.25	.99	....
5MA6	INT	20F8211	1.70	1.35	....

Type	Mfr.	Stock No.	1-9	10-49	50--99	100-up
5RAN	SAR	21F1536	4.85	4.20	3.15	2.65

Type	Mfr.	Stock No.	1-99	100-999	1000-up
5RC2	INT	20F1457	5.53	3.69	....
5RC5	INT	20F1458	6.88	4.59	....
5SMB5L	INT	21FX1350	3.50	3.10	....
5SMB10L	INT	21FX1351	3.98	3.45	....
5SMB20L	INT	21FX1352	4.54	3.85	....
5SM1020E6	INT	20F1430	13.20	11.60	....
6F80A	INT	20F8240	22.60	15.25	....
6F100A	INT	20F8241	34.05	22.80	....
6.8SC20	INT	21F999	1.10	.83	....
7B1	GE	20F3250	11.20	7.45	....
7B2	GE	20F3251	12.15	8.10	....
7B3	GE	20F3252	13.65	9.10	....
7C1	GE	20F3255	10.60	7.05	....
7C2	GE	20F3256	11.55	7.70	....
7C3	GE	20F3257	13.00	8.65	....
7D1	GE	20F3260	10.40	6.95	....
7D2	GE	20F3261	11.40	7.60	....
7D3	GE	20F3262	12.80	8.55	....
7E1	GE	20F3265	12.65	8.45	....
7E2	GE	20F3266	13.65	9.10	....
7E3	GE	20F3267	15.15	10.10	....
7F1	GE	20F3270	11.20	7.45	....
7F2	GE	20F3271	12.15	8.10	....
7F3	GE	20F3272	13.65	9.10	....
7F4	GE	20F3273	14.05	9.35	....
10	SAR	21F258	.53 Ea. .50 6 up		
10B1	INT	20F1318	.86	.66	....
10B2	INT	20F1319	1.24	.95	....
10B4	INT	20F1321	2.46	1.89	....
10B8	INT	20F8199	7.50	5.00	....
10B10	INT	20F8200	9.00	6.00	....

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
10H	SAR	21FX1620	.99	.80	.70	.60
10J2/1N1621	SAR	21F1512	3.12	2.65	2.15	1.75
10J3N	SAR	21F1552	3.63	3.07	2.55	2.15
10J3P	SAR	21F1556	3.63	3.07	2.55	2.15
10M/1N1081	SAR	21F1505	1.19	1.10	.90	.73

Type	Mfr.	Stock No.	1-99	100-999	1000-up
10RC2	INT	21FX1301	9.70	6.50	....
10RC5	INT	21FX1303	10.30	6.90	....
10RC10	INT	21FX1305	11.80	7.85	....
10RC15	INT	21FX1306	14.00	9.35	....
10RC20	INT	21FX1307	15.30	11.20	....

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
10S3N	SAR	21FX6100	6.83	5.90	4.70	....
10SAN	SAR	21F1539	6.83	5.90	4.70	3.70
10T3N	SAR	21FX1603	7.72	6.85	5.65	4.15
10VAN	SAR	21F1542	13.67	11.30	9.30	8.25
10VAP	SAR	21F1543	15.59	....	....	....
10WAN	SAR	21F1545	14.11	12.75	10.25	9.40
10XAP	SAR	21F1548	17.23	14.50	12.55	11.50
10X3N	SAR	21FX1611	17.23	14.50	12.55	11.50

Type	Mfr.	Stock No.	1-99	100-999	1000-up
12MB10L	INT	20F1386	3.18	....	....
12MB20L	INT	20F1387	3.94	....	....
16F5	INT	20F8222	2.90	2.00	....
16F10	INT	20F8223	3.35	2.40	....
16F15	INT	20F8224	4.45	3.00	....
16F20	INT	20F8225	6.00	4.30	....
16F30	INT	20F8226	7.75	5.80	....
16F40	INT	20F8227	11.40	8.60	....
16F50	INT	20F8228	15.00	10.00	....
16F60	INT	20F8229	23.70	17.00	....
16F80	INT	20F8230	32.70	24.70	....
16F100	INT	20F8231	44.00	36.00	....
16RC5	INT	21FX1441	13.80	9.20	....

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
20H/1N2485	SAR	21FX1621	1.04	.85	.75	.65
20J2/1N1622	SAR	21F1513	3.82	3.30	2.75	2.14
20J3N6	SAR	21F1533	4.38	3.75	3.15	2.54
20J3P	SAR	21F1557	4.38	3.75	3.15	2.54

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
20LA/1N1086	SAR	21F1509	4.11	3.98	3.80	3.61
20M/1N1082	SAR	21F1506	1.25	1.16	1.00	.81
20RAN	SAR	21F1537	6.04	5.15	4.15	3.25
20S3N	SAR	21FX1601	7.62	6.50	5.25	4.10
20SAN	SAR	21F1540	7.62	6.50	5.25	4.10
30J2/1N1623	SAR	21F1514	4.56	3.84	3.19	2.62
30J3N	SAR	21F1554	5.12	4.29	3.59	3.02
30J3P	SAR	21F1558	5.12	4.29	3.59	3.02
30LA/1N1081	SAR	21F1510	4.60	4.45	4.20	3.99
30M/1N1038	SAR	21F1507	1.34	1.25	1.07	.88
30RAN	SAR	21F1538	7.42	6.30	5.10	4.00
30S3N	SAR	21FX1602	9.01	7.80	6.35	4.90
30XAN	SAR	21FX1610	26.93	24.15	22.10	21.10
40H/1N2487	SAR	21FX1622	1.09	1.00	.90	.80
40J2/1N1624	SAR	21FX1515	5.56	4.68	3.87	3.18
40J3N	SAR	21F1555	5.99	5.05	4.27	3.58
40J3P	SAR	21F1559	5.99	5.05	4.27	3.58
40LA/1N1088	SAR	21F1511	5.02	4.86	4.60	4.45
40RAN	SAR	21F1568	8.17	7.05	5.75	4.50
40RAP	SAR	21FX1569	8.17	7.05	5.75	4.50
40SAN	SAR	21F1541	9.60	8.20	6.70	5.20
40SAP	SAR	21F1567	9.60	8.20	6.70	5.20
45L5	INT	23F622	7.75	7.75	....	....
50-75	SAR	21F1560	.48	.45	.45	....
50	SAR	21F259	.56 Ea. .51 Lots of 6			

Type	Mfr.	Stock No.	1-99	100-999	1000-up	....
51C	HOF	21F2151	2.50	2.00	....	....
52C	HOF	21F2150	3.60	2.80	....	....
55C	HOF	21F2152	1.50	1.20	....	....
58C	HOF	21F2153	1.00	.80	....	....

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
60H/1N2489	SAR	21FX1623	1.48	1.30	1.20	1.10
65	SAR	21F261	.74 Ea. .67 Lots of 6			
75	SAR	21F250	.80 Ea. .73 Lots of 6			
80SM/1N1108	SAR	21F1525	4.24	4.10	4.00	3.60
100	SAR	21F251	.92 Ea. .84 Lots of 6			

Type	Mfr.	Stock No.	1-99	100-999	1000-up	....
100SC2	INT	20F1455	2.75	2.55	....	....
100-150	SAR	21F1561	.72 Ea. .65 Lots of 6			

Type	Mfr.	Stock No.	1-99	100-999	1000-up
110C	HOF	21F2149	1.90	1.50	....
120C	HOF	21F2148	2.40	1.90	....
120C-8	HOF	20F2303	3.75	3.45	....
120C-9	HOF	20F2304	4.90	4.95	....
120C-10	HOF	20F2305	7.50	5.65	....
120CG-11	HOF	20F2308	16.50	12.50	....
120CG-12	HOF	20F2309	25.00	18.75	....
120CG-13	HOF	20F2310	15.65	11.90	....
120CG-14	HOF	20F2311	25.00	18.95	....

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
120SM/1N1109	SAR	21F1526	6.37	6.17	6.00	5.40
150	SAR	21F252	Ea. 1.01 .92 Lots of 6			
160SM/1N1110	SAR	21F1527	8.48	8.23	8.00	7.20
200	SAR	21F253	Ea. 1.25 1.13 Lots of 6			
200-250	SAR	21F1562	1.08	.98	.98	....
200SM/1N1111	SAR	21F1528	10.59	10.28	10.00	9.00

Type	Mfr.	Stock No.	1-99	100-999	1000-up
220C-10	HOF	20F2129	15.65	11.90	....

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
240SM/1N1112	SAR	21F1529	12.72	12.30	12.00	10.80
250	SAR	21F254	Ea. 1.26 1.16 Lots of 6			
280SM/1N1113	SAR	21F1530	14.85	14.40	14.00	12.60
300	SAR	21F255	Ea. 1.31 1.20 Lots of 6			
300-500	SAR	21F1563	1.32	1.14	1.19	....
400	SAR	21F256	Ea. 1.66 1.51 Lots of 6			
500	SAR	21F257	Ea. 1.72 1.57 Lots of 6			

Type	Mfr.	Stock No.	1-99	100-999	1000-up
600C	TI	21F5017	3.25	2.66	....
601C	TI	21F5018	3.25	2.66	....
604C	TI	21F5019	3.25	2.66	....
606C	TI	21F5020	3.30	2.70	....
608C	TI	21F5021	3.40	2.78	....
610C	TI	21F5022	3.50	2.86	....
612C	TI	21F5023	3.60	2.94	....
614C	TI	21F5024	3.60	2.94	....
616C	TI	21F5025	3.65	2.99	....
618C	TI	21F5026	3.70	3.03	....
620C	TI	21F5027	2.99	2.70	....
622C	TI	21F5028	3.03	2.73	....
624C	TI	21F5029	.73	.56	....
650C	TI	21F5030	4.85	4.15	....
650C0	TI	21F5039	4.85	4.15	....
650C1	TI	21F5400	4.85	4.15	....
650C2	TI	21F5401	4.85	4.15	....
650C3	TI	21F5040	4.85	4.15	....
650C4	TI	21F5402	4.85	4.15	....
650C5	TI	21F5403	4.85	4.15	....
650C6	TI	21F5404	4.85	4.15	....
650C7	TI	21F5405	4.85	4.15	....
651	TI	20F5472	4.35	3.65	....
651CO	TI	21F5041	4.85	4.15	....
651C1	TI	21F5406	4.85	4.15	....
652C2	TI	21F5407	4.85	4.15	....
651C3	TI	21F5408	4.85	4.15	....
651C4	TI	21F5409	4.85	4.15	....
651C5	TI	21F5042	4.85	4.15	....
651C6	TI	21F5410	4.85	4.15	....
651C7	TI	21F5411	4.85	4.15	....
651C8	TI	21F5412	4.85	4.15	....
651C9	TI	21F5413	4.85	4.15	....
652	TI	20F5473	4.35	3.65	....
652C0	TI	21F5043	4.85	4.15	....
652C1	TI	21F5414	4.85	4.15	....
652C2	TI	21F5415	4.85	4.15	....
652C3	TI	21F5416	4.85	4.15	....
652C4	TI	21F5417	4.85	4.15	....
652C5	TI	21F5158	4.85	4.15	....
652C6	TI	21F5418	4.85	4.15	....
652C7	TI	21F5419	4.85	4.15	....
652C8	TI	21F5420	4.85	4.15	....
652C9	TI	21F5421	4.85	4.15	....
653	TI	20F5474	4.35	3.65	....
653C0	TI	21F5044	4.85	4.15	....
653C1	TI	21F5422	4.85	4.15	....
653C2	TI	21F5423	4.85	4.15	....
653C3	TI	21F5424	4.85	4.15	....
653C4	TI	21F5045	4.85	4.15	....
653C5	TI	21F5425	4.85	4.15	....
653C6	TI	21F5426	4.85	4.15	....
653C7	TI	21F5427	4.85	4.15	....
653C8	TI	21F5428	4.85	4.15	....
653C9	TI	21F5046	4.85	4.15	....
654C9	TI	21F5160	4.85	4.15	....
655C9	TI	21F5161	4.85	4.15	....
A1B	INT	21F857	1.22	.73	....
A1H	INT	21F851	.38	.23	....

Type	Mfr.	Stock No.	1-9	10-99	100-999
A5M	INT	21F894	7.00	6.65	4.55
A5PL	INT	20F1417	2.50	2.15	1.55

Type	Mfr.	Stock No.	1-99	100-999	1000-up
A40A	GE	20F3396	1.64	1.09	....
A40B	GE	20F3397	2.19	1.46	....
A40C	GE	20F3398	2.70	1.80	....
A40D	GE	20F3399	3.30	2.20	....
A40E	GE	20F3400	4.05	2.70	....
A40F	GE	20F3401	1.56	1.04	....
A40M	GE	20F3402	4.80	3.20	....

Type	Mfr.	Stock No.	1-10	11-99	100-up
A-600	TI	20F5363	225.00	175.00	....
A-601	TI	20F5364	325.00	290.00	....
A-602	TI	20F5365	425.00	400.00	....
A-610	TI	20F5366	225.00	175.00	....
A-611	TI	20F5367	325.00	290.00	....
A-612	TI	20F5368	425.00	400.00	....
A-670	TI	20F5369	5.00	5.00	....
A-671	TI	20F5370	6.00	6.00	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
AC/132	AMP	21FX2682	1.55	1.03	....
B1B	INT	21F888	1.28	.77	....
B1H	INT	21F852	.40	.24	....

Type	Mfr.	Stock No.	1-9	10-99	100-999
B2PL	INT	20F1420	1.50	1.35	1.00
B10M	INT	21F884	7.00	6.65	4.55
B12F10	INT	20F1392	13.40	13.40	....
B12F20	INT	20F1393	18.56	18.56	....
B12F40	INT	20F1394	23.20	23.20	....
B15PL	INT	20F1422	6.50	5.95	4.15

Type	Mfr.	Stock No.	1-99	100-999	1000-up
B25H40	INT	20F1398	39.80	....	....
BCZ10	AMP	21FX2626	4.05	2.70	....
BCZ11	AMP	21FX2627	4.60	3.08	....
BY100	AMP	21FX2675	1.35	.89	....
C1B	INT	21F859	1.46	.88	....
C1H	INT	21F853	.42	.25	....
C9A	GE	20F3445	11.70	7.80	....
C9B	GE	20F3447	16.50	11.00	....
C9C	GE	20F3449	24.20	16.10	....
C9F	GE	20F3444	8.50	5.60	....
C9G	GE	20F3446	14.60	9.70	....
C9H	GE	20F3448	19.80	13.20	....
C9U	GE	20F3443	6.75	4.50	....
C15A	GE	20F3452	5.10	3.40	....
C15B	GE	20F3359	6.30	4.20	....
C15C	GE	20F3375	8.70	5.80	....
C15D	GE	20F3376	10.30	6.85	....
C15F	GE	20F3451	4.80	3.20	....
C15G	GE	20F3453	5.85	3.90	....
C15U	GE	20F3450	4.65	3.10	....
C35M	GE	21F3155	64.50	43.00	....
C35S	GE	20F3275	75.00	50.00	....
C36M	GE	20F3277	48.50	32.25	....
C36S	GE	20F3278	56.25	37.50	....
C37A	GE	20F3379	7.20	4.80	....
C37B	GE	20F3380	11.25	7.50	....
C37C	GE	20F3381	18.75	12.50	....
C37D	GE	20F3382	28.15	18.75	....
C37F	GE	20F3378	6.00	4.00	....
C37U	GE	20F3377	5.65	3.75	....
C40A	GE	21FX3452	17.30	11.55	....
C40B	GE	21FX3454	24.75	16.50	....
C40C	GE	21FX3456	36.25	24.20	....
C40D	GE	20F3279	47.75	31.90	....
C40E	GE	20F3280	59.50	39.60	....
C40F	GE	21FX3451	15.30	10.20	....
C40G	GE	21FX3453	20.50	13.75	....
C40H	GE	21FX3455	30.50	20.40	....
C40U	GE	21FX3450	14.50	9.65	....

Type	Mfr.	Stock No.	1-24	25-99	100-up
C50E	GE	20F3156	170.00	133.00	....
C50M	GE	20F3383	210.00	160.00	....
C55A	GE	20F3159	55.00	43.00	....
C55B	GE	20F3161	75.00	59.00	....
C55C	GE	20F3163	110.00	85.00	....
C55D	GE	20F3164	150.00	116.00	....
C55E	GE	20F3461	175.00	138.00	....
C55F	GE	20F3158	45.00	35.00	....
C55G	GE	20F3160	70.00	55.00	....
C55H	GE	20F3162	93.00	72.50	....
C55U	GE	20F3157	33.70	26.50	....
C80A	GE	20F3384	123.00	111.00	....
C80B	GE	20F3385	202.00	161.00	....
C80C	GE	20F3386	317.00	254.00	....
C80D	GE	20F3387	440.00	352.00	....
C80E	GE	20F3388	528.00	423.00	....
C80F	GE	20F3389	99.50	79.50	....
C80G	GE	20F3390	177.00	141.00	....
C80H	GE	20F3391	282.00	226.00	....
C80M	GE	20F3392	666.00	525.00	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
CK22A	RAY	21FX9662	3.00	2.00	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
CK719	RAY	20F9531	12.50	8.62	....
CR101	RCA	21FX7351	9.00	8.25	....
CR102	RCA	21FX7352	10.80	9.90	....
CR103	RCA	21FX7353	12.60	11.55	....
CR104	RCA	21FX7354	15.60	14.30	....
CR105	RCA	21FX7355	19.20	17.60	....
CR106	RCA	21FX7356	22.20	20.35	....
CR107	RCA	21FX7357	25.80	23.65	....
CR108	RCA	21FX7358	29.40	26.95	....
CR109	RCA	21FX7359	33.00	30.25	....
CR110	RCA	21FX7360	37.20	34.10	....
CR201	RCA	21FX7361	6.00	5.50	....
CR203	RCA	21FX7362	9.60	8.80	....
CR204	RCA	21FX7363	13.20	12.10	....
CR206	RCA	21FX7364	18.00	16.50	....
CR208	RCA	21FX7365	24.00	22.00	....
CR210	RCA	21FX7366	26.40	24.20	....
CR212	RCA	21FX7367	28.80	26.40	....

Type	Mfr.	Stock No.	1-9	10-99	100-up
DP3	INT	21F890	10.00	9.50	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
D1820	SYL	20F4612	.80	.63	.50
D3530	SYL	21FX4909	1.30	.90	.80
D4103	SYL	21FX4754	6.15	4.85	4.40
D4109	SYL	21FX4929	9.25	7.25	6.60
D4121	SYL	21FX4930	9.25	6.25	4.50
D4168	SYL	21FX4947	17.50	15.00	13.75
D4168A	SYL	21FX4948	30.00	25.30	23.60
D4168B	SYL	21FX4949	55.00	47.20	43.25
D4168C	SYL	21FX4950	90.00	77.20	70.70
D4168D	SYL	21FX4951	125.00	107.00	98.25
E-84	TI	21FX5878	3.00	2.50	....
E-85	TI	21FX5876	3.00	2.50	....
E-86	TI	21FX5874	3.00	2.50	....
E-87	TI	21FX5870	3.00	2.50	....
E-88	TI	21FX5868	3.00	2.50	....
E-89	TI	21FX5867	3.00	2.50	....
E-140	TI	21FX5877	3.00	2.50	....
E-141	TI	21FX5875	3.00	2.50	....
E-142	TI	21FX5873	3.00	2.50	....
E-143	TI	21FX5872	3.00	2.50	....
E-144	TI	21FX5871	3.00	2.50	....
E-145	TI	21FX5869	3.00	2.50	....
E-261	TI	21FX5879	3.00	2.50	....
E-262	TI	21FX5880	3.00	2.50	....
EA7E1	HOF	21FX2309	8.25	6.20	....
EA7E2	HOF	21FX2310	7.50	5.65	....
EA7E3	HOF	21FX2311	6.40	4.80	....
EA7E5	HOF	21FX2312	5.75	4.30	....
FZ3.3T5	INT	20F8300	3.60	2.85	....
FZ3.6T5	INT	20F8301	3.60	2.85	....
FZ3.9T5	INT	20F8302	3.60	2.85	....
FZ4.3T5	INT	20F8303	3.60	2.85	....
FZ4.7T5	INT	20F8304	3.60	2.85	....
FZ5.1T5	INT	20F8305	3.60	2.85	....
FZ5.6T5	INT	20F8306	3.60	2.85	....
FZ6.2T5	INT	20F8307	3.60	2.85	....
FZ6.8T5	INT	20F8308	3.60	2.85	....
FZ7.5T5	INT	20F8309	3.60	2.85	....
FZ8.2T5	INT	20F8310	3.60	2.85	....
FZ9.1T5	INT	20F8311	3.60	2.85	....
FZ10T5	INT	20F8312	3.60	2.85	....
FZ11T5	INT	20F8313	3.60	2.85	....
FZ12T5	INT	20F8314	3.60	2.85	....
FZ13T5	INT	20F8315	3.60	2.85	....
FZ14T5	INT	20F8316	3.60	2.85	....
FZ15T5	INT	20F8317	3.60	2.85	....
FZ16T5	INT	20F8318	3.60	2.85	....
FZ17T5	INT	20F8319	3.60	2.85	....
FZ18T5	INT	20F8320	3.60	2.85	....
FZ19T5	INT	20F8321	3.60	2.85	....
FZ20T5	INT	20F8322	3.60	2.85	....
FZ22T5	INT	20F8323	3.60	2.85	....
FZ24T5	INT	20F8324	3.60	2.85	....
FZ25T5	INT	20F8325	3.60	2.85	....
FZ27T5	INT	20F8326	3.60	2.85	....
FZ30T5	INT	20F8327	3.60	2.85	....

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
F2/1N2482	SAR	21FX1617	.99	.80	.70	.60
F4/1N2483	SAR	21FX1618	1.14	.95	.85	.75
F6/1N2484	SAR	21FX1619	1.24	1.10	.90	.85

Type	Mfr.	Stock No.	1-99	100-999	1000-up
G01	TI	21FX5905	.95	.75	....
G02	TI	20F5014	.73	.56	....
G129	TI	21FX5635	1.30	.85	....
G130	TI	21FX5636	1.30	.85	....
G222	TI	20F5015	.75	.65	....
G296	TI	20F5017	.85	.70	....
H5B	HOF	21FX2313	8.45	6.35	....
H5C	HOF	21FX2314	11.45	8.60	....
H11	TI	21FX5910	4.00	2.80	....
H35	TI	21FX5911	5.00	3.50	....
H38	TI	21FX5912	4.00	2.80	....
H60	TI	20F5489	8.00	5.60	....
H61	TI	20F5490	9.00	6.25	....
H62	TI	20F5491	10.00	7.00	....
HB1	HOF	21F2136	.44	.44	....
HB2	HOF	21F2137	.44	.44	....
HB3	HOF	21F2138	.44	.44	....
HD5000	HUG	21FX7912	3.60	2.70	....
HD5001	HUG	21FX7913	3.20	2.40	....
HD5002	HUG	21FX7914	2.80	2.10	....
HD5003	HUG	21FX7915	2.40	1.80	....
HD5004	HUG	21FX7916	2.00	1.50	....
HS-6	HOF	20F2292	1.30	.85	....
HS-7	HOF	20F2293	3.50	2.10	....
HS-8	HOF	20F2294	3.50	2.10	....
HS-9	HOF	20F2295	4.00	2.60	....
HS-10	HOF	20F2296	5.00	3.10	....
HS-11	HOF	20F2297	5.00	3.10	....
HS-12	HOF	20F2298	5.50	3.40	....
HS-13	HOF	20F2299	6.00	3.70	....
HS-14	HOF	20F2300	6.00	3.70	....
HU-5	HOF	21FX2317	7.50	5.70	....
HU-5A	HOF	21FX2318	9.00	6.75	....
HU-10	HOF	21FX2319	7.50	5.70	....
HU-10A	HOF	21FX2320	9.00	6.75	....
HU-25	HOF	21FX2321	7.50	5.70	....
HU-25A	HOF	21FX2322	9.00	6.75	....
HU-50	HOF	21FX2323	7.50	5.70	....
HU-50A	HOF	21FX2324	9.00	6.75	....
HU-75	HOF	21FX2325	7.50	5.70	....
HU-75A	HOF	21FX2326	9.00	6.75	....
HU-100	HOF	21FX2327	7.50	5.70	....
HU-100A	HOF	21FX2328	9.00	6.75	....

Type	Mfr.	Stock No.	1-9	10-99	
J14C04	INT	21F800	.95	.79	....
J14C1	INT	21F802	1.39	1.16	....
J14C5	INT	21F803	3.48	2.90	....
J14C17	INT	21F805	7.55	6.30	....
J29B04	INT	21F809	1.57	1.33	....
J29B1	INT	21F810	2.28	1.90	....
J29B5	INT	21F812	6.43	5.63	....
J29B8	INT	21F813	8.93	7.44	....
J29B17	INT	21F814	13.27	11.06	....
J58B04	INT	21F816	3.11	2.60	....
J58B1	INT	21F817	4.49	3.74	....
J58B5	INT	21F819	12.08	10.07	....
J58B8	INT	21F820	16.75	13.96	....
J116B5	INT	21F826	22.91	19.10	....
J116B8	INT	21F827	32.09	26.75	....
J116B17	INT	21F828	50.45	42.05	....
J116B04	INT	21F829	5.56	4.63	....
J116B1	INT	21F830	8.15	6.80	....
J135B04	INT	21F836	6.77	5.65	....
J135B1	INT	21F837	9.93	8.28	....
J135B8	INT	21F840	39.71	33.10	....
JD116K	INT	20F1414	1.20	.96	....
JD117K	INT	20F1415	1.80	1.44	....
JD241K	INT	20F1416	2.46	1.97	....
JJ1010	INT	20F8214	1.60	1.35	....
JJ1020	INT	20F8215	1.60	1.35	....

Type	Mfr.	Stock No.	1-99	100-999	
JZ8.7T10	INT	20F8258	3.50	2.63	....
JZ10.5T10	INT	20F8259	3.50	2.63	....
JZ12.7T10	INT	20F8260	3.50	2.63	....
JZ15.7T10	INT	20F8261	3.50	2.63	....
JZ19.0T10	INT	20F8262	3.50	2.63	....
JZ23.5T10	INT	20F8263	3.50	2.63	....
JZ28.5T10	INT	20F8264	3.50	2.63	....
JZ34.5T10	INT	20F8265	3.50	2.63	....
JZ38.5T10	INT	20F8265	3.50	2.63	....

Type	Mfr.	Stock No.	1-99	100-999	
KZ2.6T10	INT	20F8266	3.75	2.81	....
KZ3.4T10	INT	20F8267	3.75	2.81	....
KZ4.1T10	INT	20F8268	3.75	2.81	....
KZ4.8T10	INT	20F8269	3.75	2.81	....
KZ5.8T10	INT	20F8270	3.75	2.81	....
KZ7.1T10	INT	20F8271	3.75	2.81	....
LS221	TI	21FX5645	24.00	20.00	....
LS222	TI	20F5487	6.00	5.45	....
LS223	TI	20F5488	9.40	9.20	....

Type	Mfr.	Stock No.	1-9	10-49	50-99	100-up
M-150 Kit	SAR	21F264	.95	.86	.77	......
M-150	SAR	21F263	.94	.85	.76	......
M-500 Kit	SAR	21F265	2.80	2.52	2.24	....
M-500	SAR	21F268	1.48	1.40	1.20	.99

Type	Mfr.	Stock No.	1-99	100-999	
MCR649-1	MOT	20F4400	9.80	6.55	....
MCR649-2	MOT	20F4401	10.40	6.95	....
MCR649-3	MOT	20F4402	11.85	7.90	....
MCR649-4	MOT	20F4403	16.85	11.25	....
MCR649-5	MOT	20F4404	24.75	16.50	....
MCR649-6	MOT	20F4405	33.00	22.00	....
MCR649-7	MOT	20F4406	40.00	27.00	....

Type	Mfr.	Stock No.	1-9	10-99	100-up
M0001	SYL	21FX4935	6.75	5.90	....
M0002	SYL	21FX4936	10.00	8.75	....
M0003	SYL	21FX4937	7.50	6.55	....
M0004	SYL	21FX4938	11.70	10.20	....
M0005	SYL	21FX4939	8.00	7.00	....
M0006	SYL	21FX4940	12.40	10.80	....
M0010	SYL	21FX4941	14.50	13.00	....
M0011	SYL	21FX4942	17.60	15.40	....
M0012	SYL	21FX4943	19.00	16.60	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
MP1	GE	20F3509	8.25	5.50	....
MP2	GE	20F3510	7.50	5.00	....
MP500	MOT	20F4389	6.35	4.25	....
MP501	MOT	20F4390	10.80	7.20	....
MP501A	MOT	20F4467	11.55	7.70	....
MP502	MOT	20F4391	14.25	4.50	....
MP502A	MOT	20F4468	15.00	11.00	....
MP503	MOT	20F4392	20.25	13.50	....

SEMICONDUCTOR DIRECTORY

Type	Mfr.	Stock No.	1-99	100-999	1000-up
MP504	MOT	20F4393	7.40	4.95	....
MP504A	MOT	20F4469	8.15	5.45	....
MP505	MOT	20F4394	12.00	8.00	....
MP505A	MOT	20F4470	12.75	8.50	....
MP506	MOT	20F4395	16.10	10.75	....
MP507	MOT	20F4396	22.50	15.00	....
MQ1	GE	20F3511	16.50	11.00	....
MQ2	GE	20F3512	15.00	10.00	....
MR322	MOT	20F4000	.73	.49	....
MR322R	MOT	20F4001	.73	.49	....
MR323	MOT	20F4002	.81	.54	....
MR323R	MOT	20F4003	.81	.54	....
MR324	MOT	20F4004	1.20	.80	....
MR324R	MOT	20F4005	1.20	.80	....
MR325	MOT	20F4006	1.54	1.03	....
MR325R	MOT	20F4007	1.54	1.03	....
MR326	MOT	20F4008	1.93	1.29	....
MR326R	MOT	20F4009	1.93	1.29	....
MTD1	GE	20F3504	15.00	10.00	....
MTD2	GE	20F3505	12.50	8.50	....
MTD3	GE	20F3506	10.00	6.65	....
MTD4	GE	20F3507	10.00	6.65	....
M1H	INT	21F854	.56	.34	....
M1B	INT	21F868	1.72	1.03	....
0A5	AMP	21FX2642	.85	.75	....
0A9	AMP	21FX2643	.95	.85	....
0AZ200	AMP	21FX2644	4.10	2.73	....
0AZ201	AMP	21FX2645	3.50	2.34	....
0AZ202	AMP	21FX2646	2.55	1.70	....
0AZ203	AMP	21FX2647	2.85	1.90	....
0AZ204	AMP	21FX2648	2.55	1.70	....
0AZ205	AMP	21FX2649	2.55	1.70	....
0AZ206	AMP	21FX2650	2.55	1.70	....
0AZ207	AMP	21FX2651	3.50	2.34	....
0C22	AMP	21FX2603	3.85	2.56	....
0C23	AMP	21FX2604	4.20	2.80	....
0C24	AMP	21FX2605	4.30	2.85	....
0C139	AMP	21FX2623	4.20	3.35	....
0C140	AMP	21FX2624	4.90	3.95	....
0C141	AMP	21FX2625	5.40	4.35	....
OMC28	OMC	21FX2526	.37	.27	....
PADT40	AMP	21FX2652	1.68	1.12	....
PADT50	AMP	21FX2676	5.00	3.34	....
PADT60	AMP	21FX2677	8.00	5.40	....
Q1B	INT	21F855	.84	.50	....
Q1H	INT	21F850	.36	.22	....
Q4B	INT	21F856	1.56	.94	....
QT1	INT	20F8242	3.00	2.00	....
QZ3.3T5	INT	20F8272	2.75	2.25	....
QZ3.6T5	INT	20F8273	2.75	2.25	....
QZ3.9T5	INT	20F8274	2.75	2.25	....
QZ4.3T5	INT	20F8275	2.75	2.25	....
QZ4.7T5	INT	20F8276	2.75	2.25	....
QZ5.1T5	INT	20F8277	2.75	2.25	....
QZ5.6T5	INT	20F8278	2.75	2.25	....
QZ6.2T5	INT	20F8279	2.75	2.25	....
QZ6.8T5	INT	20F8280	2.75	2.25	....
QZ7.5T5	INT	20F8281	2.75	2.25	....
QZ8.2T5	INT	20F8282	2.75	2.25	....
QZ9.1T5	INT	20F8283	2.75	2.25	....
QZ10T5	INT	20F8284	2.75	2.25	....
QZ11T5	INT	20F8285	2.75	2.25	....
QZ12T5	INT	20F8286	2.75	2.25	....
QZ13T5	INT	20F8287	2.75	2.25	....
QZ14T5	INT	20F8288	2.75	2.25	....
QZ15T5	INT	20F8289	2.75	2.25	....
QZ16T5	INT	20F8290	2.75	2.25	....
QZ17T5	INT	20F8291	2.75	2.25	....
QZ18T5	INT	20F8292	2.75	2.25	....
QZ19T5	INT	20F8293	2.75	2.25	....
QZ20T5	INT	20F8294	2.75	2.25	....
QZ22T5	INT	20F8295	2.75	2.25	....
QZ24T5	INT	20F8296	2.75	2.25	....
QZ25T5	INT	20F8297	2.75	2.25	....
QZ27T5	INT	20F8298	2.75	2.25	....
QZ30T5	INT	20F8299	2.75	2.25	....
RS-6	HOF	21FX2287	1.80	1.35	....
RT-6	HOF	21FX2288	1.80	1.35	....

Type	Mfr.	Stock No.	1-9	10-99	100-up
S-487	SAR	21FX1651	.87	.78	.70
S-488	SAR	21FX1653	1.19	1.07	.95
S-489	SAR	21FX1654	1.83	1.36	1.21
S-490	SAR	21FX1655	1.83	1.65	1.46
S-491	SAR	21FX1656	2.15	1.94	1.72
S-492	SAR	21FX1657	2.47	2.22	1.98
S-493	SAR	21FX1659	3.75	3.38	3.00
S-494	SAR	21FX1660	4.39	3.95	3.51
S-495	SAR	21FX1661	4.39	3.95	3.51

Type	Mfr.	Stock No.	1-9	10-49	50-99
S-591	SAR	21FX1650	.83	.75	.66
S-592	SAR	21FX1652	1.39	1.25	1.10
S-593	SAR	21FX1658	1.79	2.51	2.22
S-594	SAR	21FX1662	5.03	4.53	4.02

Type	Mfr.	Stock No.	1-99	100-999	1000-up
S-1020E4PL	INT	20F1427	1.95	1.75	....
S-1020E6PL	INT	20F1428	2.50	2.20	....
S-1020E8PL	INT	20F1429	3.85	3.40	....
S-5011A/ 1N1150A	SAR	21F1531	12.87	11.70	....
S-5017/ 1N1237	SAR	21F1532	12.87	11.70	....
S-5018/ 1N1238	SAR	21F1533	12.87	11.70	....
S-5019/ 1N1239	SAR	21F1534	20.25	18.10	....
S-5130	SAR	21FX1614	28.86	26.85	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
S-5207/ 1N2490	SAR	21FX1615	12.87	11.70	....
S-5251/ 1N2389	SAR	21FX1616	6.04	5.85	....
S-5343	SAR	21F1564	20.25	18.10	....
S-5347	SAR	21F1565	12.87	9.40	....
SD91	INT	21FX1308	.59	.39	....
SD91A	INT	23F600	.62	.41	....
SD92	INT	21FX1309	.68	.46	....
SD92A	INT	23F601	.72	.48	....
SD93	INT	21FX1310	.86	.57	....
SD93A	INT	23F602	.90	.60	....
SD94	INT	21FX1311	.96	.64	....
SD94A	INT	23F603	1.01	.67	....
SD95	INT	21FX1312	1.06	.71	....
SD95A	INT	23F604	1.12	.75	....

Type	Mfr.	Stock No.	1-99	100-999	1000-4999
SR1692	SYL	21FX4774	.59	.38	.34
SR1693	SYL	21FX4775	.63	.41	.37
SR1694	SYL	21FX4776	.78	.51	.46
SR1695	SYL	21FX4777	.93	.62	.56

Type	Mfr.	Stock No.	1-9	10-99	1000-up
ST-1	INT	20F1442	13.00	9.95	....
ST-1A	INT	20F1443	30.00	21.00	....
ST-2	INT	20F1444	13.00	9.95	....
ST-2A	INT	20F1445	20.45	15.75	....
ST-3	INT	20F1446	13.00	9.95	....
ST-4	INT	20F1447	13.00	9.95	....
ST-5	INT	20F1448	14.40	10.08	....
ST-6	INT	20F1449	14.40	10.08	....
ST-7A	INT	20F1450	28.25	21.00	....

Type	Mfr.	Stk. No.	1-9	10-up
ST-8	INT	20F1451	9.00	6.90

Type	Mfr.	Stock No.	1-99	100-999	1000-up
SYL101	SYL	21FX4866	1.50	1.00	....
SYL103	SYL	21FX4863	1.17	.78	....
SYL104	SYL	21FX4864	1.47	.98	....

Type	Mfr.	Stock No.	1-9	10-99	1000-up
T-065/75	INT	20F1423	.48	.43	....
T-075/150	INT	20F1424	.69	.62	....
T-200/300	INT	20F1425	1.08	.97	....

Type	Mfr.	Stock No.	1-99	100-999	
TD-310	GE	20F3499	30.00	20.00	....
TD-310A	GE	20F3500	35.00	23.50	....
TD-311	GE	20F3501	30.00	20.00	....
TD-311A	GE	20F3502	35.00	23.50	....
TD-311B	GE	20F3503	40.00	27.00	....

Type	Mfr.	Stock No.	1-99	100-999	1000-up
TI-6	TI	21FX5829	1.68	1.26	....
TI-40A0	TI	20F5380	4.65	3.10	....
TI-40A1	TI	20F5381	5.10	3.40	....
TI-40A2	TI	21FX5898	6.30	4.20	....
TI-40A3	TI	20F5382	8.70	5.80	....
TI-40A4	TI	20F5383	10.30	6.85	....
TI-40A5	TI	20F5384	30.00	20.00	....
TI-40A6	TI	20F5385	37.50	25.00	....
TI-42	TI	20F5173	1.50	1.00	....
TI-43	TI	20F5530	2.25	1.50	....
TI-116	TI	21FX5811	12.00	8.00	....
TI-117	TI	21FX5812	18.00	12.00	....
TI-118	TI	21FX5813	30.00	20.00	....
TI-136	TI	21FX5814	12.00	8.00	....
TI-137	TI	21FX5815	18.00	12.00	....
TI-138	TI	21FX5816	30.00	20.00	....
TI-140A0	TI	20F5386	4.65	3.10	....
TI-140A1	TI	20F5387	5.10	3.40	....
TI-140A2	TI	20F5388	7.30	4.20	....
TI-140A3	TI	20F5389	8.70	5.80	....
TI-140A4	TI	20F5390	10.55	6.85	....
TI-140A5	TI	20F5391	30.00	20.00	....
TI-140A6	TI	20F5392	37.50	25.00	....
TI-145A0	TI	20F5393	4.65	3.10	....
TI-145A1	TI	20F5394	5.10	3.40	....
TI-145A2	TI	20F5395	6.30	4.20	....
TI-145A3	TI	20F5396	8.75	5.80	....
TI-145A4	TI	20F5397	10.30	6.85	....
TI-145A5	TI	20F5398	30.00	20.00	....
TI-145A6	TI	20F5399	37.50	25.00	....
TI-251	TI	20F5373	1.68	1.26	....
TI-252	TI	20F5374	1.72	1.28	....
TI-253	TI	20F5375	1.78	1.32	....
TI-254	TI	20F5376	2.75	1.60	....
TI-255	TI	20F5377	2.95	2.40	....
TI-256	TI	20F5378	3.35	2.60	....
TI-257	TI	20F5379	3.65	2.80	....
TI-320	TI	21F5164	1.50	1.00	....
TI-321	TI	20F5174	1.66	1.10	....
TI-363	TI	20F5175	.85	.57	....
TI-364	TI	20F5176	.78	.52	....
TI-365	TI	20F5177	1.50	1.00	....
TI-366	TI	21FX5974	2.67	1.78	....
TI-366A	TI	21FX5979	2.84	1.89	....
TI-367	TI	21FX5975	2.34	1.56	....
TI-367A	TI	21FX5980	2.50	1.67	....
TI-368	TI	21FX5976	2.09	1.39	....
TI-368A	TI	21FX5981	2.25	1.50	....
TI-369	TI	21FX5977	1.76	1.17	....
TI-369A	TI	21FX5982	1.92	1.28	....
TI-370	TI	21FX5978	1.50	1.00	....
TI-370A	TI	21FX5983	1.67	1.11	....
TI-376	TI	21F5057	.71	.49	....
TI-377	TI	20F5347	.70	.47	....
TI-388	TI	20F5188	1.20	.80	....
TI-389	TI	20F5189	1.20	.80	....
TI-390	TI	20F5336	2.04	1.36	....
TI-391	TI	20F5337	1.85	1.23	....
TI-392	TI	20F5338	1.77	1.18	....
TI-393	TI	20F5339	1.52	1.01	....
TI-395	TI	20F5190	1.41	.95	....
TI-396	TI	20F5191	2.51	1.67	....
TI-397	TI	20F5192	.92	.61	....
TI-398	TI	20F5193	.87	.58	....
TI-399	TI	20F5194	.87	.58	....
TI-480	TI	21FX5792	1.55	1.20	....
TI-481	TI	21FX5793	1.90	1.45	....
TI-482	TI	21FX5794	2.15	1.65	....
TI-483	TI	21FX5795	2.40	1.85	....
TI-484	TI	21FX5796	2.95	2.25	....
TI-485	TI	20F5009	3.25	2.50	....
TI-486	TI	20F5010	5.00	3.85	....
TI-487	TI	20F5011	5.65	4.35	....
TI-492	TI	21FX5788	1.55	1.20	....
TI-493	TI	21FX5789	1.90	1.45	....
TI-494	TI	21FX5790	2.50	1.90	....
TI-495	TI	21FX5791	3.00	2.30	....
TI-496	TI	21FX5012	1.75	1.35	....
TI-1599-5	TI	20F5402	41.25	27.50	....
TI-1599-6	TI	20F5403	51.75	34.50	....
TI-1779	TI	20F5423	51.75	34.50	....
TI-1935	TI	20F5411	31.00	20.75	....
TI-1936	TI	20F5412	41.25	27.50	....
TI-1937	TI	20F5413	51.75	34.50	....

Type	Mfr.	Stock No.	1-9	10-99	100-999
V50HF	INT	21F860	3.43	2.40	2.06
V75HF	INT	21F861	4.60	3.22	2.76
V100HF	INT	21F862	5.50	3.85	3.30
V125HF	INT	21F863	6.85	4.80	4.11
V150HF	INT	21F864	7.75	5.42	4.65
V175HF	INT	21F865	9.10	6.37	5.46

Type	Mfr.	Stock No.	NET
VD-110	RCA	21FX7250	30.00
VD-110A	RCA	21FX7251	55.00
VD-111	RCA	21FX7252	140.00
VD-111A	RCA	21FX7253	65.00
VD-112	RCA	21FX7254	50.00
VD-112A	RCA	21FX7255	80.00
VD-113	RCA	21FX7256	65.00
VD-113A	RCA	21FX7257	100.00
VD-114	RCA	21FX7258	85.00
VD-114A	RCA	21FX7259	125.00
VD-115	RCA	21FX7260	110.00
VD-115A	RCA	21FX7261	155.00
VD-116	RCA	21FX7262	140.00
VD-116A	RCA	21FX7263	190.00
VD-117	RCA	21FX7264	180.00
VD-117A	RCA	21FX7265	235.00
VD-118	RCA	21FX7266	230.00
VD-118A	RCA	21FX7267	290.00
VD-119	RCA	21FX7268	295.00
VD-119A	RCA	21FX7269	360.00
VD-120	RCA	21FX7270	375.00
VD-120A	RCA	21FX7271	450.00

See Pages 25 to 69 for Complete Listings of Semiconductors by Mfrs.

SEMICONDUCTOR DIRECTORY & SEMICONDUCTORS

Type	Mfr.	Stock No.	NET
VD-121	RCA	21FX7272	500.00
VD-121A	RCA	21FX7273	600.00
VD-210	RCA	21FX7274	30.00
VD-210A	RCA	21FX7275	55.00
VD-211	RCA	21FX7276	40.00
VD-211A	RCA	21FX7277	65.00
VD-212	RCA	21FX7278	50.00
VD-212A	RCA	21FX7279	80.00
VD-213	RCA	21FX7280	65.00
VD-213A	RCA	21FX7281	100.00
VD-214	RCA	21FX7282	85.00
VD-214A	RCA	21FX7283	125.00
VD-215	RCA	21FX7284	110.00
VD-215A	RCA	21FX7285	155.00
VD-216	RCA	21FX7286	140.00
VD-216A	RCA	21FX7287	190.00
VD-217	RCA	21FX7288	180.00
VD-217A	RCA	21FX7289	235.00
VD-218	RCA	21FX7290	230.00
VD-218A	RCA	21FX7291	290.00
VD-219	RCA	21FX7292	295.00
VD-219A	RCA	21FX7293	360.00
VD-220	RCA	21FX7294	375.00
VD-220A	RCA	21FX7295	450.00

Type	Mfr.	Stock No.	NET
VD-221	RCA	21FX7296	500.00
VD-221A	RCA	21FX7297	600.00
VD-310	RCA	21FX7298	20.00
VD-311	RCA	21FX7299	30.00
VD-312	RCA	21FX7300	50.00
VD-313	RCA	21FX7301	100.00
VD-314	RCA	21FX7302	150.00
VD-315	RCA	21FX7303	200.00
VD-500	RCA	21FX7304	8.00
VD-500A	RCA	21FX7305	8.00
VD-501	RCA	21FX7306	15.00
VD-501A	RCA	21FX7307	15.00
VD-502	RCA	21FX7308	30.00
VD-502A	RCA	21FX7309	30.00
VD-503	RCA	21FX7310	60.00
VD-503A	RCA	21FX7311	60.00
VD-510	RCA	21FX7312	15.00
VD-510A	RCA	21FX7313	15.00
VD-511	RCA	21FX7314	30.00
VD-511A	RCA	21FX7315	30.00
VD-512	RCA	21FX7316	60.00
VD-512A	RCA	21FX7317	60.00
VD-513	RCA	21FX7318	120.00
VD-513A	RCA	21FX7319	120.00

Type	Mfr.	Stock No.	NET
VD-520	RCA	21FX7320	30.00
VD-520A	RCA	21FX7321	30.00
VD-521	RCA	21FX7322	45.00
VD-521A	RCA	21FX7323	45.00
VD-522	RCA	21FX7325	90.00
VD-522A	RCA	21FX7325	90.00
VD-523	RCA	21FX7326	180.00
VD-523A	RCA	21FX7327	180.00

Type	Mfr.	Stock No.	1-99	100-up
XA-650	TI	20F5467	4.35	3.65
XA-651	TI	20F5468	4.35	3.65
XA-652	TI	20F5469	4.35	3.65
XA-653	TI	20F5470	4.35	3.65
XD-500	TI	21FX5750	170.00	140.00
XD-501	TI	21FX5751	280.00	240.00
XD-502	TI	21FX5752	400.00	329.00
XLC-100	RCA	21FX7343	450.00	....
XLC-101	RCA	21FX7344	450.00	....
XSC-100	RCA	21FX7345	100.00	....
XSC-101	RCA	21FX7346	200.00	....

THIS SEMICONDUCTOR LISTING IS COMPLETE TO THE DATE OF PRINTING, AUGUST 15, 1962, BUT NEW ITEMS ARE CONTINUALLY COMING OUT AND ARE BEING ADDED TO THE NEWARK STOCK. CHECK WITH THE NEWARK INDUSTRIAL DEPARTMENT FOR ANY NEW SEMICONDUCTORS NOT LISTED. ORDERS WILL BE BILLED TO YOU AT THOSE PRICES IN EFFECT AT TIME OF SHIPMENT.

SEE PAGES 25 TO 69 FOR A COMPLETE LISTING OF SEMICONDUCTORS BY MANUFACTURERS AND CLASSIFICATIONS WITH IMPORTANT SPECIFICATIONS INCLUDED.

I. T. T. SEMICONDUCTORS

CONTACT PROTECTORS

Protector is installed across inductance to reduce effects of "inductive kick." The I.T.T. Contact Protector will accommodate all signal and telephone type relays which operate up to 40 times per second and draw up to 600 Ma operating current at 150 Volts AC or DC. Useful in either AC or DC circuits, easily mounted by the use of pigtail leads.

FOR AC OPERATION

Stock No.	Mfg. No.	Max. Volts	Max. Coil Ma.	Min. Volts	1-9	10-99	100-999
21F169	8A1PS1	26	200	0	.87	.53	.44
21F171	8A2PS2	52	200	27	1.04	.64	.52
21F173	8A3PS3	78	200	53	1.06	.65	.53
21F174	8A5PS5	130	200	105	1.36	.84	.69
21F175	15A5PS5	130	400	105	1.52	.94	.76
FOR DC OPERATION							
21F160	8A1PS1	22	250	0	.87	.53	.44
21F161	15A1PS1	22	600	15	.92	.56	.46
21F162	8A2PS1	44	250	23	.88	.54	.44
21F163	15A2PS1	44	600	23	.92	.56	.46
21F176	8A3PS1	66	250	45	1.04	.64	.52
21F180	15A3PS1	66	600	45	1.11	.68	.55
21F177	8A4PS1	88	250	67	1.06	.65	.53
21F178	8A5PS1	110	250	89	1.21	.74	.61
21F181	15A5PS1	110	600	89	1.32	.82	.67
21F166	8A6PS1	132	250	111	1.22	.75	.61
21F167	15A6PS1	132	500	111	1.32	.82	.67
21F179	8A7PS1	154	250	133	1.23	.76	.62
21F168	15A7PS1	154	500	133	1.34	.83	.68

MINIATURE SELENIUM RECTIFIERS

Stk No.	Type	DCMA	Max. RMS Voltage	1-5	6-up
21F215	1015	150	25	1.20	.90
21F211	1016	300	25	1.35	.95
21F210	1017	600	25	1.56	1.10
21F214	1159	20	130	.65	.65
21F248	1001	75	25	.44	......
21F200	1002A	65	130	.64	.65
21F201	1003A	75	130	.71	.65
21F202	1004A	100	130	.79	.80
21F203	1005A	150	130	.94	.90
21F216	1007	75	160	2.32	......
21F209	1013	450	18	.73	......
21F219	1014	100	160	1.59	......
21F190	1234AH*	65-75	130	.59	.55
21F191	1235AH*	100-150	130	.68	.65
21F207	1237AH*	450-500	130	1.47	1.25

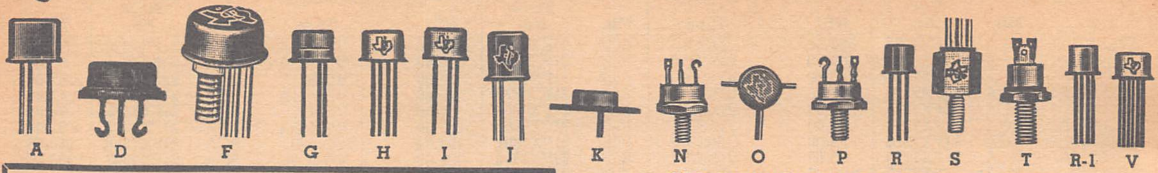
*Hi density type

I.T.T. SELENIUM DUAL DIODE

Use these dual selenium diodes as exact replacement horizontal phase detectors in TV sets. Have 1½ inch tinned leads. Size: 5/16" wide, 7/16" high, and 3/32" thick. Wt., 4 oz.

Stk. No.	Mfg. Type	Equivalent Types	1-4	5-99	100 up
21F245	K-1615	IRC D4, GE 6GC-1	.55	.50	.45
21F246	K-1616	IRC D5, GE 6GD-1	.55	.50	.45
21F247	K-1617	GE 6GX-1	.55	.50	.45

TEXAS INSTRUMENTS SEMICONDUCTORS



SPECIAL MILITARY DESIGNATED SEMICONDUCTORS

When ordering Special Military Designated units, two (2) copies of your Purchase Order must be sent to NEWARK.

Type	Mil. Spec.	1-99	100-999
JAN 1N251	MIL-E-1/1023	1.90	1.20
JAN 1N253	MIL-S-19500/194	1.28	.85
JAN 1N254	MIL-S-19500/194	1.34	.89
JAN 1N255	MIL-S-19500/194	2.06	1.37
JAN 1N256	MIL-S-19500/194	2.94	1.96
JAN 1N457	MIL-E-1/1026	2.40	1.85
JAN 1N458	MIL-E-1/1026	2.60	2.08
JAN 1N459	MIL-E-1/1026	3.00	2.40
USN 1N483B	MIL-S-19500/118	2.60	1.90
JAN 1N538	MIL-E-1/1084A	.75	.50
JAN 1N540	MIL-E-1/1085A	1.05	.70
JAN 1N547	MIL-E-1/1083A	1.52	1.01
USA 1N643	MIL-E-1/1171	2.20	1.62
USAF 1N645	MIL-E-1/1143	1.55	1.00
USAF 1N646	MIL-E-1/1143	2.25	1.21
USAF 1N647	MIL-E-1/1143	3.25	1.56
USAF 1N648	MIL-E-1/1143	3.95	2.28
USAF 1N649	MIL-E-1/1143	4.60	3.05
USA 1N662	MIL-E-1/1139	1.14	.80
USA 1N663	MIL-E-1/1140	1.54	1.13
USN 1N914	MIL-S-19500/116	2.40	1.90
USN 1N1124A	MIL-S-19500/104	3.58	2.92
USN 1N1126A	MIL-S-19500/104	6.26	5.13
USN 1N1128A	MIL-S-19500/104	11.01	8.99
USN 1N3064	MIL-S-19500/144	3.55	2.80
USN 2N117	MIL-T-19500/35	8.45	5.65
JAN 2N118	MIL-T-19500/2	9.15	6.35
USN 2N119	MIL-T-19500/35	11.45	7.55
USN 2N332	MIL-T-19500/37A	4.95	3.30
USN 2N333	MIL-T-19500/37A	4.95	3.30
USN 2N334	MIL-T-19500/37A	4.95	3.30
USN 2N335	MIL-T-19500/37A	5.25	3.50
USN 2N337	MIL-T-19500/69C	5.15	3.40
USN 2N338	MIL-T-19500/69C	5.95	3.85
USN 2N388	MIL-T-19500/65	.61	.41
USN 2N389	MIL-S-19500/173	43.35	28.90
USAF 2N404	MIL-T-19500/20	.50	.33
USN 2N424	MIL-S-19500/173	34.35	22.90
JAN 2N497	MIL-T-19500/74	9.30	6.20
JAN 2N498	MIL-T-19500/74	11.80	7.85
JAN 2N656	MIL-T-19500/74	10.30	6.85
JAN 2N657	MIL-T-19500/74	10.50	7.00
USA 2N696	MIL-S-19500/99A	5.60	3.75
USA 2N697	MIL-S-19500/99A	6.55	4.35
USA 2N702	MIL-S-19500/153	12.90	8.60
USA 2N703	MIL-S-19500/153	16.35	10.90
USN 2N705	MIL-S-19500/86	3.00	2.00
USA 2N706	MIL-S-19500/120	5.40	3.60
USN 2N1039	MIL-S-19500/89	4.50	3.00
USN 2N1041	MIL-S-19500/89	16.50	11.00
USA 2N1042	MIL-S-19500/137	6.00	4.00
USA 2N1043	MIL-S-19500/137	9.75	6.50
USA 2N1044	MIL-S-19500/137	14.25	9.50
USA 2N1045	MIL-S-19500/137	18.75	12.50
USN 2N1302	MIL-S-19500/126A	.51	.34
USN 2N1303	MIL-S-19500/126A	.51	.34
USN 2N1304	MIL-S-19500/126A	.63	.43
USN 2N1305	MIL-S-19500/126A	.63	.43
USN 2N1306	MIL-S-19500/126A	.84	.57
USN 2N1307	MIL-S-19500/126A	.84	.57
USN 2N1308	MIL-S-19500/126A	1.17	.79
USN 2N1309	MIL-S-19500/126A	1.17	.79
USA 3N35	MIL-S-19500/80A	24.38	16.25

Write NEWARK-CHICAGO for our Bi-Monthly Special Military Designated Semiconductor Inventory.

FIELD EFFECT TRANSISTORS—SILICON PLANAR

Stk. No.	Type	Case	Pwr.-Diss.-Watts Case 25°C	BVdgo Typ	Id. (on) (ma)	Max.	1-99	100-999
21FX5944	2N2497	I	1.5	....	@Vds=—10v Vgs=0	3	44.63	29.75
21FX5945	2N2498	I	1.5	....	@Vds=—10v Vgs=0	6	36.75	24.50
21FX5946	2N2499	I	1.5	....	@Vds=—10v Vgs=0	15	47.25	31.50
21FX5947	2N2500	I	1.5	....	@Vds=—10v Vgs=0	6	68.00	52.95
20F5256	2N2386	I	1.5	....	@Vds=—10v Vgs=0		37.50	25.00

GROWN UNIJUNCTION SILICON TRANSISTORS

Stk. No.	Type	Case	Absolute Max. Ratings @TA=25°C Interbase Voltage-V	Absolute Max. Ratings @TA=25°C Device Diss. Watts	1-99	100-999
20F5282	2N489	R	Vbb(max)=65	.600**	7.10	4.75
21FX5928	2N489A	R	Vbb(max)=65	.600**	7.65	5.10
21FX5929	2N489B	R	Vbb(max)=65	.600**	9.15	6.10
20F5283	2N490	R	Vbb(max)=65	.600**	7.80	5.26
21FX5930	2N490A	R	Vbb(max)=65	.600**	8.35	5.55
21FX5931	2N490B	R	Vbb(max)=65	.600**	9.85	6.55
20F5284	2N491	R	Vbb(max)=65	.600**	8.40	5.60
21FX5932	2N491A	R	Vbb(max)=65	.600**	8.90	5.95
21FX5933	2N491B	R	Vbb(max)=65	.600**	10.40	6.95
20F5285	2N492	R	Vbb(max)=65	.600**	9.80	6.55
21FX5934	2N492A	R	Vbb(max)=65	.600**	10.40	6.95
21FX5935	2N492B	R	Vbb(max)=65	.600**	11.90	7.95
20F5286	2N493	R	Vbb(max)=65	.600**	10.75	7.20
21FX5936	2N493A	R	Vbb(max)=65	.600**	11.20	7.50
21FX5937	2N493B	R	Vbb(max)=65	.600**	12.75	8.50
20F5287	2N494	R	Vbb(max)=65	.600**	10.90	7.30
21FX5938	2N494A	R	Vbb(max)=65	.600**	11.40	7.60
21FX5939	2N494B	R	Vbb(max)=65	.600**	12.90	8.50
20F5293	2N1671	R	Vbb(max)=35	.450***	2.95	1.98
20F5294	2N1671A	R	Vbb(max)=35	.450***	3.20	2.14
20F5295	2N1671B	R	Vbb(max)=35	.450***	3.55	2.36
20F5296	2N2160	R	Vbb(max)=35	.450***	2.50	1.68

** Denotes linearly to 175°C Free Air Temp. @ 4.0 mw/°C.
*** Denotes linearly to 150°C Free Air Temp. @ 3.9 mw/°C.

SWITCHING AND HIGH FREQUENCY TRANSISTORS

All are mesa except *grown junction, **PNP, ‡Black, ★Gold. †Collector in electrical contact with case.

Stk. No.	Type	Case	Pwr. Diss. W.	Icma	1-99	100-999
21F5082	2N337	I‡	0.125	20	4.85	3.20
21F5081	2N338	I‡	0.125	20	5.65	3.65
20F5140	2N2391	I	1.0	30	36.00	24.00
20F5198	2N2392	0	1.0	30	45.00	30.00
21F5154	2N702	0	0.600	50	12.90	8.60
21FX5602	2N703	R†	0.600	50	16.35	10.90
21FX5612	2N706	R†	1.0	......	4.74	3.16
21FX5613	2N706A	R†	1.0	......	5.40	3.60
21FX5954	2N706B	R†	1.0	......	5.40	3.60
21FX5176	2N726	R†	1.0	50	15.00	10.00
21FX5955	2N727	R†	1.0	50	25.00	16.65
21FX5798	2N743	R†	1.0	200	7.65	5.10
21FX5799	2N744	R†	1.0	200	8.25	5.50
21FX5614	2N753	R†	1.0	......	6.40	4.25
20F5143	2N849/ TI-430	0	1.0	30	8.10	5.40
20F5144	2N850/ TI-431	0	1.0	30	9.60	6.40
20F5138	2N851/ TI-422	0	1.0	200	11.50	7.65
20F5139	2N852/ TI-423	0	1.0	200	12.40	8.25
20F5235	2N2410	I†★	2.5	800	10.80	7.20
20F5236	2N2411	R†	1.0	100	18.00	12.00
20F5227	2N2412	R†	1.0	100	22.50	15.00
20F5238	2N2413	R†	1.0	200	11.55	7.70
21F5092	3N34	H	0.125	20	5.00	4.15
21F5179	3N35	H	0.125	20	22.50	15.00

LOW-LEVEL SWITCHING SILICON TRANSISTORS
DARLINGTON PLANAR

Stk. No.	Type	Case	Watts Case 25°C	BVceo (volts)	Min	1-99	100-999
21FX5957	2N997	R	2.0	Ic=10ma Ib=0	40	25.35	16.90

SMALL SIGNAL TRANSISTORS

Stk. No.	Type	Case	Pwr Diss-Wats *Case 25°C ♦25°C free air	Col. Cur. Ic ma	1-99	100-999
21F5004	2N117	A	0.150	25	8.15	5.45
21F5005	2N118	A	0.150	25	8.15	5.45
21F5006	2N118A	A	0.150	25	8.15	5.45
21F5007	2N119	A	0.150	25	11.05	7.35
21F5174	2N120	A	0.150	25	12.60	8.40
21F5076	2N332	I	0.150	25	4.65	3.10
20F5222	2N332A	I	0.500	25	4.95	3.30
21F5077	2N333	I	0.150	25	4.65	3.10
20F5223	2N333A	I	0.500	25	4.95	3.30
21F5078	2N334	I	0.150	25	4.65	3.10
20F5224	2N334A	I	0.500	25	4.95	3.30
20F5079	2N335	I	0.150	25	4.95	3.30

Continued on next page

TEXAS INSTRUMENTS TRANSISTORS

SMALL SIGNAL TRANSISTORS (Cont.)

*Case 25°C, ♦25°C free air.

Stk. No.	Type	Case	Pwr. Diss. Watts	Ic ma	1-99	100-999
20F5225	2N335A	I	0.500	25	5.25	3.50
21F5080	2N336	I	1.0*	25	6.00	4.00
20F5226	2N336A	I	1.0*	25	6.30	4.20
20F5136	2N2387	O	0.200	30	18.40	12.25
20F5137	2N2388	O	0.200	30	29.95	19.95
20F5271	2N473	I	0.200	25	3.45	2.50
20F5275	2N476	I	0.200	25	8.80	6.00
20F5276	2N477	I	0.200	25	9.80	6.55
20F5277	2N478	I	0.200	25	3.70	2.80
20F5288	2N541	I	0.200	25	6.20	4.10
20F5228	2N542	I	0.200	25	6.30	4.20
20F5289	2N543	I	0.200	25	8.10	5.40
20F5267	2N470	I	0.200	25	3.45	2.30
21FX5963	2N471	I	1.0*	25	5.60	3.75
20F5269	2N472	I	1.0*	25	7.45	4.95
20F5004	2N734	R	1.0*	50	8.95	5.95
20F5005	2N735	R	1.0*	50	8.95	5.95
20FX5619	2N736	R	1.0*	50	9.90	6.60
20F5297	2N736A	R	1.0*	100	9.90	6.60
21FX5779	2N738	R	1.0*	50	12.50	8.30
21FX5780	2N739	R	1.0*	50	12.50	8.30
21FX5781	2N740	R	1.0*	50	12.40	8.30
20F5151	2N760	R	1.0*	100	11.90	7.90
20F5152	2N760A	R	0.6*	100	14.95	9.95
21FX5785	2N780/TI-490	R	0.6*	50	10.95	7.30
20F5212	2N929	R	0.150	30	12.25	8.15
20F5213	2N930	R	0.150	30	19.90	13.30
21F5000	2N1149/903	A	0.150	25	8.65	5.75
21F5001	2N1150/904	A	0.150	25	8.65	5.75
21F5002	2N1151/904A	A	0.150	25	8.65	5.75
21F5003	2N1152/905	A	0.3♦	25	11.35	7.55
21F5184	2N1153/910	A	0.3♦	25	13.35	8.90
21FX5964	2N1247	I	0.150	5	18.50	12.35
21FX5965	2N1248	I	0.150	5	24.25	17.25
21FX5966	2N1276	I	0.150	25	3.85	2.55
20F5290	2N1277	I	0.150	25	4.25	2.84
20F5291	2N1278	I	1.2*	25	4.75	3.15
20F5292	2N1279	I	1.2*	25	5.60	3.70
21F5340	2N1564	I	1.2*	50	10.35	6.90
21F5341	2N1565	I	1.2*	50	10.35	6.90
21F5342	2N1566	I	1.2*	50	10.35	6.90
21FX5967	2N1556A	I	1.2*	100	10.35	6.90
21FX5782	2N1572	I	1.2*	50	12.60	8.40
21FX5783	2N1573	I	0.150	50	12.75	8.55
21FX5784	2N1574	I	0.150	50	13.65	9.15
21FX5968	2N2529	R	0.150	25	5.23	3.49
21FX5969	2N2530	R	0.150	25	5.23	3.49
21FX5970	2N2531	R	0.150	25	5.67	3.79
21FX5971	2N2532	R	0.150	25	6.26	4.17
21FX5972	2N2533	R	0.500	25	5.57	3.71
21FX5973	2N2534	R	0.150	25	5.90	3.93

ECONOMY POWER ALLOY

Stk. No.	Type	Case	Pwr. Diss.	Ic	BVcex min-v	Icbo ma.	hFE min.	1-99	100-999
21FX5974	TI-366	K	15w	3a	—60	—0.100	50	2.67	1.78
21FX5975	TI-367	K	15w	3a	—60	—0.200	30	2.34	1.56
21FX5976	TI-368	K	15w	3a	—45	—0.100	50	2.09	1.39
21FX5977	TI-369	K	15w	3a	—45	—0.200	30	1.76	1.17
21FX5978	TI-370	K	15w	3a	—30	—0.200	30	1.50	1.00
21FX5979	TI-366A	K	25w	3a	—60	—0.100	50	2.84	1.89
21FX5980	TI-367A	K	25w	3a	—60	—0.200	30	2.50	1.67
21FX5981	TI-368A	K	25w	3a	—45	—0.100	50	2.25	1.50
21FX5982	TI-369A	K	25w	3a	—45	—0.200	30	1.92	1.28
21FX5983	TI-370A	K	25w	3a	—30	—0.200	30	1.67	1.11

MEDIUM AND INTERMEDIATE POWER TYPES

Planar. *Grown Junction †Diffused Mesa—PNP §Epitaxial Planar
a-hfb b-hfe ††BVceo

Stk. No.	Type	Case	Diss. Watts	Ic ma	Value Max.	hfe @20mc	1-99	100-999
21F5011	2N243*	A	0.750	60	0.968a		13.75	9.15
21F5012	2N244*	A	0.750	60	0.989a		20.45	13.60
21F5083	2N339*	J	1	60	0.989a		10.15	6.75
21F5084	2N340*	J	1	60	0.989a		10.80	7.20
21F5085	2N341*	J	1	60	0.989a		17.50	11.65
21F5086	2N342*	J	1	60	0.97a		11.85	7.90
21F5088	2N342A*	J	1	60	0.97a		11.90	7.95
21FX5677	2N342B*	J	1	60	32b		16.75	11.20
21F5087	2N343*	J	1	60	0.989a		18.40	12.25
21FX5678	2N343B*	O	1	60	90b		22.40	14.90
20F5196	2N2389	O	2.0	600	120b	3.0	19.50	13.00
20F5197	2N2390	O	2.0	600	300b	3.0	33.65	15.75
20F5141	2N2393	O	1.2	300	45b	2.5	12.10	8.05
20F5142	2N2394	O	2.0	300	90b	3.	35.20	23.45
20F5145	2N2395	O	2.0	300	60b	2.0	22.00	14.50
20F5146	2N2396	O	2.0	300	120b	2.5	26.50	17.50
21FX5521	2N696	I	2		60b	2.0	5.60	3.75
21FX5522	2N697	I	2		120b	2.5	6.55	4.35
20F5001	2N698	I	2		60b	2.0	10.05	6.95
20F5002	2N699	I	2		120b	2.5	14.25	9.50
21FX5984	2N717	R	1.8		60b	2.0	5.60	3.75
21FX5985	2N718	R	1.8		120b	2.5	6.55	4.35
20F5257	2N718A	R	1.8		120b	3.0	13.10	8.75
20F5258	2N719	R	1.8		60b	2.0	10.05	6.95

CON'T. ON NEXT COLUMN

MEDIUM AND INTERMEDIATE POWER TYPES (Cont.)

Stk. No	Type	Case	Diss. Watts	Ic ma	Value Max.	hfe @20mc	1-99	100-999
21FX5986	2N719A	R	1.8		60b	2.0	11.10	7.40
20F5259	2N720	R	1.8		120b	2.5	14.25	9.50
21FX5987	2N720A	R	1.8		120b	2.5	17.10	11.40
21FX5988	2N721†	R	1.5		45b	2.5	8.00	5.35
21FX5989	2N722†	R	1.5		90b	3.0	20.90	15.65
21F5318	2N730	R	1.5		60b	2.0	5.60	3.75
21F5319	2N731	R	1.5		120b	2.5	6.55	4.35
20F5260	2N870	R	1.8		120b	2.5	15.45	10.30
21FX5990	2N871	R	1.8		300b	3.0	18.45	12.30
21FX5897	2N1131†	I	2		45b	2.0	8.00	5.35
21FX5797	2N1132†	I	2		90b	2.5	20.90	15.65
21F5008	2N1154/951*	A	0.750	60	1.0a		12.65	8.40
21F5009	2N1155/952*	A	0.750	50	1.0a		13.15	8.80
21F5010	2N1156/953*	A	0.750	40	1.0a		17.65	11.75
21FX5680	2N1252§	I	2		45b	2.0	7.00	4.65
21FX5681	2N1253§	I	2		90b	2.5	11.95	7.95
21FX5679	2N1507	I	2		300b	2.5	7.95	5.30
21FX5991	2N1613	I	3.0		120b	3.0	13.10	8.75
20F5262	2N1711	I	3.0		300b	3.5	15.75	10.50
20F5264	2N1889	I	3.0		120b	2.5	15.45	10.30
20F5265	2N1890	I	3.0		300b	3.0	18.45	12.30
20F5263	2N1893	I	3.0		120b	2.5	17.10	11.40

POWER TYPES

Diffused Mesa—*BVcer †BVcex

Stk. No.	Type	Case	Diss. Watts	Ic ma	HFE Max.	BV ceo	1-99	100-999
21F5089	2N389	D	85 @ 25°C 45 @ 100°C	2a	60	60*	42.00	28.00
21F5175	2N424	D	85 @ 25°C 45 @ 100°C	2a	60	80*	33.00	22.00
21F5150	2N497	I	4 @ 25°C		36	60	33.00	22.00
21FX5992	2N497A	I	5 @ 25°C		36	60	33.00	22.00
21F5151	2N498	I	4 @ 25°C		36	100	8.85	5.90
21FX5993	2N498A	I	5 @ 25°C		36	100	8.95	5.95
21F5172	2N656	I	4 @ 25°C		90	60	11.35	7.55
21FX5994	2N656A	I	5 @ 25°C		90	60	11.45	7.60
21F5173	2N657	I	4 @ 25°C		90	100	9.85	6.55
21FX5995	2N657A	I	5 @ 25°C		90	100	9.95	6.60
21F5180	2N1047	F	40 @ 25°C	500	36	80†	10.05	6.70
21FX5682	2N1047A	F	40 @ 25°C	500	36	80	10.15	6.75
20F5250	2N1047B	F	40 @ 25°C	750	36	80	23.35	16.90
21F5181	2N1048	F	40 @ 25°C	500	36	120†	23.95	17.30
21FX5683	2N1048A	F	40 @ 25°C	500	36	120	32.95	21.95
20F5251	2N1048B	F	40 @ 25°C	750	36	120	38.35	25.55
21F5182	2N1049	F	40 @ 25°C	500	90	80†	29.95	19.95
21FX5684	2N1049A	F	40 @ 25°C	500	90	80	29.95	19.95
20F5252	2N1049B	F	40 @ 25°C	750	90	80	33.75	22.50
21F5183	2N1050	F	40 @ 25°C	500	90	120†	41.85	27.90
21FX5685	2N1050A	F	40 @ 25°C	500	90	120	41.85	27.90
20F5253	2N1050B	F	40 @ 25°C	750	90	120	47.05	31.35
21FX5686	2N1690	F	40 @ 25°C	500	60	80	28.10	18.70
21FX5687	2N1691	F	40 @ 25°C	500	60	120	40.80	27.20
21FX5769	2N1714	G	10w @ 100°C	1a	60	60	17.10	11.40
21FX5770	2N1715	G	10w @ 100°C	1a	60	100	22.95	15.30
21FX5771	2N1716	G	10w @ 100°C	1a	120	60	19.45	12.95
20F5006	2N1717	G	10w @ 100°C	1a	120	100	25.50	17.00
21FX5772	2N1718	S	10w @ 100°C	1a	60	60	17.95	11.95
21FX5773	2N1719	S	10w @ 100°C	1a	60	100	23.75	15.85
21FX5774	2N1720	S	10w @ 100°C	1a	120	60	20.25	13.50
20F5007	2N1721	S	10w @ 100°C	1a	120	100	26.40	17.60
21FX5775	2N1722	D	25 @ 100°C	7.5a	90	80	67.25	44.75
21FX5817	2N1724	N	25 @ 100°C	7.5a	90	80	69.00	46.00
20F5254	2N2150	T	50w @ 100°C	2a	60	80	35.85	23.90
20F5255	2N2151	T	50w @ 100°C	2a	120	80	39.75	26.50

POWER TYPES

Stk. No.	Type	Case	Pwr. Dis. (w)	Ic	BV ceo	1-24	25-99	100-999
21FX5881	2N1936	P	100w @ 125°C	20a	60	130.00	112.00	88.00
21FX5880	2N1937	P	100w @ 125°C	20a	80	172.00	150.00	115.00

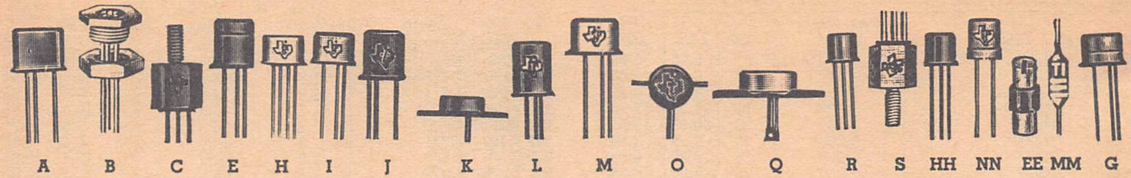
MEDIUM POWER GENERAL PURPOSE ALLOY TRANSISTORS

Stk. No.	Type	Case	Pwr. Diss.	Ic	BVcbo min-v	Icbo max. ma	hFE min	1-99	100-999
21F5120	2N1038	B,C,E	20w	3a	—40	—0.125	20	2.85	1.90
21F5121	2N1039	B,C,E	20w	3a	—60	—0.125	20	3.75	2.50
21F5122	2N1040	B,C,E	20w	3a	—80	—0.125	20	11.25	7.50
21F5123	2N1041	B,C,E	20w	3a	—100	—0.125	20	15.75	10.50
21F5124	2N1042	B,C,E	20w	3a	—40	—0.125	20	5.25	3.50
21F5167	2N1043	B,C,E	20w	3a	—60	—0.125	20	9.00	6.00
21F5168	2N1044	B,C,E	20w	3a	—80	—0.125	20	13.50	9.00
21F5169	2N1045	B,C,E	20w	3a	—100	—0.125	20	18.00	12.00

POWER-GENERAL PURPOSE ALLOY

Stk. No.	Type	Case	Pwr. Diss.	Ic	BVcbo min-v	Icbo ma	hFE min	1-99	100-999
21F5059	2N250	K	25w	3a	—30	—1.0	30	1.90	1.25
21F5060	2N251	K	25w	3a	—60	—2.0	30	2.25	1.50
21FX5672	2N456A	K	90w	7a	—40	—0.5	30	2.60	1.75
21FX5673	2N457A	K	90w	7a	—60	—0.5	30	3.30	2.20
21FX5674	2N458A	K	90w	7a	—80	—0.5	30	4.70	3.15
21F5170	2N1021	K	90w	7a	—100	—0.5	30	6.20	4.15
21F5171	2N1022	K	90w	7a	—120	—0.5	30	9.75	6.50

TEXAS INSTRUMENTS TRANSISTORS



HIGH FREQUENCY ALLOY DIFFUSED

Stk. No.	Type	Case	Pwr. Diss.	Ic	BVcbo min-v	Icbo max. ma	hFE min	1-99	100-999
21F5119	2N1046	K	150w	10a	—100	—1.0	40	10.00	6.70
20F5335	2N1046A	K	150w	15a	—130	—1.0	20	18.35	12.25
21F5344	2N1046B	K	150w	15a	—130	—1.0	10	25.00	16.70
21FX5809	2N1907	K	150w	20a	—100	—0.3	10	9.00	6.00
21FX5810	2N1908	K	150w	20a	—130	—0.3	10	13.00	8.70

HIGH POWER-GENERAL PURPOSE ALLOY

Stk. No.	Type	Case	Pwr. Diss.	Ic	BVcbo min-v	Icbo max. ma	hFE min	1-99	100-999
21FX5500	2N511	Q	150w	25a	—40	—2.0	20	4.50	3.00
21FX5501	2N511A	Q	150w	25a	—60	—2.0	20	5.25	3.50
21FX5502	2N511B	Q	150w	25a	—80	—2.0	20	6.45	4.30
21FX5503	2N512	Q	150w	25a	—40	—2.0	20	5.25	3.50
21FX5504	2N512A	Q	150w	25a	—60	—2.0	20	6.00	4.00
21FX5505	2N512B	Q	150w	25a	—80	—2.0	20	7.95	5.30
21FX5506	2N513	Q	150w	25a	—40	—2.0	20	6.00	4.00
21FX5507	2N513A	Q	150w	25a	—60	—2.0	20	6.65	4.45
21FX5508	2N513B	Q	150w	25a	—80	—2.0	20	8.70	5.80
21FX5509	2N514	Q	150w	25a	—40	—2.0	20	8.25	5.50
21FX5510	2N514A	Q	150w	25a	—60	—2.0	20	8.40	5.60
21FX5511	2N514B	Q	150w	25a	—80	—2.0	20	12.00	8.00

INDUSTRIAL TYPE TRANSISTORS

† Diffused Mesa § Grown Junction *BVcex

Stk. No.	Type	Case	Pwr. Diss. Watts	hFE		BVcbo* min	1-99	100-999
				Ic ma	Val. Max			
21FX5794	TI-482†	I	2@25°C	500	......	20	2.15	1.65
21FX5795	TI-483†	I	2@25°C	500	60	40	2.40	1.85
21FX5796	TI-484†	I	2@25°C	500	120	40	2.95	2.25
20F5009	TI-485†	R	1@25°C	50	60	20	3.25	2.50
20F5010	TI-486†	G	10@100°C	1a	80	80	5.00	3.85
20F5011	TI-487†	S	10@100°C	1a	80	80	5.65	4.35
21FX5788	TI-492§	I	0.150@25°C	25	45	40	1.55	1.20
21FX5789	TI-493§	I	0.125@25°C	20	45	40	1.90	1.45
21FX5790	TI-494§	I	0.125@25°C	20	125	40	2.50	1.90
21FX5791	TI-495§	I	0.125@25°C	20	250	40	3.00	2.30
20F5012	TI-496§	J	0.6@25°C	60	......	65*	1.75	1.35

INDUSTRIAL TYPES

Grown Junction * all hfe

Stk. No.	Type	Case	Pwr. Diss. Watts 8.05	hFE		BVcbo* min	1-99	100-999
				Ic ma	Val. Max			
21FX5650	2N1586/J-503	A	0.150	25	27*	15	6.20	4.15
21FX5651	2N1587/J-504	A	0.150	25	27	30	7.15	4.75
21FX5652	2N1588/J-505	A	0.150	25	27	60	8.75	5.35
21FX5653	2N1589/J-506	A	0.150	25	75	15	6.95	4.65
21FX5654	2N1590/J-507	A	0.150	25	75	30	8.10	5.40
21FX5655	2N1591/J-508	A	0.150	25	75	60	9.15	6.10
21FX5656	2N1592/J-509	A	0.150	25	210	15	7.75	5.15
21FX5657	2N1593/J-510	A	0.150	25	210	30	9.05	6.05
21FX5658	2N1594/J-511	A	0.150	25	210	60	10.30	6.85
21FX5792	TI-480	J	0.6@25°C	60	36	50	1.55	1.20
21FX5793	TI-481	J	0.6@25°C	60	36	80	1.90	1.45

HIGH FREQUENCY SMALL SIGNAL

All Mesa, except (*) Epitaxial Mesa

Stk. No.	Type	Case	Pwr Diss 25°C free air mw	Coll Voltage Volts	HFE		1-99	100-999
					min	max		
21F5320	2N1141*	M	300	35	12	(db)	10.12	6.75
21F5321	2N1142*	M	300	30	10	(db)	9.45	6.30
21F5322	2N1143*	M	300	25	8	(db)	6.38	4.25
21FX5527	2N1195*	M	225	30	12	(db)	6.65	4.42
21FX5690	2N1405	H	75	30	8	(db)	11.80	7.90
21FX5691	2N1406	H	75	30	8	(db)	7.30	4.88
21FX5692	2N1407	H	75	30	6	9(db)	6.95	4.65
20F5241	2N2363	R	75	30	8	(db)	4.50	3.00
20F5239	2N2415	R	75	15	2.5	......	52.50	35.00
20F5240	2N2416	R	75	15	2.0	......	37.50	25.00

SMALL SIGNAL

*Alloy Mesa, †Alloy diffused, others Mesa

Stk. No.	Type	Case	Pwr Diss 25°C free..air mw	Coll Voltage volts	HFE Value		1-99	100-999
					min	max		
20F5175	TI-363*	L	150	30	35	......	.85	.57
20F5176	TI-364*	L	150	30	20	......	.78	.52
20F5177	TI-365*	L	150	30	30	240	1.50	1.00
20F5188	TI-388*	L	150	30	35	......	1.20	.80
20F5189	TI-389*	L	150	30	20	......	1.20	.80
20F5336	TI-390	H	75	30	10	......	2.04	1.36
20F5337	TI-391	H	75	30	10	......	1.85	1.23
20F5338	TI-392	H	75	30	5	......	1.77	1.18
20F5339	TI-393	H	75	30	5	......	1.52	1.01
20F5190	TI-395*	L	150	30	.....	220	1.41	.95
20F5191	TI-396*	L	150	45	.....	220	2.51	1.67
20F5192	TI-397*	L	150	35	35	......	.92	.61
20F5193	TI-398*	L	150	35	30	......	.87	.58
20F5194	TI-399*	L	150	35	20	......	.87	.58
21FX5666	2N1398	H	50	30	10	......	10.50	7.00
21FX5667	2N1399	H	50	30	3.5	......	8.25	5.50
21FX5668	2N1400	H	50	30	5	12	4.74	3.16
21FX5669	2N1401	H	50	30	5	......	4.74	3.16
21FX5670	2N1401A	H	50	30	10	......	6.60	4.40
21FX5671	2N1402	H	50	30	3.5	......	4.38	2.92
20F5205	2N2188†	L	125	40	40	90 typ	1.27	.85
20F5206	2N2189†	L	125	40	60	135 typ	1.64	1.09
20F5207	2N2190†	L	125	60	40	90 typ	1.47	.98
20F5208	2N2191†	L	125	60	60	135 typ	1.86	1.23

GENERAL PURPOSE (ALLOY) TRANSISTORS

21F5057	TI-376	L	150	20	60	150	.71	.49
20F5347	TI-377	L	150	20	30	75	.70	.47
21F5164	TI-320	L	100	30	19	49	1.50	1.00
20F5174	TI-321	L	100	30	49	142	1.66	1.10
21FX5542	2N1273	I	150	15	30	150	.67	.44
21FX5536	2N1274	I	150	25	30	150	.69	.46
21FX5543	2N1370	I	150	25	50	150	.72	.48
21FX5535	2N1371	I	150	45	50	150	1.14	.76
21FX5544	2N1372	I	250	25	30	95	.82	.54
21FX5545	2N1373	I	250	45	30	95	1.20	.80
21FX5546	2N1374	I	250	25	50	150	1.02	.68
21FX5547	2N1375	I	250	45	50	150	1.39	.92
21FX5548	2N1376	I	250	25	75	150	1.29	.86
21FX5549	2N1377	I	250	45	75	150	1.50	1.00
21FX5593	2N1378	I	250	12	95	300	1.29	.86
21FX5594	2N1379	I	250	25	95	300	1.44	.96
21FX5595	2N1380	I	250	12	30	300	.67	.44
21FX5596	2N1381	I	250	25	30	300	.72	.48
21FX5597	2N1382	I	200	25	50	150	.99	.66
21FX5598	2N1383	I	200	25	30	150	.92	.61

CORE DRIVER ALLOY

Stk. No.	Type	Case	Pwr. Diss.	Ic	BVcbo min-v	Icbo max. ma	hFE min.	ft min.	1-99	100-999
27FX5896	2N2001	I	300 mw	1a	—30	—6μa	60	6 mc	2.75	1.83

SWITCHING TRANSISTORS

*Bi-directional. All alloy.

Stk. No.	Type	Case	Pwr. Dis. Case 25°C ◆25°C free air mw	Coll. Cur. ma	BVcbo min-v	hfe Value		1-99	100-999
						min.	max.		
20F5209	2N388	I	150◆	200	+25	60	180	.60	.40
20F5210	2N388A	I	150◆	200	+40	60	180	2.57	1.71
21FX5523	2N395	I	150◆	250	—30	20	150	.67	.44
21FX5524	2N396	I	150◆	250	—30	30	150	.84	.56
21FX5525	2N397	I	150◆	250	—30	40	150	1.34	.89
20F5150	2N404	I	150◆	100	—25	30	......	.50	.33
20F5211	2N404A	I	150◆	150	—40	30	......	.85	.57
21FX5883	2N426	I	150◆	400	—30	30	60	1.05	.70
21FX5884	2N427	I	150◆	400	—30	40	80	1.17	.78
21FX5885	2N428	I	150◆	400	—30	60	......	1.80	1.20
20F5229	2N524	I	225◆	500	—30	25	42	1.35	.90
20F5230	2N525	I	225◆	500	—30	34	65	1.65	1.10
20F5231	2N526	I	225◆	500	—30	53	90	1.65	1.10
20F5232	2N527	I	225◆	500	—30	72	121	1.99	1.27

(Continued on next page)

TEXAS INSTRUMENTS SEMICONDUCTORS

SWITCHING TRANSISTORS (Cont.)

*Bi-directional. All alloy, except (†) mesa, (‡) epitaxial mesa, (★) alloy diffused.

Stk. No.	Type	Case	Pwr. Dis. Case 25°C free air mw	Call. Cur. Ma.	BVobo min-v	hfe Value		1-99	100-999
						min	max.		
21FX5886	2N594*	I	150◆	300	+20	20	......	2.76	1.83
21FX5887	2N595*	I	150◆	300	+20	35	......	4.26	2.83
21FX5888	2N596*	I	150◆	300	+20	50	......	5.66	3.76
21F5153	2N705†	R	150◆	50	—15	25	......	2.48	1.65
21FX5526	2N710†	R	150◆	50	—15	25	......	2.48	1.65
21FX5559	2N711†	R	150◆	50	—12	20	......	1.45	.97
20F5003	2N711A†	R	150◆	100	—15	25	150	1.45	.97
20F5155	2N711B†	R	150◆	100	—18	30	150	1.56	1.02
20F5243	2N797†	R	150◆	150	20	40	......	4.58	3.05
20F5458	2N960‡	R	150◆	150	—15	20	......	3.85	2.56
20F5156	2N961‡	R	150◆	150	—12	20	......	3.15	2.10
20F5157	2N962‡	R	150◆	150	—12	20	......	2.40	1.60
20F5158	2N964‡	R	150◆	150	—15	40	......	5.25	3.50
20F5159	2N965‡	R	150◆	150	—12	40	......	4.11	2.74
20F5160	2N966‡	R	150◆	150	—12	40	......	3.75	2.50
20F5460	2N967‡	R	150◆	150	—12	40	......	2.85	1.90
20F5153	2N985‡	R	150◆	200	—15	60	......	4.11	2.74
20F5233	2N1300★	I	150◆	100	—13	30	......	1.84	1.21
20F5234	2N1301★	I	150◆	100	—13	30	......	2.50	1.67
21F5330	2N1302	I	150◆	300	+25	20	......	.50	.33
21F5331	2N1303	I	150◆	300	—30	20	......	.50	.33
21F5332	2N1304	I	150◆	300	+25	40	200	.61	.41
21F5333	2N1305	I	150◆	300	—30	40	200	.61	.41
21F5334	2N1306	I	150◆	300	+25	60	300	.80	.53
21F5335	2N1307	I	150◆	300	—30	60	300	.80	.53
21F5336	2N1308	I	150◆	300	+25	80	......	1.12	.74
21F5337	2N1309	I	150◆	300	—30	80	......	1.12	.74
21FX5689	2N1404	I	150◆	300	—25	....	......	.63	.42
20F5261	2N1605	I	150◆	100	+25	40	......	1.09	.72
20F5008	2N1808	I	150◆	300	+25	....	......	.67	.44
21FX5889	2N1994*	I	150◆	300	30	15	......	2.32	1.55
21FX5890	2N1995*	I	150◆	300	25	25	......	3.77	2.50
21FX5891	2N1996*	I	150◆	300	20	35	......	5.16	3.43
21FX5892	2N1997	I	250◆	500	—45	40	200	1.98	1.31
21FX5893	2N1998	I	250◆	500	—35	50	160	2.55	1.70
21FX5894	2N1999	I	250◆	500	—30	75	250	3.45	2.29
21FX5895	2N2000	I	300◆	1a	—50	50	300	3.00	2.00

GALLIUM ARSENIDE VARACTOR DIODES

Stk. No.	Type	Case	Min. BVr @ Ir=10μa	Total Capacitance* f=1mo —Vr=Ov		1-99	100-999
				Min.	Max.		
21FX5750	XD500	EE	6 volts	.5	1.4 pf	170.00	140.00
21FX5751	XD501	EE	6 volts	.5	1.4 pf	280.00	240.00
21FX5752	XD502	EE	6 volts	.5	1.4 pf	400.00	329.00

Stk. No.	Type	Case	Min. BVr @ Ir=10αα	Total Capacitance* f=1mo—Vr=Ov		1-10	11-99
				Max.	Min.		
20F5363	A-600	EE	8 volts	.45	1.0 pf	225.00	175.00
20F5364	A-601	EE	8 volts	.45	1.0 pf	325.00	290.00
20F5365	A-602	EE	8 volts	.45	1.0 pf	425.00	400.00
20F5366	A-610	SS	8 volts	.45	1.0 pf	225.00	175.00
20F5367	A-611	SS	8 volts	.45	1.0 pf	325.00	290.00
20F5368	A-612	SS	8 volts	.45	1.0 pf	425.00	400.00

* Case type EE has a case capacitance of 0.28 pf.
Case type SS has a case capacitance of 0.27 pf.

GALLIUM ARSENIDE SAMPLING DIODES

Stk. No.	Type	Case	Min. BVr @ 10μA	Max. Ir @ —2V	Max. Cr @ f=1 mc, 0 Bias	1-99
20F5369	A-670	VV	10V	1.0 nA	.8 pf	5.00
20F5370	A-671	VV	10V	1.0 nA	.6 pf	6.00

HIGH CONDUCTANCE GENERAL PURPOSE SILICON DIODES

Stk. No.	Type	Case	BVr Ir= 100μa	Min. DC Fwd I @ 25°C ma@1v	P @ 25°C mw	1-99	100-999
21F5099	1N645	MM	275	400	600	1.50	.93
21FX5675	1N645A	MM	275	400	600	3.63	2.66
21F5100	1N646	MM	360	400	600	2.00	1.10
21F5101	1N647	MM	480	400	600	3.00	1.38
21F5102	1N648	MM	600	400	600	3.70	2.08
21F5103	1N649	MM	720	400	600	4.20	2.72

GALLIUM ARSENIDE TUNNEL DIODES—Case HH

Stk. No.	Type	Ip @ 25°C ma	Ip/Iv @ 25°C	Capacitance @Vv@25°C μμf	1-99	100-999
20F5467	XA-650	10 (±10%)	≥ 15:1	25 (typ)	4.35	3.65
20F5468	XA-651	10 (±3%)	≥ 10:1	25 (typ)	4.35	3.65
20F5469	XA-652	5 (±10%)	≥ 5:1	35 (typ)	4.35	3.65
20F5470	XA-653	5 (±10%)	≥ 5:1	35 (typ)	4.35	3.65

VOLTAGE REGULATOR DIODES

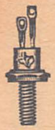
Stk. No.	Type	Case	Vz	Power Diss		Max Zz Ohms	1-99	100-999
				25°C	150°C			
21FX5833	1N703†	MM	3 — 3.9	400	100	55	2.60	2.10
21FX5834	1N704†	MM	3.7— 4.5	400	100	55	2.60	2.10
21FX5835	1N705†	MM	4.3— 5.4	400	100	35	2.60	2.10
21FX5836	1N706†	MM	5.2— 6.4	400	100	20	2.60	2.10
21FX5837	1N707†	MM	6.2— 8	400	100	10	2.60	2.10
21FX5839	1N709†	MM	6.2	400	100	4.1	2.60	2.10
21FX5840	1N710†	MM	6.8	400	100	4.7	2.60	2.10
21FX5841	1N711†	MM	7.5	400	100	5.3	2.60	2.10
21FX5842	1N712†	MM	8.2	400	100	6.0	2.60	2.10
21FX5843	1N713†	MM	9.1	400	100	7	2.60	2.10
21FX5844	1N714†	MM	10	400	100	8	2.60	2.10
21FX5845	1N715†	MM	11	400	100	9	2.60	2.10
21FX5550	1N746†	MM	3.3	400	100	28	2.60	2.10
21F5200	1N747†	MM	3.6	400	100	24	2.60	2.10
21F5201	1N748†	MM	3.9	400	100	23	2.60	2.10
21F5202	1N749†	MM	4.3	400	100	27	2.60	2.10
21F5203	1N750†	MM	4.7	400	100	19	2.60	2.10
21F5204	1N751†	MM	5.1	400	100	17	2.60	2.10
21F5205	1N752†	MM	5.6	400	100	11	2.60	2.10
21F5206	1N753†	MM	6.2	400	100	7	2.60	2.10
21F5207	1N754†	MM	6.8	400	100	5	2.60	2.10
21F5208	1N755†	MM	7.5	400	100	6	2.60	2.10
21F5209	1N756†	MM	8.2	400	100	8	2.60	2.10
21F5210	1N757†	MM	9.1	400	100	10	2.60	2.10
21F5211	1N758†	MM	10	400	100	17	2.60	2.10
21FX5591	1N759†	MM	12	400	100	30	2.60	2.10
21FX5861	1N761	MM	4.3— 5.4	400	100	55‡	2.10	1.90
21FX5862	1N762	MM	5.2— 6.4	400	100	20‡	2.10	1.90
21FX5863	1N763	MM	6.2— 8	400	100	8‡	2.10	1.90
21FX5864	1N764	MM	7.5—10	400	100	15‡	2.10	1.90
21FX5865	1N765	MM	9—12	400	100	50‡	2.10	1.90
21FX5866	1N766	MM	11—14.5	400	100	70‡	2.10	1.90
21F5030	650C	NN	3.7— 4.5	150	40		4.85	4.15
20F5472	651	NN	4.3— 5.4	150	40		4.35	3.65
20F5473	652	NN	5.2— 6.4	150	40		4.35	3.65
20F5474	653	NN	6.2— 8	150	40		4.35	3.65
21F5160	654C9	NN	8.5— 9.5	150	40		4.85	4.15
21F5161	655C9	NN	9.5—10.5	150	40		4.85	4.15
21F5039	650C0*	NN	3.7	150	40		4.85	4.15
21F5400	650C1*	NN	3.8	150	40		4.85	4.15
21F5401	650C2*	NN	3.9	150	40		4.85	4.15
21F5040	650C3*	NN	4.0	150	40		4.85	4.15
21F5402	650C4*	NN	4.1	150	40		4.85	4.15
21F5403	650C5*	NN	4.2	150	40		4.85	4.15
21F5404	650C6*	NN	4.3	150	40		4.85	4.15
21F5405	650C7*	NN	4.4	150	40		4.85	4.15
21F5041	651C0*	NN	4.5	150	40		4.85	4.15
21F5406	651C1*	NN	4.6	150	40		4.85	4.15
21F5407	651C2*	NN	4.7	150	40		4.85	4.15
21F5408	651C3*	NN	4.8	150	40		4.85	4.15
21F5409	651C4*	NN	4.9	150	40		4.85	4.15
21F5042	651C5*	NN	5.0	150	40		4.85	4.15
21F5410	651C6*	NN	5.1	150	40		4.85	4.15
21F5411	651C7*	NN	5.2	150	40		4.85	4.15
21F5412	651C8*	NN	5.3	150	40		4.85	4.15
21F-5413	651C9*	NN	5.4	150	40		4.85	4.15
21F5043	652C0*	NN	5.5	150	40		4.85	4.15
21F5414	652C1*	NN	5.6	150	40		4.85	4.15
21F5415	652C2*	NN	5.7	150	40		4.85	4.15
21F5416	652C3*	NN	5.8	150	40		4.85	4.15
21F5417	652C4*	NN	5.9	150	40		4.85	4.15
21F5158	652C5*	NN	6.0	150	40		4.85	4.15
21F5418	652C6*	NN	6.1	150	40		4.85	4.15
21F5419	652C7*	NN	6.2	150	40		4.85	4.15
21F5420	652C8*	NN	6.3	150	40		4.85	4.15
21F5421	652C9*	NN	6.4	150	40		4.85	4.15
21F5044	653C0*	NN	6.5	150	40		4.85	4.15
21F5422	653C1*	NN	6.6	150	40		4.85	4.15
21F5423	653C2*	NN	6.7	150	40		4.85	4.15
21F5424	653C3	NN	6.8	150	40		4.85	4.15
21F5045	653C4*	NN	7.0	150	40		4.85	4.15
21F5425	653C5*	NN	7.2	150	40		4.85	4.15
21F5426	653C6*	NN	7.4	150	40		4.85	4.15
21F5427	653C7*	NN	7.6	150	40		4.85	4.15
21F5428	653C8*	NN	7.8	150	40		4.85	4.15
21F5046	653C9*	NN	8.0	150	40		4.85	4.15
21FX5878	E-84*	MM	10	400	100	50‡	3.00	2.50
21FX5876	E-85*	MM	9	400	100	15‡	3.00	2.50
21FX5874	E-86*	MM	8	400	100	15‡	3.00	2.50
21FX5870	E-87*	MM	6	400	100	20‡	3.00	2.50
21FX5868	E-88*	MM	5	400	100	55‡	3.00	2.50
21FX5867	E-89*	MM	4.5	400	100	55‡	3.00	2.50
21FX5877	E-140*	MM	9.5	400	100	15‡	3.00	2.50
21FX5875	E-141*	MM	8.5	400	100	15‡	3.00	2.50
21FX5873	E-142*	MM	7.5	400	100	8‡	3.00	2.50
21FX5872	E-143*	MM	7	400	100	8‡	3.00	2.50
21FX5871	E-144*	MM	6.5	400	100	8‡	3.00	2.50
21FX5869	E-145*	MM	5.5	400	100	20‡	3.00	2.50
21FX5879	E-261*	MM	11	400	100	50‡	3.00	2.50
21FX5880	E-262*	MM	12	400	100	70‡	3.00	2.50

† Suffix A (±5% tolerance) * ±5% Tolerance ‡1ac=10% Iz.

STABISTORS

Stk. No.	Type	Case	If ma	Vr(max)	Vf @ 1 ma	Ir, μa @ -2v, 25°C	1-99	100-999
21FX5635	G-129	MM	250	10	0.56±10%	0.1	1.30	.85
21FX5636	G-130	MM	150	6	0.64±10%	0.1	1.30	.85

TEXAS INSTRUMENTS SEMICONDUCTORS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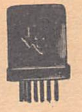
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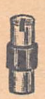
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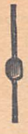
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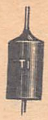
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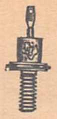
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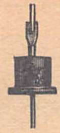
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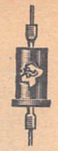
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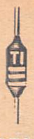
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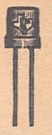
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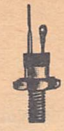
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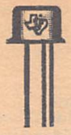
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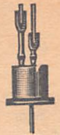
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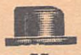
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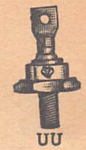
UU

GENERAL PURPOSE SILICON DIODES

Stk. No.	Type	Case	BVr Ir= 100µa	If @ 25°C ma@1v	P @ 25°C mw	1-99	100-999
21FX5570	1N456	MM	30	40	500	2.20	1.76
21FX5571	1N456A	MM	30	100	500	2.20	1.76
21FX5572	1N457	MM	70	20	500	2.40	1.85
21FX5573	1N457A	MM	70	100	500	2.40	1.85
21FX5574	1N458	MM	150	7	500	2.60	2.08
21FX5575	1N458A	MM	150	100	500	2.92	2.34
21FX5576	1N459	MM	200	3	500	3.00	2.40
21FX5577	1N459A	MM	200	100	500	4.20	3.35
21FX5578	1N461	MM	30	15	200	1.15	.90
21FX5579	1N462	MM	70	5	200	1.82	1.31
21FX5580	1N463	MM	200	1	200	1.95	1.49
21FX5581	1N464	MM	150	3	200	1.85	1.40
21FX5552	1N482	MM	40	100*	500	1.60	1.19
21FX5553	1N482A	MM	40	100	500	2.00	1.60
21FX5582	1N482B	MM	40	100	500	2.20	1.76
21FX5554	1N483	MM	80	100*	500	2.00	1.60
21FX5555	1N483A	MM	80	100	500	2.12	1.70
21FX5583	1N483B	MM	80	100	500	2.35	1.90
21FX5556	1N484	MM	150	100*	500	2.52	2.02
21FX5557	1N484A	MM	150	100	500	2.92	2.34
21FX5584	1N484B	MM	150	100	500	2.55	1.95
21FX5558	1N485	MM	200	100*	500	3.60	2.54
21FX5559	1N485A	MM	200	100	500	4.20	3.35
21FX5585	1N485B	MM	200	100	500	3.15	2.23
21FX5560	1N486	MM	250	100*	500	4.30	3.04
21FX5561	1N486A	MM	250	100	500	5.00	3.75
21FX5586	1N486B	MM	250	100	500	4.00	2.85
21FX5562	1N487	MM	330	100*	500	6.60	4.67
21FX5563	1N487A	MM	330	100	500	5.05	3.57
21FX5564	1N488	MM	420	100*	500	1.75	1.45
21FX5565	1N488A	MM	420	100	500	8.00	5.68
20F5358	1N3575	MM	80	100	250	2.30	1.87
20F5359	1N3576	MM	150	100	250	2.73	2.22
20F5360	1N3577	MM	200	100	250	3.00	2.31
20F5361	1N3578	MM	250	100	250	1.94	1.58
20F5362	1N3579	MM	300	100	250	3.60	2.94
21F5017	600C	NN	30	3	150	3.25	2.66
21F5018	601C	NN	50	10	150	3.25	2.66
21F5019	604C	NN	5.5	60	150	3.25	2.66
21F5020	606C	NN	7.5	35	150	3.30	2.70
21F5021	608C	NN	11	25	150	3.40	2.78
21F5022	610C	NN	17	20	150	3.50	2.86
21F5023	612C	NN	25	20	150	3.60	2.94
21F5024	614C	NN	37	20	150	3.60	2.94
21F5025	616C	NN	52	10	150	3.65	2.99
21F5026	618C	NN	75	10	150	3.70	3.03
21F5027	620C	NN	110	10	150	3.75	3.07
21F5028	622C	NN	170	7	150	.95	.66
21F5029	624C	NN	250	3	150	.73	.56
21FX5905	G-01†	MM	125	200	......	.95	.66
20F5014	G-02†	MM	65	50	......	.73	.56
20F5015	G-222†	MM	125	250@1.1v	......	.75	.65
20F5017	G-296†	MM	250	250@1.1v	......	.85	.70

* Measured at 1.1V. † White dot indicates cathode end of unit.

SILICON COMPUTER DIODES

Stk. No.	Type	Case	BVr	Max. Ir Vr(max) @ 100°C µa	If Fwd. 1 volt ma	1-99	100-999
20F5016	1N251	MM	40	10@10v	5	1.52	1.07
21FX5625	1N625	MM	30	30	4	.57	.43
21FX5626	1N626	MM	50	30	4	.62	.46
21FX5627	1N627	MM	100	30	4	.67	.48
21FX5628	1N628	MM	150	30	4	.72	.53
21FX5629	1N629	MM	200	30	4	.86	.60
21FX5630	1N643	MM	200	10@10v 15@100v	10	2.20	1.62
21F5144	1N659	MM	60	25	6	1.20	.70
21F5190	1N660	MM	110	50	6	1.30	.80
21F5191	1N661	MM	240	100	6	1.95	1.32
21FX5700	1N662	MM	100	20@10v 100@50v	10	1.14	.80
21FX5701	1N663	MM	100	50@75v	100	1.54	1.13
21FX5632	1N914	MM	100	50@150°C @20v	10	2.40	1.90
20F5086	1N914A	MM	100	50@20v @150°C	20	3.20	2.19
20F5087	1N914B	MM	100	50@20v @150°C	100	4.85	3.26
20F5371	1N3064	MM	75	100@50v @150°C	10	3.55	2.80
20F5088	1N915	MM	65	5@20v	50	4.05	3.03
21FX5633	1N916	MM	100	50@20v @150°C	10	3.20	2.60

(Continued in next column)

SILICON COMPUTER DIODES (Cont.)

Stk. No.	Type	Case	BVr	Max. Ir Vr(max) @ 100°C µa	If Fwd. 1 volt ma	1-99	100-999
20F5089	1N916A	MM	100	50@20v @150°C	20	3.80	3.15
20F5090	1N916B	MM	100	50@20v @150°C	30	4.76	3.80
20F5091	1N917	MM	50	25@20v	10	4.65	3.74
20F5372	1N3593	FF	50	50@10v @150°C	10	3.00	2.22
21FX5829	TI-6	FF	30	100@10v	5	1.68	1.26
20F5373	TI-251	FF	40	10@10v @125°C	5	1.68	1.26
20F5374	TI-252	FF	60	25	6	1.72	1.28
20F5375	TI-253	FF	120	50	6	1.78	1.32
20F5376	TI-254	FF	100	50@20v @150°C	10	2.75	1.60
20F5377	TI-255	FF	100	50@20v @150°C	20	2.95	2.40
20F5378	TI-256	FF	100	50@20v @150°C	10	3.35	2.60
20F5379	TI-257	FF	100	50@20v @150°C	20	3.65	2.80
20F5013	C01	MM	65	200	4	1.00	.82

SILICON CONTROLLED RECTIFIERS

Iga = 2.

Stk. No.	Type	Case	Non-Recurrent Surge Current ½ Cycle at 60 cps a	BVf Tc= 125°C v	Max. Temp. Case °C	1-99	100-999
20F5380	TI-40A0	AA	75	60	100	4.65	3.10
20F5381	TI-40A1	AA	75	120	100	5.10	3.40
21FX5898	TI-40A2	AA	75	240	100	6.30	4.20
20F5382	TI-40A3	AA	75	360	100	8.70	5.80
20F5383	TI-40A4	AA	75	480	100	10.30	6.85
20F5384	TI-40A5	AA	75	600	100	30.00	20.00
20F5385	TI-40A6	AA	75	720	100	37.50	25.00
20F5386	TI-140A0	RR	60	60	100	4.65	3.10
20F5387	TI-140A1	RR	60	120	100	5.10	3.40
20F5388	TI-140A2	RR	60	240	100	7.30	4.20
20F5389	TI-140A3	RR	60	360	100	8.70	5.80
20F5390	TI-140A4	RR	60	480	100	10.55	6.85
20F5391	TI-140A5	RR	60	600	100	30.00	20.00
20F5392	TI-140A6	RR	60	720	100	37.50	25.00
20F5393	TI-145A0	PP	30	60	100	4.65	3.10
20F5394	TI-145A1	PP	30	120	100	5.10	3.40
20F5395	TI-145A2	PP	30	240	100	6.30	4.20
20F5396	TI-145A3	PP	30	360	100	8.75	5.80
20F5397	TI-145A4	PP	30	480	100	10.30	6.85
20F5398	TI-145A5	PP	30	600	100	30.00	20.00
20F5399	TI-145A6	PP	30	720	100	37.50	25.00
21FX5811	TI-116	PP	30	240	150	12.00	8.00
21FX5812	TI-117	PP	30	360	150	18.00	12.00
21FX5813	TI-118	PP	30	480	150	30.00	20.00
21FX5814	TI-136	AA	75	240	150	12.00	8.00
21FX5815	TI-137	AA	75	360	150	18.00	12.00
21FX5816	TI-138	AA	75	480	150	30.00	20.00
21FX5603	2N1595	PP	30	60	150	6.15	4.10
21FX5604	2N1596	PP	30	120	150	10.65	7.10
21FX5605	2N1597	PP	30	240	150	15.00	10.00
21FX5662	2N1598	PP	30	360	150	22.00	14.65

HIGH CURRENT RECTIFIERS

Stk No.	Type	Case	Vr (max)	Io a 50°C	Io 150°C	Recurrent Peak Current @ 50°C	1-99	100-999
20F5477	1N1183‡	UU	50	50.0	35.0	50	4.20	3.00
20F5478	1N1184‡	UU	100	50.0	35.0	50	5.00	3.40
20F5479	1N1185‡	UU	150	50.0	35.0	50	6.00	4.25
20F5480	1N1186‡	UU	200	50.0	35.0	50	7.10	4.90
20F5481	1N1187‡	UU	300	50.0	35.0	50	9.90	6.80
20F5482	1N1188‡	UU	400	50.0	35.0	50	13.95	9.20
20F5483	1N1189‡	UU	500	50.0	35.0	50	19.95	13.70
20F5484	1N1190‡	UU	600	50.0	35.0	50	25.00	16.25

SILICON RECTIFIERS-ECONOMY PACKAGE

Stk. No.	Type	Case	Vr (max)	Io ma 25°C	Io ma 100°C	Recurrent Peak Cur. @ 25°C a	1-99	100-999
21F5096	1N2069	GG	200	750	500	6	.76	.51
21F5097	1N2070	GG	400	750	500	6	.96	.64
21F5098	1N2071	GG	600	750	500	6	1.49	.99

TEXAS INSTRUMENTS SEMICONDUCTORS

GENERAL PURPOSE RECTIFIERS

(*) Full cycle avg. @ 150°C. (‡) R suffix denotes Anode to Stud configuration.

Stk. No.	Type	Case	Vr (max)	Recurrent Peak Current @ 50°C a	Ir ma @ 25°C	1-99	100-999
21FX5663	2N1599	PP	30	480	150	31.00	20.75
20F5402	TI-1599-5	PP	30	600	150	41.25	27.50
20F5403	TI-1599-6	PP	30	720	150	51.75	34.50
20F5261	2N1605	AA	75	600	150	1.09	.72
20F5404	2N1929	RR	30	35	125	6.15	4.10
20F5405	2N1930	RR	30	75	125	7.65	5.10
20F5406	2N1931	RR	30	150	125	10.65	7.10
20F5407	2N1932	RR	30	225	125	13.25	8.80
20F5408	2N1933	RR	30	300	125	15.00	10.00
20F5409	2N1934	RR	30	350	125	18.00	12.00
20F5410	2N1935	RR	30	400	125	22.00	14.65
20F5411	TI-1935	RR	30	480	125	31.00	20.75
20F5412	TI-1936	RR	30	600	125	41.25	27.50
20F5413	TI-1937	RR	30	720	125	51.75	34.50
20F5414	2N1770	AA	60	35	125	6.15	4.10
20F5415	2N1771	AA	60	60	125	7.65	5.10
20F5416	2N1772	AA	60	120	125	10.70	7.10
20F5417	2N1773	AA	60	180	125	13.20	8.80
20F5418	2N1774	AA	60	240	125	15.00	10.00
20F5419	2N1775	AA	60	300	125	18.00	12.00
20F5420	2N1776	AA	60	360	125	22.00	14.65
20F5421	2N1777	AA	60	480	125	31.00	20.75
20F5422	2N1778	AA	60	600	125	41.25	27.50
20F5423	TI-1779	AA	60	720	125	51.75	34.50
20F5214	2N681	OO	150	35	150	13.10	8.75
20F5310	2N681A	OO	250	35	150	13.10	8.75
20F5215	2N682	OO	150	75	150	13.90	9.25
20F5311	2N682A	OO	250	75	150	13.90	9.25
20F5216	2N683	OO	150	150	150	15.75	10.50
20F5312	2N683A	OO	250	150	150	15.75	10.50
20F5217	2N684	OO	150	225	150	18.75	12.50
20F5313	2N684A	OO	250	225	150	18.75	12.50
20F5218	2N685	OO	150	300	150	22.50	15.00
20F5314	2N685A	OO	250	300	150	22.50	15.00
20F5219	2N686	OO	150	350	150	27.75	18.50
20F5315	2N686A	OO	250	350	150	27.75	18.50
20F5220	2N687	OO	150	400	150	33.00	22.00
20F5316	2N687A	OO	250	400	150	33.00	22.00
20F5221	2N688	OO	150	500	150	43.50	29.00
20F5317	2N688A	OO	250	500	150	43.50	29.00
20F5424	2N689	OO	150	600	150	54.00	36.00
20F5318	2N689A	OO	250	600	150	54.00	36.00
20F5425	2N1842	OO	125	35	100	9.80	6.55
20F5426	2N1842A	OO	125	35	125	9.80	6.55
20F5319	2N1842B	OO	150	35	125	9.80	6.55
20F5427	2N1843	OO	125	75	100	10.40	6.95
20F5428	2N1843A	OO	125	75	125	10.40	6.95
20F5320	2N1843B	OO	150	75	125	10.40	6.95
20F5429	2N1844	OO	125	150	100	11.90	7.90
20F5430	2N1844A	OO	125	150	125	11.90	7.90
20F5321	2N1844B	OO	150	150	125	11.90	7.90
20F5431	2N1845	OO	125	225	100	14.10	9.40
20F5432	2N1845A	OO	125	225	125	14.10	9.40
20F5322	2N1845B	OO	150	225	125	14.10	9.40
20F5433	2N1846	OO	125	300	100	15.40	11.25
20F5434	2N1846A	OO	125	300	125	15.40	11.25
20F5323	2N1846B	OO	150	300	125	15.40	11.25
20F5435	2N1847	OO	125	350	100	20.85	13.90
20F5436	2N1847A	OO	125	350	125	20.85	13.90
20F5324	2N1847B	OO	150	350	125	20.85	13.90
20F5437	2N1848	OO	125	400	100	24.75	16.50
20F5438	2N1848A	OO	125	400	125	24.75	16.50
20F5325	2N1848B	OO	150	400	125	24.75	16.50
20F5439	2N1849	OO	125	500	100	33.00	22.00
20F5440	2N1849A	OO	125	500	125	33.00	22.00
20F5326	2N1849B	OO	150	500	125	33.00	22.00
20F5441	2N1850	OO	125	600	100	40.50	27.00
20F5442	2N1850A	OO	125	600	125	40.50	27.00
20F5327	2N1850B	OO	150	600	125	40.50	27.00
21FX5587	1N253‡	II	100	10.0	0.01	1.19	.79
21FX5588	1N254‡	II	200	10.0	0.01	1.25	.83
21FX5589	1N255‡	II	400	10.0	0.01	1.97	1.31
21FX5590	1N256‡	II	600	10.0	0.01	2.85	1.90
20F5018	1N332‡	II	400	4.0	0.2*	1.97	1.31
20F5019	1N333‡	II	400	2.0	0.2*	1.97	1.31
20F5020	1N334‡	II	300	4.0	0.2*	1.58	1.05
20F5021	1N335‡	II	300	2.0	0.2*	1.58	1.05
20F5022	1N336‡	II	200	4.0	0.1*	1.25	.83
20F5023	1N337‡	II	200	2.0	0.1*	1.25	.83
20F5024	1N338‡	II	100	10.0	0.2*	2.10	1.40
20F5025	1N339‡	II	100	4.0	0.1*	1.19	.79
20F5026	1N340‡	II	100	2.0	0.1*	1.19	.79
20F5027	1N341‡	II	400	4.0	0.5*	1.97	1.31
20F5028	1N342‡	II	400	2.0	0.5*	1.97	1.31
20F5029	1N343‡	II	300	4.0	0.5*	1.58	1.05
20F5030	1N344‡	II	300	2.0	0.5*	1.58	1.05
20F5031	1N345‡	II	200	4.0	0.5*	1.25	.83
20F5032	1N346‡	II	200	2.0	0.5*	1.25	.83
20F5033	1N347‡	II	100	10.0	0.5*	2.00	1.30
20F5034	1N348‡	II	100	4.0	0.5*	1.19	.79
20F5035	1N349‡	II	100	2.0	0.5*	1.19	.79
20F5036	IN440B	JJ	100	2.5	0.3μa	.83	.55
20F5037	1N441B	JJ	200	2.5	0.75μa	.86	.57
20F5038	1N442B	JJ	300	2.5	1.0μa	.99	.66
20F5039	1N443B	JJ	400	2.5	1.5μa	1.24	.83
20F5040	1N444B	JJ	500	2.0	1.75μa	1.40	.94
20F5041	1N445B	JJ	600	2.0	2.0μa	1.82	1.21
20F5042	1N530	JJ	100	1.5	3.0μa	.68	.43
20F5043	1N531	JJ	200	1.5	7.5μa	.85	.55
20F5044	1N532	JJ	300	1.5	10.0μa	1.00	.70
20F5045	1N533	JJ	400	1.5	15.0μa	1.20	.80
20F5046	1N534	JJ	500	1.5	17.5μa	1.25	.84
20F5047	1N535	JJ	600	1.5	20.0μa	2.40	1.60
21FX5694	1N536	JJ	50	2.5	0.01	.53	.35
21FX5695	1N537	JJ	100	2.5	0.01	.60	.40
21F5139	1N538	JJ	200	2.5	0.01	.68	.45
21F5140	1N539	JJ	300	2.5	0.01	.83	.55
21F5141	1N540	JJ	400	2.5	0.01	.98	.65
21FX5634	1N547	JJ	600	2.5	0.01	1.43	.95
20F5048	1N550‡	II	100	1.5	0.5μa	1.29	.86
20F5049	1N551‡	II	200	1.5	1.0μa	1.38	.92
20F5050	1N552‡	II	300	1.5	1.5μa	1.77	1.18
20F5051	1N553‡	II	400	1.5	2.5μa	2.16	1.44
20F5052	1N554‡	II	500	1.5	3.5μa	2.16	1.44
20F5053	1N555‡	II	600	1.5	5.0μa	3.15	2.10
21F5038	1N570	BB	1500	1.2	0.05	32.20	24.60
21F5034	1N588	LL	1500	0.15	0.05	8.10	5.40
21F5035	1N589	LL	1500	0.25	0.05	11.20	7.60
20F5054	1N599	JJ	50	1.5	0.025	.74	.49
20F5055	1N599A	JJ	50	1.5	1μa	1.31	.87
20F5056	1N600	JJ	100	1.5	0.025	.92	.61
20F5057	1N600A	JJ	100	1.5	1μa	1.46	.97
20F5058	1N601	JJ	150	1.5	0.025	.98	.65
20F5059	1N601A	JJ	150	1.5	1μa	1.59	1.06
20F5060	1N602	JJ	200	1.5	0.025	1.05	.70
20F5061	1N602A	JJ	200	1.5	1μa	1.68	1.12
20F5062	1N603	JJ	300	1.5	0.025	1.37	.91
20F5063	1N603A	JJ	300	1.5	1μa	2.07	1.38
20F5064	1N604	JJ	400	1.5	0.025	1.86	1.24
20F5065	1N604A	JJ	400	1.5	1.5μa	2.52	1.68
20F5066	1N605	JJ	500	1.5	0.025	1.97	1.31
20F5067	1N605A	JJ	500	1.5	2.0μa	2.59	1.79
20F5068	1N606	JJ	600	1.5	0.025	2.22	1.48
20F5069	1N606A	JJ	600	1.5	2.5μa	3.50	2.33
20F5070	1N607‡	II	50	3.0	0.025	1.14	.76
20F5071	1N607A‡	II	50	3.0	1μa	1.25	.83
20F5072	1N608‡	II	100	3.0	0.025	1.19	.79
20F5073	1N608A‡	II	100	3.0	1μa	1.29	.86
20F5074	1N609‡	II	150	3.0	0.025	1.22	.81
20F5075	1N609A‡	II	150	3.0	1μa	1.34	.89
20F5076	IN610‡	II	200	3.0	0.025	1.25	.83
20F5077	1N610A‡	II	200	3.0	1μa	1.47	.92
20F5078	1N611‡	II	300	3.0	0.025	1.58	1.05
20F5079	1N611A‡	II	300	3.0	1μa	1.77	1.18
20F5080	1N612‡	II	400	3.0	0.025	1.97	1.31
20F5081	1N612A‡	II	400	3.0	1.5μa	2.16	1.44
20F5082	1N613‡	II	500	3.0	0.025	1.97	1.31
20F5083	1N613A‡	II	500	3.0	2.0μa	2.16	1.44
20F5084	1N614‡	II	600	3.0	0.025	2.85	1.90
20F5085	1N614A‡	II	600	3.0	2.5μa	3.15	2.10
21F5142	1N1095	JJ	500	2.5	0.01	.98	.65
21F5143	1N1096	JJ	600	2.5	0.01	1.43	.95
20F5092	1N1100	JJ	100	2.5	0.3@150°C	.92	.61
20F5093	1N1101	JJ	200	2.5	0.3@150°C	1.13	.75
20F5094	1N1102	JJ	300	2.5	0.3@150°C	1.46	.97
20F5095	1N1103	JJ	400	2.5	0.3@150°C	2.13	1.42
20F5096	1N1104	JJ	500	2.5	0.3@150°C	3.30	2.10
20F5097	1N1105	JJ	600	2.5	0.3@150°C	3.60	2.40
20F5098	1N1115‡	II	100	5.0	0.4*	1.19	.75
20F5099	1N1116‡	II	200	5.0	0.3*	1.25	.83
20F5100	1N1117‡	II	300	5.0	0.3*	1.58	1.05
20F5101	1N1118‡	II	400	5.0	0.3*	1.97	1.31
20F5102	1N1119‡	II	500	5.0	0.3*	1.97	1.31
20F5103	1N1120‡	II	600	5.0	0.3*	2.85	1.90
21F5145	1N1124‡	II	200	10.0	0.01	2.70	2.21
21F5146	1N1125‡	II	300	10.0	0.01	3.38	2.76
21F5147	1N1126‡	II	400	10.0	0.01	4.73	3.87
21F5148	1N1127‡	II	500	10.0	0.01	6.76	5.56
21F5134	1N1128‡	II	600	10.0	0.01	8.32	6.80
20F5443	1N1124A	II	200	10.0	0.01	2.70	2.21
20F5444	1N1125A	II	300	10.0	0.01	3.38	2.76
20F5445	1N1126A	II	400	10.0	0.01	4.73	3.87
20F5446	1N1127A	II	500	10.0	0.01	6.76	5.56
20F5447	1N1128A	II	600	10.0	0.01	8.32	6.80
21F5136	1N1130	II	1500	1.0	0.05	11.20	7.60
21F5137	1N1131	II	1500	1.0	0.05	11.20	7.60
20F5104	1N1487	JJ	100	2.5	0.3*	.69	.46
20F5105	1N1488	JJ	200	2.5	0.3*	.81	.54
20F5106	1N1489	JJ	300	2.5	0.3*	1.04	.69
20F5107	IN1490	JJ	400	2.5	0.3*	1.19	.79
20F5108	1N1491	JJ	500	2.5	0.3*	1.19	.79

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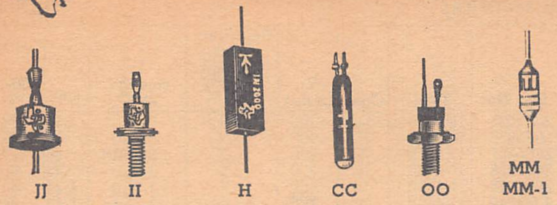
TEXAS INSTRUMENTS SEMICONDUCTORS



GENERAL PURPOSE RECTIFIERS (Con't.)

Stk. No.	Type	Case	Vr Max.	Recurrent Peak Current @ 50°C a	Ir ma @25°C	1-99	100-999
20F5109	1N1492	JJ	600	2.5	0.3*	2.00	1.33
20F5110	1N1581	II	50	35.0	0.3*	2.45	1.85
20F5111	1N1582	II	100	35.0	0.3*	3.50	2.65
20F5112	1N1583	II	200	35.0	0.3*	4.45	3.35
20F5113	1N1584	II	300	35.0	0.3*	7.25	5.45
20F5114	1N1585	II	400	35.0	0.3*	9.95	7.50
20F5115	1N1586	II	500	35.0	0.3*	12.75	9.60
20F5116	1N1587	II	600	35.0	0.3*	15.50	11.65
20F5127	1N1612	II	50	50.0	0.3*	2.45	1.85
20F5128	1N1613	II	100	50.0	0.3*	3.50	2.65
21FX5637	1N1614‡	II	200	50.0	0.3*	5.84	3.89
21FX5638	1N1615‡	II	400	50.0	0.3*	8.34	5.55
21FX5639	1N1616‡	II	600	50.0	0.3*	12.75	8.50
20F5129	1N1692	JJ	100	2.5	0.3*	.63	.39
20F5130	1N1693	JJ	200	2.5	0.3*	.78	.51
20F5131	1N1694	JJ	300	2.5	0.3*	.95	.63
20F5132	1N1695	JJ	400	2.5	0.3*	1.02	.68
20F5133	1N1696	JJ	500	2.5	0.3*	1.02	.68
20F5134	1N1697	JJ	600	2.5	0.3*	1.79	1.19
20F5475	1N2117	JJ	720	2.5	1μa	9.95	6.25
20F5476	1N3775‡	II	1500	10.0	5μa	6.39	4.26

* Full cycle avg. @ 150°C.

PLANAR SILICON PHOTO DEVICES

Type LS 400. Light Current measured interms of radiation. Radiation=9mw/cf² in a frequency bandwidth of .7 to 1 micron. Light Current @ 5 VDC=1.0 ma minimum. Dark Current @ 30 VDC=.025 ma maximum. Typical light gun current sensitivity between 300 and 600 foot candles @ 5 V=7 ma/foot can. Power Dissipation=50mw maximum.

Type LS 400. 1-99....25.00
100-999....17.50

Stk. No.	Type	Output (typ)	Load (ohms)	1-99	100-999
21FX5645	LS221	275 mw volts	10,000	24.00	20.00
20F5487	LS222	290 μ amps	1,000	6.00	5.45
20F5488	LS223	350 μ amps	1,000	9.40	9.20

Test conditions: 280 ft. candles, 2500°K.

SILICON PHOTOCONDUCTIVE LIGHT SENSORS

Stk. No.	Type	Case	Bias Volt. V Max.	Max. Dark Current @ 25°C ±50 volts in μa	Max. Dark Current @ 100°C ±50 volts in μa	Min. * Light Current @ 25°c @ ±10 volts in μa	1-99	100-999
21F5095	1N2175	CC	±50	.5	100	100	11.50	8.00
21FX5910	H-11	CC	±50	.5		40	4.00	2.80
21FX5911	H-35	CC	±50	.5		60	5.00	3.50
21FX5912	H-38	CC	±50	10.0		100	4.00	2.80
20F5489	H-60	CC	±50	.5	100	100	8.00	5.60
20F5490	H-61	CC	±50	.5	100	200	9.00	6.25
20F5491	H-62	CC	±50	.5	100	300	10.00	7.00

* Light Current measured in terms of radiation. Radiation=9 mw/cm² in a frequency bandwidth of .7 to 1 micron.

HIGH VOLTAGE DIODE STACKS—FIG. H

Stk. No.	No.	Vf Max @250 ma @+25°C	Zener Min.	Zener Max.	1-9	10-29	30-99	100-999
21FX5702	1N2878	2	800	1400	7.00	5.85	5.30	4.75
21FX5703	1N2879	2	800	1400	7.00	5.85	5.30	4.75
21FX5704	1N2880	2	1100	1400	7.70	6.45	5.85	5.25
21FX5705	1N2881	2	1100	1400	7.70	6.45	5.85	5.25
21FX5706	1N2882	3	1200	2100	9.05	7.55	6.85	6.15
21FX5707	1N2883	3	1200	2100	9.05	7.55	6.85	6.15
21FX5708	1N2884	4	1600	2800	10.05	8.40	7.60	6.85
21FX5709	1N2885	4	1600	2800	10.05	8.40	7.60	6.85
21FX5710	1N2886	3	1650	2100	10.05	8.40	7.60	6.85
21FX5711	1N2887	3	1650	2100	10.05	8.40	7.60	6.85
21FX5712	1N2888	5	2000	3500	11.85	9.90	8.95	8.05
21FX5713	1N2889	5	2000	3500	11.85	9.90	8.95	8.05
21FX5714	1N2890	4	2200	2800	11.85	9.90	8.95	8.05
21FX5715	1N2891	4	2200	2800	11.85	9.90	8.95	8.05
21FX5716	1N2892	6	2400	4200	13.00	10.90	9.80	8.85
21FX5717	1N2893	6	2400	4200	13.00	10.90	9.80	8.85
21FX5718	1N2894	7	2800	4900	14.55	12.20	11.00	9.90
21FX5719	1N2895	7	2800	4900	14.55	12.20	11.00	9.90
21FX5720	1N2896	5	2750	3500	14.55	12.20	11.00	9.90
21FX5721	1N2897	5	2750	3500	14.55	12.20	11.00	9.90

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HIGH VOLTAGE DIODE STACKS—CONTINUED

Stk. No.	No.	Vf Max @250 ma @+25°C	Zener Min.	Zener Max.	1-9	10-29	30-99	100-999
21FX5722	1N2898	8	3200	5600	16.35	13.70	12.35	11.15
21FX5723	1N2899	8	3200	5600	16.35	13.70	12.35	11.15
21FX5724	1N2900	6	3300	4200	16.35	13.70	12.35	11.15
21FX5725	1N2901	6	3300	4200	16.35	13.70	12.35	11.15
21FX5726	1N2902	9	3600	6300	18.75	15.70	14.15	12.75
21FX5727	1N2903	9	3600	6300	18.75	15.70	14.15	12.75
21FX5728	1N2904	7	3850	4900	18.75	15.70	14.15	12.75
21FX5729	1N2905	7	3850	4900	18.75	15.70	14.15	12.75
21FX5730	1N2906	11	4000	7000	18.75	15.70	14.15	12.75
21FX5731	1N2907	11	4000	7000	18.75	15.70	14.15	12.75
21FX5732	1N2908	8	4400	7700	20.95	17.55	15.85	14.25
21FX5733	1N2909	8	4400	7700	20.95	17.55	15.85	14.25
21FX5734	1N2910	12	4400	5600	20.95	17.55	15.85	14.25
21FX5735	1N2911	12	4400	5600	20.95	17.55	15.85	14.25
21FX5736	1N2912	10	4800	8400	23.30	19.50	17.60	15.85
21FX5737	1N2913	10	4800	8400	23.30	19.50	17.60	15.85
21FX5738	1N2914	9	4950	6300	23.30	19.50	17.60	15.85
21FX5739	1N2915	9	4950	6300	23.30	19.50	17.60	15.85
21FX5740	1N2916	13	5200	9100	23.30	19.50	17.60	15.85
21FX5741	1N2917	13	5200	9100	23.30	19.50	17.60	15.85
21FX5742	1N2918	10	5500	7000	25.00	20.90	18.90	17.00
21FX5743	1N2919	10	5500	7000	25.00	20.90	18.90	17.00
21FX5744	1N2920	11	6050	7700	27.75	23.20	20.95	18.85
21FX5745	1N2921	11	6050	7700	27.75	23.20	20.95	18.85
21FX5746	1N2922	12	6600	8400	29.45	24.65	22.25	20.05
21FX5747	1N2923	12	6600	8400	29.45	24.65	22.25	20.05
21FX5748	1N2924	13	7150	9100	31.85	26.65	24.05	21.70
21FX5749	1N2925	13	7150	9100	31.85	26.65	24.05	21.70

SILICON POWER REGULATOR—SINGLE ANODE

Stk. No.	Type	Case Type	Vz Zener	Iz (test) ma	Max Zz @ Iz (Test) Ohms	1-24	25-99	100-999
20F5492	1N2970	II	6.8	370	1.2	5.85	5.50	4.40
20F5493	1N2971	II	7.5	335	1.3	5.85	5.50	4.40
20F5494	1N2972	II	8.2	305	1.5	5.85	5.50	4.40
20F5495	1N2973	II	9.1	275	2.0	5.85	5.50	4.40
20F5496	1N2974	II	10	250	3.0	5.85	5.50	4.40
20F5497	1N2975	II	11	230	3.0	5.85	5.50	4.40
20F5498	1N2976	II	12	210	3.0	5.85	5.50	4.40
20F5499	1N2977	II	13	190	3.0	5.85	5.50	4.40
20F5500	1N2979	II	15	170	3.0	5.85	5.50	4.40
20F5501	1N2980	II	16	155	4.0	5.85	5.50	4.40
20F5502	1N2982	II	18	140	4.0	5.85	5.50	4.40
20F5503	1N2984	II	20	125	4.0	5.85	5.50	4.40
20F5504	1N2985	II	22	115	5.0	5.85	5.50	4.40
20F5505	1N2986	II	24	105	5.0	5.85	5.50	4.40
20F5506	1N2988	II	27	95	7.0	5.85	5.50	4.40
20F5507	1N2989	II	30	85	8.0	5.85	5.50	4.40
20F5508	1N2990	II	33	75	9.0	5.85	5.50	4.40
20F5509	1N2991	II	36	70	10	5.85	5.50	4.40
20F5510	1N2992	II	39	65	11	5.85	5.50	4.40
20F5511	1N2993	II	43	60	12	5.85	5.50	4.40
20F5512	1N2995	II	47	55	14	5.85	5.50	4.40
20F5513	1N2997	II	51	50	15	5.85	5.50	4.40
20F5514	1N2999	II	56	45	16	5.85	5.50	4.40
20F5515	1N3000	II	62	40	17	5.85	5.50	4.40
20F5516	1N3001	II	68	37	18	5.85	5.50	4.40
20F5517	1N3002	II	75	33	22	5.85	5.50	4.40
20F5518	1N3003	II	82	30	25	5.85	5.50	4.40
20F5519	1N3004	II	91	28	35	5.85	5.50	4.40
20F5520	1N3005	II	100	25	40	5.85	5.50	4.40
20F5521	1N3007	II	100	23	55	6.45	6.05	4.85
20F5522	1N3008	II	120	20	75	6.45	6.05	4.85
20F5523	1N3009	II	130	19	100	6.45	6.05	4.85
20F5524	1N3011	II	150	17	175	6.45	6.05	4.85
20F5525	1N3012	II	160	16	200	6.45	6.05	4.85
20F5526	1N3014	II	180	14	260	6.45	6.05	4.85
20F5527	1N3015	II	200	12	300	6.45	6.05	4.85

PNPN TRIGGER

Stk. No.	Type	Case	1-99	100-999
20F5173	TI-42	MM-1*	1.50	1.00
20F5530	TI-43	MM-1*	2.25	2.25

* MM-1, unpainted.

POWER REGULATORS AND DOUBLE ANODE CLIPPERS

Stk. No.	Type	Case	Vz Zener	Iz ma	Max Zz @ 25°C @ Iz Ohms	Typ Temp Coef %/°C	1-99	100-999
21FX5754	1N2498†	II	10	500	2	0.06	8.45	6.50
21FX5755	1N2499†	II	11	500	2	0.06	8.45	6.50
21FX5756	1N2500†	II	12	500	2	0.06	8.45	6.50
21F5212	1N1816†	II	13	500	2	0.07	8.45	6.50
21F5213	1N1817†	II	15	500	2	0.07	8.45	6.50
21F5111	1N1818†	II	16	500	3	0.07	8.45	6.50
21F5214	1N1819†	II	18	500	3	0.07	8.45	6.50
21F5215	1N1820†	II	20	250	3	0.08	8.45	6.50
21F5104	1N1821†	II	22	250	3	0.08	8.45	6.50
21F5216	1N1822†	II	24	250	3	0.08	8.45	6.50
21F5105	1N1823†	II	27	250	3	0.08	8.45	6.50
21F5217	1N1824†	II	30	250	4	0.08	8.45	6.50
21F5106	1N1825†	II	33	150	4	0.08	8.45	6.50

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TEXAS INSTRUMENTS

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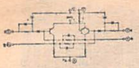
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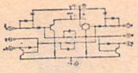
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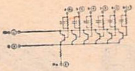
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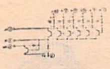
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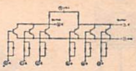
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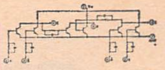
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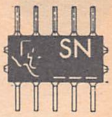


POWER REGULATORS & DOUBLE ANODE CLIPPERS (Cont.)

Stk. No.	Type	Case	Vz Zener	Max. Zz @25°C @Iz Ohms		Typ Temp Coef %/°C	1-99	100-999
21F5218	1N1826†	II	36	150	5	0.09	8.45	6.50
21F5107	1N1827†	II	39	150	5	0.09	8.45	6.50
21F5219	1N1828†	II	43	150	6	0.09	8.45	6.50
21F5108	1N1829†	II	47	150	7	0.09	8.45	6.50
21F5109	1N1830†	II	51	150	8	0.10	8.45	6.50
21F5110	1N1831†	II	56	150	9	0.10	8.45	6.50
21F5220	1N1832†	II	62	50	12	0.10	8.45	6.50
21F5221	1N1833†	II	68	50	14	0.10	8.45	6.50
21F5222	1N1834†	II	75	50	20	0.11	8.45	6.50
21F5223	1N1835†	II	82	50	22	0.11	8.45	6.50
21F5224	1N1836†	II	91	50	35	0.12	8.45	6.50
21F5350	1N2008†	II	100	50	40	0.12	8.45	6.50
21F5351	1N2009†	II	110	50	47	0.12	8.45	6.50
21F5352	1N2010†	II	120	50	56	0.12	8.45	6.50
21F5353	1N2011†	II	130	50	65	0.12	8.45	6.50

Pwr. Diss. @ 50°C=10w.

"SOLID CIRCUIT" SEMICONDUCTOR NETWORKS—FIG. G

Basic computer circuits in pre-assembled packages for digital computer applications. Within the parameters of the "Master Slice" wafer, custom variations in interconnections provide hundreds of special network designs quickly and economically—only slightly more than cost of standard, catalog circuits. Overall size: .25x.285x.035".

Stk. No.	Type	Fig.	Description	Fan Out Volts max.	Pwr. Drain @ 6V	1-25	26-250
20F5244	SN510*	A	R-S Flip-Flop/ Counter	6	8 mw	70.00	56.00
20F5245	SN511*	B	R-S Flip-Flop/ Counter	4/20	18 mw	80.00	64.00
20F5246	SN512	C	Nor/Nand Network	5	8 mw	70.00	56.00
20F5247	SN513	D	Nor/Nand Network	5/25	13 mw	80.00	64.00
20F5248	SN514†	E	2 Nor/Nand Networks	5	18 mw	70.00	56.00
20F5249	SN515	F	Exclusive or Network	4/5	16 mw	70.00	56.00

TANTALUM FILM CIRCUITS

Type FN-400. 10-Megacycle Tantalum Film Flip-Flop Circuits. Have precision resistors and capacitors with hermetically sealed mesa transistors and MICRO/G diodes. Specs.: Vcc 6 volts. Input trigger voltage —5 volts minimum. Input trigger frequency 10 mc maximum. Oper. ambient temperature range: —65°C to +100°C.

20F5531. 1-24..........................**100.00** **25-99**..........................**80.00**

CONANT COLOR-CODED INSTRUMENT RECTIFIERS

General replacement rectifiers for all types of meters and relays. Color-coding makes it easy to select correct replacement. Maximum AC input of all units 5 volts. Aver. shpg. wt., 3 oz.

Series 500. Designed for use in apparatus drawing up to 30 milliamps. Reverse voltage, 2.25 DC. Disc diameter, 500'. Active area, .15 square inches.

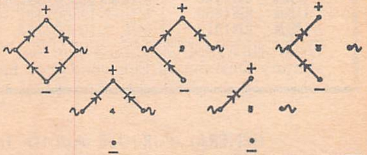
Series 160 and 160-C. Designed for applications requiring better than average frequency response. Recommended for conventional circuits using meter movements drawing up to 5 milliamps. Disc dia., .166". Active area, .019 square inches.

21F109. Conant Instrument Rectifier Book. **NET** ....**.15**

500

160

160C

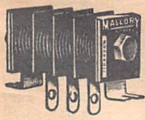


Stock No.	Mfrs. Type	Series	Body Color	Internal Circuit	No. of Term	Forward DC MA	Av. Output DC MA	NET EACH
21F100	M	500	Yellow	1	4	60	30	2.06
21F101	HS	500	Black	3	3	60	30	1.50
21F102	T	500	Red	4	3	60	30	1.50
21F103	H	500	Green	5	2	60	30	1.18
21F104	B	160	Yellow	1	4	10	10	2.06
21F105	BHS	160	Black	3	3	10	5	1.50
21F106	BT	160	Red	4	3	10	5	1.50
21F107	BH	160	Green	5	2	10	5	1.18
21F108	B-C	160-C	Yellow	1	4	10	5	2.06

MALLORY DRY DISC TYPE RECTIFIERS

1B8R

1B12C3



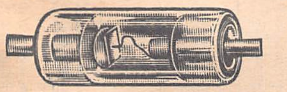
1B12C1J

F16C3

Magnesium-copper sulphide rectifiers for low voltage, medium and high-current applications. All are full-wave bridge type rectifiers, etc. Unaffected by extremes of temperature. Type 1B12R for "0" gauge circuits. Av. wt., 1 lb.

Stock No.	Mfrs. Type	AC V Input	DC V Output	Cont. Amps.	NET EACH
21F290	1B4R	3.6	1.7	1.5	1.93
21F291	1B8R	7.2	3.4	1.5	2.30
21F292	1B12R	10.8	5.2	1.3	2.63
21F285	1B12L5	10.8	5.0	4.5	4.73
21F293	1B12C1J	10.8	5.1	3.2	4.84
21F294	F16C3	14.4	6.8	3.9	7.13
21F295	1S16CB7	14.4	6.6	6.0	8.20

OHMITE GERMANIUM DIODES

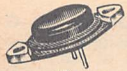


Subminiature, gold bonded (gold whisker wire welded to germanium), hermetically sealed in glass. Temp. range: —85F-+154°F. Diodes are leak tested at 100psi hydrostatic pressure, subjected to mechanical and temperature shock, and checked for vibration stability thru production random sampling. Standard EIA color coding. Rating, 80mw at 68°F; capacity .5µµf. Size: .275" body, .01" OD, with .020" dia. 1½" leads. Reverse recovery time: IBM modified, +5 ma fwd. to 200K, -20v, 50kc rep. rate. *55°C, †75°C; ‡.5. M sec.

Stock No.	Mfg. Type	Max. Rev. µa@25°C ma	@v	Minimum Forward ma @ 1V	PIV	1-99	100-999
21FX2504	1N64	25	10	50	25	.25	.18
21FX2519	1N128	10	10	3	50	.35	.25
21FX2526	OMC28	25	50	200	50	.37	.27
21FX2541	1N51	1500	50	5	75	.26	.19
21FX2508	1N90	500	50	5	75	.27	.19
21FX2510	1N96	500	50	40	75	.28	.20
21FX2516	1N118	100	50	40	75	.33	.24
21FX2517	1N126A	300	50	5	75	.26	.19
21FX2500	1N34A	500	50	5	75	.27	.19
21FX2503	1N60	20	10	5	75	.25	.18
21FX2543	1N48	800	50	5	85	.27	.19
21FX2521	1N192‡	250	50*	5	90	.40	.29

Stock No.	Mfg. Type	Max. Rev. µa@25°C µa	@V	Minimum Forward ma @ 1V	PIV	1-99	100-999
21FX2520	1N191‡	25	10*	5	90	.40	.29
21FX2511	1N97	100	50	20	100	.33	.24
21FX2512	1N98	100	50	40	100	.33	.24
21FX2522	1N198	250	10†	5	100	.50	.36
21FX2505	1N67A	50	50	5	100	.33	.24
21FX2513	1N99	50	50	20	100	.35	.25
21FX2514	1N100	50	50	40	100	.36	.26
21FX2518	1N127A	200	50	5	125	.32	.23
21FX2501	1N38A	500	100	5	125	.35	.25
21FX2506	1N68A	625	100	5	130	.45	.32
21FX2502	1N55A	500	150	5	170	.57	.41

MOTOROLA SEMICONDUCTORS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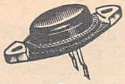
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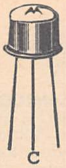
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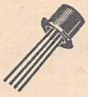
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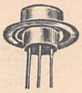
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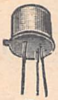
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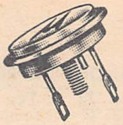
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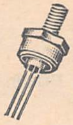
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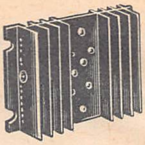

J

SPECIAL MILITARY DESIGNATED SEMICONDUCTORS

When ordering Special Military Designated units, two (2) copies of your purchase order must be sent to NEWARK

Type No.		Mil. Spec.	1-99	100-999
JAN	1N538	MIL-E-1/1084A	.87	.55
JAN	1N540	MIL-E-1/1085A	1.24	.80
JAN	1N547	MIL-E-1/1083A	1.81	1.20
JAN	2N174	MIL-T-19500/13A	4.50	3.00
JAN	2N331	MIL-T-19500/4A	1.80	1.20
USAF	2N461	MIL-T-19500/45	3.45	2.30
USA	2N465	MIL-T-19500/50A	1.80	1.20
JAN	2N466	MIL-S-19500/51A	1.95	1.30
USA	2N467	MIL-T-19500/52A	2.25	1.50
JAN	2N526	MIL-T-19500/600	1.74	1.16
USN	2N650A	MIL-S-19500/175	2.90	1.95
USN	2N651A	MIL-S-19500/175	2.85	1.90
USN	2N652A	MIL-S-19500/175	3.35	2.25
USA	2N700A	MIL-S-19500/123	14.25	9.50
USN	2N705	MIL-S-19500/86	3.00	2.00
USA	2N1120	MIL-S-19500/68	12.75	8.50
USA	2N1358	MIL-T-19500/122	7.65	5.11
USA	2N1412	MIL-T-19500/76A	9.00	6.00

Write NEWARK-CHICAGO for our Bi-Monthly Special Military Designated Semiconductor inventory.

GENERAL PURPOSE AUDIO TRANSISTORS

*Megalite transistor ‡hfb

Stock No.	Type No.	Fig.	Pc Mw.	BVcbo Volts	Ic mA	hFE	1-99	100-999
20F4310	2N319	C	225	......	500	25-42	1.50	1.00
20F4311	2N320	C	225	......	500	34-65	1.57	1.05
20F4312	2N321	C	225	......	500	53-121	1.60	1.07
20F4313	2N322	C	225	......	500	34-65	.75	.50
20F4314	2N323	C	225	......	500	53-121	.82	.55
20F4349	2N324	C	225	......	500	72-198	.91	.61
20F4020	2N331	C	200	30	200	30-70	1.50	1.00
21FX3800	2N398	C	50	105	100	20-........	1.30	.87
21FX3890	2N398A*	C	150	105	200	20-........	1.30	.87
20F4471	2N461	C	200	45	100	.968-.985‡	1.70	1.15
21F4029	2N464	C	200	45	100	14-........	1.50	1.00
21F4030	2N465	C	200	45	100	27-........	1.50	1.00
21F4031	2N466	C	200	35	100	56-........	1.65	1.10
21F4032	2N467	C	200	35	100	112-........	2.10	1.40
20F4315	2N508	C	225	......	500	99-198	1.00	.66
20F4316	2N524	C	225	......	500	25-42	1.57	1.05
20F4317	2N524A*	C	225	......	500	25-42	1.95	1.30
20F4318	2N525	C	225	......	500	34-65	1.65	1.10
20F4319	2N525A*	C	225	......	500	34-65	2.02	1.35
20F4320	2N526	C	225	......	500	53-90	1.65	1.10
20F4321	2N526A*	C	225	......	500	53-90	2.02	1.35
20F4322	2N527	C	225	......	500	72-121	1.90	1.27
20F4323	2N527A*	C	225	......	500	72-121	2.28	1.52
21F4033	2N650	C	200	45	500	30-70	1.85	1.25
20F4473	2N650A*	C	200	45	500	30-70	2.40	1.60
21F4034	2N651	C	200	45	500	50-120	1.85	1.25
20F4474	2N651A*	C	200	45	500	50-120	2.30	1.55
21F4035	2N652	C	200	45	500	100-225	2.40	1.60
20F4475	2N652A*	C	200	45	500	100-225	2.75	1.85
21F4036	2N653	C	200	30	250	30-70	1.65	1.10
21F4037	2N654	C	200	30	250	50-125	1.80	1.20
21F4038	2N655	C	200	30	250	100-250	1.95	1.30
20F4324	2N1175	C	225	......	500	70-140	1.00	.66
21FX3895	2N1185	C	200	45	500	190-400	2.75	1.85
21FX3896	2N1186	C	200	60	500	30-70	2.60	1.75
21FX3897	2N1187	C	200	60	500	50-120	2.60	1.75
21FX3898	2N1188	C	200	60	500	100-225	3.15	2.10
21F4045	2N1191	C	200	40	200	30-70	1.12	.75
21F4046	2N1192	C	200	40	200	50-125	1.12	.75
21F4047	2N1193	C	200	40	200	100-250	1.50	1.00
21FX3899	2N1194	C	200	40	200	190-500	1.85	1.25
20F4325	2N1413	C	225	......	500	25-42	.80	.53
20F4326	2N1414	C	225	......	500	34-65	.82	.55
20F4327	2N1415	C	225	......	500	53-90	1.00	.66
20F4328	2N1924	C	225	......	500	34-65	1.87	1.25
20F4329	2N1925	C	225	......	500	53-90	2.10	1.40
20F4330	2N1926	C	225	......	500	72-121	2.47	1.65
20F4021	2N2042	C	200	105	200	20-80	1.85	1.25
20F4022	2N2043	C	200	105	200	45-180	2.25	1.50

MESA TRANSISTORS (GERMANIUM)

*Epitaxial transistor

Stock No.	Type	Fig.	Pc. Mw.	Coll.-Base..V.	Coll. Ma.	1-99	100-999
21FX4385	2N695	D	75	15	50	17.50	11.75
21F4039	2N700	D	75	25	50	7.35	4.90
20F4282	2N700A	D	75	25	50	11.85	8.70
21FX3811	2N705	F	150	15	50	2.90	1.94
21FX3812	2N710	F	150	15	50	2.48	1.65
21FX3814	2N711	F	150	12	50	1.53	1.02
20F4339	2N711A	F	150	15	......	1.53	1.02
20F4340	2N711B	F	150	18	......	2.18	1.45
21FX3813	2N741	F	150	15	100	2.18	1.45
20F4023	2N741A	F	150	15	100	3.30	2.20
21FX3868	2N828*	F	300	15	200	6.00	4.00
20F4331	2N828A*	F	150	15	......	6.00	4.00
20F4332	2N829*	F	150	15	......	6.90	4.60
20F4024	2N960*	F	150	25	100	3.98	2.65
20F4025	2N961*	F	150	20	100	3.15	2.10
20F4026	2N962*	F	150	20	100	2.40	1.60
20F4341	2N963*	F	150	12	......	1.57	1.05
20F4027	2N964*	F	150	25	100	4.58	3.05
20F4336	2N964A*	F	150	15	......	5.25	3.50
20F4028	2N965*	F	150	20	100	3.75	2.50
20F4029	2N966*	F	150	20	100	2.85	1.90
20F4342	2N967*	F	150	12	......	1.95	1.30
20F4030	2N968	F	150	15	100	2.33	1.55
20F4031	2N969	F	150	12	100	1.95	1.30
20F4032	2N970	F	150	12	100	1.65	1.10
20F4033	2N971	F	150	7	100	1.20	.80
20F4034	2N972	F	150	15	100	2.70	1.80
20F4035	2N973	F	150	12	100	2.10	1.40
20F4036	2N974	F	150	12	100	1.65	1.10
20F4037	2N975	F	150	7	100	1.43	.95
20F4343	2N1141*	C	300	35	......	10.12	6.75
20F4285	2N1142*	C	300	30	......	9.45	6.30
20F4286	2N1143*	C	300	25	......	6.38	4.25
20F4344	2N1195*	C	250	30	......	6.63	4.42
20F4345	2N1204*	C	250	20	......	6.95	4.65
21FX4450	2N1561	E	3W	25	500	21.75	14.50
21FX3816	2N1562	E	3W	25	500	14.25	9.50
21FX3815	2N1692	H	3W	25	500	22.50	17.00
21FX3817	2N1693	H	3W	25	500	18.00	12.00
20F4346	2N2258*	F	150	7	......	1.12	.75
20F4347	2N2259*	F	150	7	......	1.29	.85

EPITAXIAL, MESA/PLANAR TRANSISTORS (SILICON)

*Epitaxial

21FX3870	2N706	F	300	25	......	3.72	2.48
21FX3871	2N706A	F	300	25	......	5.40	3.60
21FX3872	2N706B	F	300	25	......	5.40	3.60
21FX3891	2N707	F	300	56	......	7.54	2.48
21FX3892	2N707A	F	300	70	......	22.50	15.00
21FX3893	2N753	F	300	25	......	6.38	4.25
21FX3883	2N834	F	300	40	......	8.25	5.50
21FX3894	2N835	F	300	25	......	5.40	3.60
20F4348	2N914*	F	360	40	......	15.30	10.20
20F4288	2N2217*	C	800	60	......	5.85	3.90
20F4287	2N2218*	C	800	60	......	5.85	3.90
20F4289	2N2219*	C	800	60	......	6.75	4.50
20F4333	2N2220*	F	500	60	......	5.85	3.90
20F4334	2N2221*	F	500	60	......	5.85	3.90
20F4335	2N2222*	F	500	60	......	6.75	4.50
20F4359	2N2256	F	300	7	......	1.12	.75
20F4350	2N2257	F	300	7	......	1.29	.85
20F4337	2N2330*	C	800	30	......	14.62	9.75
20F4338	2N2331*	F	500	30	......	14.62	9.75
20F4351	2N2501*	F	1.2 W	40	......	8.25	5.50
20F4352	2N2537*	C	3 W	60	......	6.65	4.45
20F4353	2N2538*	C	3 W	60	......	7.40	4.95
20F4354	2N2539*	F	1.8 W	60	......	6.65	4.45
20F4355	2N2540*	F	1.8 W	60	......	7.40	4.95

AUTOMOTIVE 2-WATT

Stock No.	Type	Fig.	P. Watts	BVCBO Volts	Typical hFE	1-99	100-up
21FX4000	2N176	A	90	40	45	1.65	1.10
20F4054	2N178	A	40	40	50	1.55	1.05
21F4009	2N554	A	40	15	50	.60	.40
21F4010	2N555	A	40	30	50	.75	.50
21FX4372	2N669	A	90	40	90	1.70	1.15

AUTOMOTIVE 4-WATT

21FX4373	2N350A	A	40	50	30	1.70	1.15
21FX4374	2N351A	A	40	50	45	1.80	1.20
21FX4375	2N376A	A	40	50	60	1.85	1.25

MOTOROLA SEMICONDUCTORS

3-AMP INDUSTRIAL POWER TRANSISTORS

*Megalife transistor

Stock No.	Type	Fig.	P. Watts	BVCBO Volts	hFE @ IC	1-99	100-up
20F4290	2N2137	A	62.5	30	30- 60@.5A	1.80	1.20
20F4291	2N2137A*	A	62.5	30	30- 60@.5A	2.55	1.70
20F4292	2N2138	A	62.5	45	30- 60@.5A	2.10	1.40
20F4293	2N2138A*	A	62.5	45	30- 60@.5A	2.85	1.90
20F4294	2N2139	A	62.5	60	30- 60@.5A	2.25	1.50
20F4295	2N2139A*	A	62.5	60	30- 60@.5A	3.00	2.00
20F4296	2N2140	A	62.5	75	30- 60@.5A	3.90	2.60
20F4297	2N2140A*	A	62.5	75	30- 60@.5A	4.65	3.10
20F4298	2N2141	A	62.5	90	30- 60@.5A	7.85	5.25
20F4299	2N2141A*	A	62.5	90	30- 60@.5A	8.60	5.75
20F4300	2N2142	A	62.5	30	50-100@.5A	2.30	1.55
20F4301	2N2142A*	A	62.5	30	50-100@.5A	3.05	2.05
20F4302	2N2143	A	62.5	45	50-100@.5A	2.45	1.65
20F4303	2N2143A*	A	62.5	45	50-100@.5A	3.20	2.15
20F4304	2N2144	A	62.5	60	50-100@.5A	3.75	2.50
20F4305	2N2144A*	A	62.5	60	50-100@.5A	4.50	3.00
20F4306	2N2145	A	62.5	75	50-100@.5A	4.50	3.00
20F4307	2N2145A*	A	62.5	75	50-100@.5A	5.25	3.50
20F4308	2N2146	A	62.5	90	50-100@.5A	8.60	5.75
20F4309	2N2146A*	A	62.5	90	50-100@.5A	9.35	6.25
20F4048	2N1359	A	90	50	35- 90@1A	2.25	1.50
20F4049	2N1360	A	90	50	60-140@1A	2.30	1.55
21F4001	2N375	A	90	80	35- 90@1A	4.10	2.75
21F4012	2N618	A	90	80	60-140@1A	4.50	3.00
20F4050	2N1362	A	90	100	35- 90@1A	5.00	3.35
20F4051	2N1363	A	90	100	60-140@1A	5.30	3.55
20F4052	2N1364	A	90	120	35- 90@1A	15.00	10.00
20F4053	2N1365	A	90	120	60-140@1A	18.00	12.00
21FX4376	2N297A	A	90	80	40-100@.5A	2.90	1.95
21FX4377	2N1011	A	90	80	30- 75@3A	4.35	2.90

5 AMP POWER TRANSISTORS

*Megalife transistor

Stock No.	Type	Fig.	Pc Watts	BVCBO Volts	hFE @ IC	1-99	100-999
20F4038	2N1529	A	90	40	20- 40@3A	1.95	1.30
20F4432	2N1529A*	A	90	40	20- 40@3A	2.70	1.80
20F4039	2N1530	A	90	60	20- 40@3A	2.00	1.35
20F4433	2N1530A*	A	90	60	20- 40@3A	2.75	1.85
20F4040	2N1531	A	90	80	20- 40@3A	3.05	2.05
20F4434	2N1531A*	A	90	80	20- 40@3A	3.80	2.55
20F4041	2N1532	A	90	100	20- 40@3A	4.35	2.90
20F4435	2N1532A*	A	90	100	20- 40@3A	5.10	3.40
20F4042	2N1533	A	90	120	20- 40@3A	7.85	5.25
21FX3818	2N1534	A	90	40	35- 70@3A	3.00	1.35
20F4436	2N1534A*	A	90	40	35- 70@3A	2.75	1.85
21FX3819	2N1535	A	90	60	35- 70@3A	2.10	1.40
20F4437	2N1535A*	A	90	60	35- 70@3A	2.85	1.90
21FX3820	2N1536	A	90	80	35- 70@3A	3.20	2.15
20F4438	2N1536A*	A	90	80	35- 70@3A	3.95	2.65
21FX3821	2N1537	A	90	100	35- 70@3A	4.65	3.10
20F4439	2N1537A*	A	90	100	35- 70@3A	5.40	3.60
21FX3822	2N1538	A	90	120	35- 70@3A	9.15	6.10
20F4043	2N1539	A	90	40	50-100@3A	2.10	1.40
20F4440	2N1539A*	A	90	40	50-100@3A	2.85	1.90
20F4044	2N1540	A	90	60	50-100@3A	2.15	1.44
20F4441	2N1540A*	A	90	60	50-100@3A	2.90	1.94
20F4045	2N1541	A	90	80	50-100@3A	3.75	2.15
20F4046	2N1542	A	90	100	50-100@3A	4.80	3.20
20F4047	2N1543	A	90	120	50-100@3A	10.40	6.95
21FX3823	2N1544	A	90	40	75-150@3A	2.15	1.44
20F4442	2N1544A*	A	90	40	75-150@3A	2.90	1.94
21FX3824	2N1545	A	90	60	75-150@3A	2.60	1.75
20F4443	2N1545A*	A	90	60	75-150@3A	3.30	2.25
21FX3825	2N1546	A	90	80	75-150@3A	3.95	2.65
20F4444	2N1546A*	A	90	80	75-150@3A	4.70	3.15
21FX3826	2N1547	A	90	100	75-150@3A	5.70	3.80
21FX3827	2N1548	A	90	120	75-150@3A	6.45	4.30

10 AMP PNIP TRANSISTORS

20F4356	2N2526	A	85	80	20-50@3A	7.10	4.75
20F4357	2N2527	A	85	120	20-50@3A	9.30	6.20
20F4358	2N2528	A	85	160	20-50@3A	14.85	9.90

POWER TRANSISTOR/DIODE HEAT SINK—Fig. J

Type MS-10. Aluminum alloy, black anodized heat sink with thermal resistance of 3°C/W. May be used with forced air for an even lower thermal resistance. Drilled to mount one TO-3 power transistor and/or two 10-32 stud mounted rectifiers. One MK-15 transistor mounting kit (see below) included. Size: 4½x3¹⁄₁₆x1" high. Shpg. wt. 2 lb.

21F4050. 1-24..........2.25 **25-99**..........**1.95**

POWER TRANSISTOR MOUNTING KITS

Provide hardware to mount TO-3 power transistors. Include socket, two sheet metal screws and insulating bushings for securing transistor to socket, insulating washer and mounting templates. May be used without washer for a thermal resistance of about .20. *Typical thermal resistance, transistor case to mounting surface (°C/W).

Stk. No.	Type	Washer	Res*	1-99	100-999
21F4090	MK-10	Teflon coated glass cloth	1.45	.23	.15
21F4091	MK-15	Mica	.80	.23	.15
21F4092	MK-20	Anodized Aluminum	.40	.35	.23

10 AMP POWER TRANSISTORS

Stock No.	Type	Fig.	Pc Watts	BVCBO Volts	hFE @ IC	1-99	100-999
21F4013	2N627	A	90	40	10-30@10A	3.45	2.30
21F4014	2N628	A	90	60	10-30@10A	4.35	2.90
21F4015	2N629	A	90	80	10-30@10A	6.90	4.60
21F4016	2N630	A	90	100	10-30@10A	9.75	6.50

15 AMP POWER TRANSISTORS

*Megalife transistor

21FX4384	2N1120	B	90	80	20-50 @10A	8.25	5.50
21FX3828	2N1549	A	90	40	10-30 @10A	3.45	2.30
21FX3829	2N1550	A	90	60	10-30 @10A	4.35	2.90
21FX3830	2N1551	A	90	80	10-30 @10A	6.90	4.60
20F4445	2N1551A*	A	90	80	10-30 @10A	6.90	4.60
21FX3831	2N1552	A	90	100	10-30 @10A	9.75	6.50
20F4446	2N1552A*	A	90	100	10-30 @10A	9.50	6.35
20F4370	2N1553	A	90	40	30-60 @10A	2.70	1.80
20F4447	2N1553A*	A	90	40	30-60 @10A	3.45	2.30
20F4371	2N1554	A	90	60	30-60 @10A	3.20	2.15
20F4448	2N1554A*	A	90	60	30-60 @10A	3.95	2.65
21FX3869	2N1555	A	90	80	30-60 @10A	5.25	3.50
20F4449	2N1555A*	A	90	80	30-60 @10A	6.00	4.00
21FX3882	2N1556	A	90	100	30-60 @10A	6.45	4.30
20F4450	2N1556A*	A	90	100	30-60 @10A	7.20	4.80
21FX3832	2N1557	A	90	40	50-100@10A	3.60	2.40
20F4451	2N1557A*	A	90	40	50-100@10A	3.95	2.65
21FX3833	2N1558	A	90	60	50-100@10A	5.40	3.60
21FX3834	2N1559	A	90	80	50-100@10A	8.10	5.40
21FX3835	2N1560	A	90	100	50-100@10A	12.75	8.50
20F4452	2N1560A*	A	90	100	50-100@10A	8.70	5.80
20F4274	2N2075	G	170	80	20-40 @5A	13.10	8.75
20F4453	2N2075A*	G	170	80	20-40 @5A	9.00	6.00
20F4275	2N2076	G	170	70	20-40 @5A	6.15	4.10
20F4454	2N2076A*	G	170	70	20-40 @5A	5.25	3.50
20F4276	2N2077	G	170	50	20-40 @5A	4.25	2.85
20F4277	2N2078	G	170	40	20-40 @5A	2.90	1.95
20F4455	2N2078A*	G	170	40	20-40 @5A	3.35	2.25
20F4278	2N2079	G	170	80	35-70 @5A	14.25	9.50
20F4456	2N2079A*	G	170	80	35-70 @5A	10.85	7.25
20F4279	2N2080	G	170	70	35-70 @5A	8.90	5.95
20F4457	2N2080A*	G	170	70	35-70 @5A	6.65	4.45
20F4280	2N2081	G	170	50	35-70 @5A	4.65	3.10
20F4281	2N2082	G	170	40	35-70 @5A	3.20	2.15
21FX3876	2N173	G	150	60	35-70 @5A	6.35	4.00
21FX3875	2N174	G	150	80	35-70 @5A	4.50	3.00
20F4459	2N174A*	G	150	80	35-70 @5A	7.65	5.11
21FX3880	2N277	G	150	40	35-70 @5A	3.45	2.30
21FX3878	2N278	G	150	50	35-70 @5A	4.85	3.25
21FX3881	2N441	G	150	40	35-70 @5A	3.05	2.05
21FX3879	2N442	G	150	50	20-40 @5A	4.40	2.95
21FX3877	2N443	G	150	60	20-40 @5A	5.45	3.65
21FX3874	2N1099	G	150	80	35-70 @5A	10.50	6.55
21FX3873	2N1100	G	150	100	25-50 @5A	18.00	12.00
21FX3884	2N1358	G	150	80	25-50 @5A	16.50	11.00
20F4055	2N1412	G	150	100	25-50 @5A	14.25	9.50

25 AMP POWER TRANSISTORS

21FX4378	2N1162	A	90	50	15-65 @25A	5.40	3.60
21FX4379	2N1163	B	90	50	15-65 @25A	5.40	3.60
21FX4380	2N1164	A	90	80	15-65 @25A	8.25	5.50
20F4407	2N1164A*	A	90	80	15-65 @25A	10.85	7.25
21FX4381	2N1165	B	90	80	15-65 @25A	10.10	6.75
20F4408	2N1165A*	B	90	80	15-65 @25A	10.85	7.25
21FX4382	2N1166	A	90	100	15-65 @25A	15.00	10.00
20F4409	2N1166A*	A	90	100	15-65 @25A	15.75	10.50
21FX4383	2N1167	B	90	100	15-65 @25A	15.00	10.00
20F4458	2N1167A*	B	90	100	15-65 @25A	15.75	10.50

30 AMP POWER TRANSISTORS

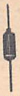
20F4362	2N2152	G	170	45	50-100@5A	3.60	2.40
20F4460	2N2152A*	G	170	45	50-100@5A	5.34	2.90
20F4363	2N2153	G	170	60	50-100@5A	5.55	3.70
20F4461	2N2153A*	G	170	60	50-100@5A	6.30	4.20
20F4364	2N2154	G	170	75	50-100@5A	10.10	6.75
20F4462	2N2154A*	G	170	75	50-100@5A	10.85	7.25
20F4365	2N2155	G	170	90	50-100@5A	15.35	10.25
20F4463	2N2155A*	G	170	90	50-100@5A	16.10	10.75
20F4366	2N2156	G	170	45	80-160@5A	4.10	2.75
20F4464	2N2156A*	G	170	45	80-160@5A	4.85	3.25
20F4367	2N2157	G	170	60	80-160@5A	6.35	4.25
20F4465	2N2157A*	G	170	60	80-160@5A	7.10	4.75
20F4368	2N2158	G	170	75	80-100@5A	10.85	7.25
20F4369	2N2159	G	170	90	80-100@5A	16.25	10.85
20F4466	2N2159A*	G	170	90	80-100@5A	17.00	11.35

60 AMP POWER TRANSISTORS

20F4389	MP500	G	170	45	30-60 @15A	6.35	4.25
20F4390	MP501	G	170	60	30-60 @15A	10.80	7.20
20F4467	MP501A*	G	170	60	30-60 @15A	11.55	7.70
20F4391	MP502	G	170	75	30-60 @15A	14.25	9.50
20F4468	MP502A*	G	170	75	30-60 @15A	15.00	11.00
20F4392	MP503	G	170	90	30-60 @15A	20.25	13.50
20F4393	MP504	G	170	45	50-100@15A	7.40	4.95
20F4469	MP504A*	G	170	45	50-100@15A	8.15	5.45
20F4394	MP505	G	170	60	50-100@15A	12.00	8.00
20F4470	MP505A*	G	170	60	50-100@15A	12.75	8.50
20F4395	MP506	G	170	75	50-100@15A	16.10	10.75
20F4396	MP507	G	170	90	50-100@15A	22.50	15.00

MOTOROLA SILICON RECTIFIERS

NEWARK STOCKS
COMPLETE LINES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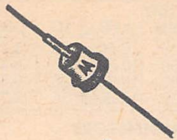
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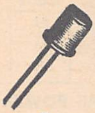
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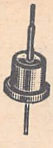
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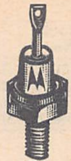

E

SUB MINIATURE RECTIFIERS (FIG. A)

*60 cps. @ 25°C.

Stock No.	Type No.	PIV	Av. Half wave rect. amps.	Max. 1-Cyc. Surge I*	1-99	100-999
20F4015	1N3282	1000	100 ma 25°C	50A	5.00	3.35
20F4016	1N3283	1500			6.60	4.40
20F4017	1N3284	2000			8.55	5.70
20F4018	1N3285	2500			10.05	6.70
20F4019	1N3286	3000			12.00	8.00

FLANGELESS RECTIFIERS (FIG. B)

Stock No.	Type No.	PIV	Av. Half wave rect. amps.	Max. 1-Cyc. Surge I*	1-99	100-999
21FX4451	1N2610	100	.750 @ 50°C	30A	1.05	.70
21FX4452	1N2611	200			1.18	.79
21FX4453	1N2612	300			1.55	1.03
21FX4454	1N2613	400			1.70	1.16
21FX4455	1N2614	500			1.95	1.30
21FX4456	1N2615	600			2.30	1.55
20F4056	1N2616	800			4.85	3.25
20F4057	1N2617	1000			7.50	5.00
20F4397	1N3189	200	1@100°C	30A	3.45	2.30
20F4398	1N3190	400			6.15	4.10
20F4399	1N3191	600			9.30	6.20

SINGLE-ENDED RECTIFIERS (FIG. C)

Stock No.	Type No.	PIV	Av. Half wave rect. amps.	Max. 1-Cyc. Surge I*	1-99	100-999
21F4060	1N1563	100	1.0 @ 25°C	70A	1.35	.90
21F4061	1N1564	200			1.45	.97
21F4062	1N1565	300			1.60	1.05
21F4063	1N1566	400			1.75	1.15
21F4056	1N1563A	100	1.5 @ 25°C	70A	1.70	1.15
21F4057	1N1564A	200			2.10	1.40
21F4058	1N1565A	300			2.25	1.50
21F4059	1N1566A	400			2.80	1.85

TOP HAT RECTIFIERS (FIG. D)

Stock No.	Type No.	PIV	Av. Half wave rect. amps.	Max. 1-Cyc. Surge I*	1-99	100-999
20F4058	1N440	100	.300 @ 50°C	15A	.82	.55
20F4059	1N441	200			.85	.55
20F4060	1N442	300			.99	.65
20F4061	1N443	400			1.24	.80
20F4062	1N444	500			1.24	.80
20F4063	1N445	600			1.81	1.20
20F4064	1N440B	100	.750 @ 50°C	15A	.82	.55
20F4065	1N441B	200			.85	.55
20F4066	1N442B	300			.99	.65
20F4067	1N443B	400			1.24	.80
20F4068	1N444B	500	.650@50°C	15A	1.24	.80
20F4069	1N445B	600	.650@50°C	15A	1.81	1.20
21FX4282	1N536	50	.750 @ 50°C	30A	.78	.50
21FX4283	1N537	100			.79	.50
21FX4284	1N538	200			.81	.50
21FX4285	1N539	300			.91	.60
21FX4286	1N540	400			1.06	.70
21FX4289	1N547	600			1.65	1.10
21FX4287	1N1095	500			1.24	.80
21FX4288	1N1096	600			1.65	1.10
20F4070	1N599	50	.600 @ 25°C	10A	.90	.60
20F4071	1N599A	50			1.23	.80
20F4072	1N600	100			.94	.60
20F4073	1N600A	100			1.38	.90
20F4074	1N601	150			.97	.65
20F4075	1N601A	150			1.50	1.00
20F4076	1N602	200			1.00	.65
20F4077	1N602A	200			1.57	1.05
20F4078	1N603	300			1.21	.80
20F4079	1N603A	300			1.95	1.30
20F4080	1N604	400			1.60	1.05
20F4081	1N604A	400			2.35	1.55
20F4082	1N605	500			1.68	1.10
20F4083	1N605A	500			2.47	1.65
20F4084	1N606	600			1.99	1.30
20F4085	1N606A	600			3.31	2.20
20F4086	1N560	800	.600@30°C	15A	4.15	2.75
20F4087	1N561	1000	.600@30°C	15A	6.79	4.50
20F4088	1N1100	100	.750 @ 50°C	15A	.91	.60
20F4089	1N1101	200			1.12	.75
20F4090	1N1102	300			1.45	.95
20F4091	1N1103	400			2.13	1.40
20F4092	1N1104	500			3.00	2.00
20F4093	1N1105	600			3.45	2.30
20F4094	1N1169	400	.500@100°C		1.00	.80
20F4095	1N1217	50	1.2 @ 25°C	15A	.68	.45
20F4096	1N1218	100			.77	.51
20F4097	1N1219	150			.89	.59
20F4098	1N1220	200			.99	.66

(Continued next column)

Top Hat Rectifiers (cont.)

* 60 cps. @ 25°C., except ‡ 1 second.

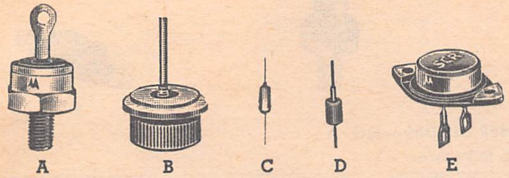
Stock No.	Type No.	PIV	Av. Half Wave Rect. Amps.	Max. 1-Cyc. Surge I*	1-99	100-999
20F4099	1N1221	300	1.2 @ 25°C	15A	1.29	.86
20F4100	1N1222	400			1.50	1.02
20F4101	1N1223	500	1.2 @ 25°C	15A	1.95	1.31
20F4102	1N1224	600			2.55	1.70
20F4103	1N1225	700			3.35	2.24
20F4104	1N1226	800			4.25	2.84
20F4105	1N1443	1000			7.15	4.78
20F4106	1N1217A	50			.84	.56
20F4107	1N1218A	100	1.2 @ 25°C	15A	.99	.66
20F4108	1N1219A	150			1.19	.79
20F4109	1N1220A	200			1.43	.95
20F4110	1N1221A	300			2.00	1.34
20F4111	1N1222A	400			2.55	1.70
20F4112	1N1223A	500			3.55	2.38
20F4113	1N1224A	600			4.75	3.19
20F4114	1N1487	100	.750 @ 25°C	15A	.75	.50
20F4115	1N1488	200			.90	.60
20F4116	1N1489	300			1.12	.75
20F4117	1N1490	440			1.20	.80
20F4118	1N1491	500			1.27	.83
20F4119	1N1492	600			2.28	1.52
20F4120	1N1692	100	.600 @ 50°C	20A	.70	.45
20F4121	1N1693	200			.85	.55
20F4122	1N1694	300			1.05	.70
20F4123	1N1695	400			1.15	.75
20F4124	1N1696	500			1.20	.80
20F4125	1N1697	600			1.93	1.28

7/16″ STUB-MOUNTED RECTIFIERS (FIG. E)

Stock No.	Type No.	PIV	Av. Half Wave Rect. Amps.	Max. 1-Cyc. Surge I*	1-99	100-999
21FX4290	1N253	100	1.000@135°C	4.0‡	1.57	1.05
21FX4291	1N254	200	.400@135°C	1.5‡	1.75	1.15
21FX4292	1N255	400	.400@135°C	1.5‡	3.00	2.00
21FX4293	1N256	600	.200@135°C	1.0‡	3.70	2.45
20F4126	1N340	100	.200 @ 150°C	10A	1.50	1.00
20F4127	1N349	100			1.42	.95
20F4128	1N337	200			1.71	1.10
20F4129	1N346	200			1.63	1.05
20F4130	1N335	300			2.47	1.65
20F4131	1N344	300			2.32	1.55
20F4132	1N333	400			3.42	2.25
20F4133	1N342	400			3.04	2.00
20F4134	1N339	100	.400 @ 150°C	15A	1.50	1.00
20F4135	1N348	100			1.42	.95
20F4136	1N336	200			1.71	1.10
20F4137	1N345	200			1.63	1.05
20F4138	1N334	300			2.47	1.65
20F4139	1N343	300			2.32	1.55
20F4140	1N332	400			3.42	2.25
20F4141	1N341	400			3.04	2.00
20F4142	1N347	100	1.0@150°C	......	1.72	1.15
20F4143	1N338	100	1.0@150°C	......	1.87	1.25
20F4144	1N562	800	.400@150°C	15A	7.50	5.00
20F4145	1N563	1000	.400@150°C	15A	10.87	7.25
20F4146	1N550	100	.500 @ 100°C	4A	1.35	.90
20F4147	1N551	200			1.44	.95
20F4148	1N552	300			1.83	1.20
20F4149	1N553	400			2.31	1.50
20F4150	1N554	500			2.73	1.80
20F4151	1N555	600			3.90	2.60
20F4152	1N607	50	1.0 @ 100°C	2A	1.32	.85
20F4153	1N607A	50			1.56	1.00
20F4154	1N608	100			1.38	.90
20F4155	1N608A	100			1.62	1.05
20F4156	1N609	150			1.42	.95
20F4157	1N609A	150	1.0 @ 100°C	2A	1.68	1.10
20F4158	1N610	200			1.53	1.00
20F4159	1N610A	200			1.89	1.25
20F4160	1N611	300			1.95	1.30
20F4161	1N611A	300			2.31	1.50
20F4162	1N612	400	1.0 @ 100°C	2A	2.67	1.75
20F4163	1N612A	400			3.07	2.05
20F4164	1N613	500			3.16	2.10
20F4165	1N613A	500			3.64	2.40
20F4166	1N614	600			4.54	3.00
20F4167	1N614A	600			4.87	3.25
21FX4294	1N1115	100	1.5 @ 85°C	30A	1.57	1.05
21FX4295	1N1116	200			1.75	1.15
21FX4296	1N1117	300			2.14	1.40
21FX4297	1N1118	400			3.00	2.00
21FX4298	1N1119	500			3.00	2.00
21FX4299	1N1120	600	1.5@85°C	......	3.70	2.45
20F4168	1N1537	50	1.6 @ 140°C	15A	1.75	1.19
20F4169	1N1538	100			2.30	1.54
20F4170	1N1539	150			2.40	1.61
20F4171	1N1540	200			2.60	1.75
20F4172	1N1541	300			3.09	2.06
20F4173	1N1542	400			4.00	2.68
20F4174	1N1543	500			5.25	3.50
20F4175	1N1544	600			6.35	4.25

SILICON RECTIFIERS CONTINUED ON NEXT PAGE

MOTOROLA SEMICONDUCTORS



11/16" STUD-MOUNTED RECTIFIERS—FIG. A

Cathode connected to case. Suffix "R" indicates reverse polarity.
*60 cps. @ 25°C.

Stock No.	Type No.	Piv	Av. Half Wave Rect. Amps.	Max. 1-cyc. Surge I*	1-99	100-999
21FX3885	1N3208	50	15 A 150°C	250A	1.55	1.04
20F4010	1N3208R	50			1.55	1.04
21FX3886	1N3209	100			1.60	1.09
20F4011	1N3209R	100			1.60	1.09
1FX3887	1N3210	200			2.15	1.46
0F4012	1N3210R	200			2.15	1.46
FX3888	1N3211	300			2.70	1.80
20F4013	1N3211R	300			2.70	1.80
21FX3889	1N3212	400			3.30	2.20
20F4014	1N3212R	400			3.30	2.20

GENERAL PURPOSE INDUSTRIAL RECTIFIERS—FIG. B

Cathode connected to case. Suffix "R" indicates reverse polarity.

20F4000	MR322	50	18 A 150°C	300A	.73	.49
20F4001	MR322R	50			.73	.49
20F4002	MR323	100			.81	.54
20F4003	MR323R	100			.81	.54
20F4004	MR324	200			1.20	.80
20F4005	MR324R	200			1.20	.80
20F4006	MR325	300			1.54	1.03
20F4007	MR325R	300			1.54	1.03
20F4008	MR326	400			1.93	1.29
20F4009	MR326R	400			1.93	1.29

SILICON CONTROLLED RECTIFIERS—FIG. E

*@ 100°C with negligible power dissipation.

Stk. No.	Type	PFV and PRV* (Volts)	1-99	100-999
20F4400	MCR649-1	25	9.80	6.55
20F4401	MCR649-2	50	10.40	6.95
20F4402	MCR649-3	100	11.85	7.90
20F4403	MCR649-4	200	16.85	11.25
20F4404	MCR649-5	300	24.75	16.50
20F4405	MCR649-6	400	33.00	22.00
20F4406	MCR649-7	500	40.00	27.00

SILICON TC REFERENCE DIODES

Fig. C. Dissipation: 400 mw @ 50°C. Vz=6.2±.3V @ Iz=7.5 ma.

Stock No.	Type No.	V.-Temp. Coef. %/°C.	Temp. Range °C.	Max. Dyn. Z Ω	1-24	25-99	100-up
20F4176	1N821	.01	—55-+100	15	5.50	5.10	4.10
20F4177	1N821A	.01	—55-+100	10	6.10	5.65	4.55
20F4178	1N823	.005	—55-+100	15	7.35	6.85	5.50
20F4179	1N823A	.005	—55-+100	10	8.00	7.50	6.00
20F4180	1N825	.002	—55-+100	15	11.25	10.55	8.45
20F4181	1N825A	.002	—55-+100	10	12.00	11.25	9.00
20F4182	1N827	.001	—55-+100	15	28.75	27.00	21.60
20F4183	1N827A	.001	—55-+100	10	31.25	29.35	23.50

(Silicon TC Reference Diodes Continued Next Column)

SILICON TC REFERENCE DIODES (Continued)

Fig. C. Dissipation: 400 mw @ 50°C. Vz=8.4±.4V @ Iz=10 ma.

Stk. No.	Type	V.-Temp. Coef. %/°C.	Temp. Range °C.	Max. Dyn ZΩ	1-24	25-99	100-up
20F4199	1N3154	.01	—55-+100	15	7.80	7.30	5.85
20F4200	1N3154A	.01	—55-+150	15	8.75	8.15	6.55
20F4201	1N3155	.005	—55-+100	15	12.15	11.35	9.10
20F4202	1N3155A	.005	—55-+150	15	13.10	12.30	9.85
20F4203	1N3156	.002	—55-+100	15	18.00	16.85	13.50
20F4204	1N3156A	.002	—55-+150	15	19.40	18.15	14.55
20F4205	1N3157	.001	—55-+100	15	27.00	25.35	20.30

Fig. C. Dissipation: 500 mw @ 25°C. Vz=9.0±.45V @ Iz=7.5 ma.

21FX3836	1N935	.01	0-+ 75	20	4.05	3.80	3.05
21FX3837	1N935A	.01	—55-+100	20	4.40	4.10	3.30
21FX3838	1N935B	.01	—55-+150	20	5.00	4.65	3.75
21FX3839	1N936	.005	0-+ 75	20	4.70	4.35	3.50
21FX3840	1N936A	.005	—55-+100	20	5.60	5.25	4.20
21FX3841	1N936B	.005	—55-+150	20	6.55	6.10	4.90
21FX3842	1N937	.002	0-+ 75	20	7.50	7.00	5.60
21FX3843	1N937A	.002	—55-+100	20	8.15	7.60	6.10
21FX3844	1N937B	.002	—55-+150	20	9.05	8.50	6.80
21FX3845	1N938	.001	0-+ 75	20	9.05	8.50	6.80
21FX3846	1N938A	.001	—55-+100	20	9.80	9.15	7.35
21FX3847	1N938B	.001	—55-+150	20	13.10	12.30	9.85
21FX3848	1N939	.0005	0-+ 75	20	21.25	19.90	15.95
21FX3849	1N939A	.0005	—55-+100	20	27.50	25.80	20.65
21FX3850	1N939B	.0005	—55-+150	20	30.60	28.75	23.00

Fig. D. Dissipation: 750 mw @ 25°C. Vz=9.3±.4V @ Iz=10 ma.

21FX3851	1N2620	.01	0-+ 75	15	4.40	4.10	3.30
21FX3852	1N2620A	.01	—55-+100	15	4.70	4.35	3.50
21FX3853	1N2620B	.01	—55-+150	15	5.30	4.90	3.95
21FX3854	1N2621	.005	0-+ 75	15	4.95	4.60	3.70
21FX3855	1N2621A	.005	—55-+100	15	5.95	5.55	4.45
21FX3856	1N2621B	.005	—55-+150	15	7.20	6.75	7.50
21FX3857	1N2622	.002	0-+ 75	15	8.15	7.60	5.40
21FX3858	1N2622A	.002	—55-+100	15	8.75	8.15	6.10
21FX3859	1N2622B	.002	—55-+150	15	10.00	9.35	6.55
21FX3860	1N2623	.001	0-+ 75	15	9.40	8.80	7.05
21FX3861	1N2623A	.001	—55-+100	15	10.75	10.05	8.05
21FX3862	1N2623B	.001	—55-+150	15	14.40	13.50	10.80
21FX3863	1N2624	.0005	0-+ 75	15	23.45	22.00	17.60
21FX3864	1N2624A	.0005	—55-+100	15	30.65	28.80	23.05
21FX3865	1N2624B	.0005	—55-+150	15	41.00	38.50	30.80

Fig. C. Dissipation: 500 mw @ 25°C. Vz=11.7±.58V @ 7.5 ma.

20F4184	1N941	.01	0-+ 75	30	5.30	4.90	3.90
20F4185	1N941A	.01	—55-+100	30	5.60	5.25	4.20
20F4186	1N941B	.01	—55-+150	30	6.50	6.05	4.85
20F4187	1N942	.005	0-+ 75	30	6.05	5.65	4.55
20F4188	1N942A	.005	—55-+100	30	7.30	6.80	5.45
20F4189	1N942B	.005	—55-+150	30	8.55	8.00	6.40
20F4190	1N943	.002	0-+ 75	30	9.75	9.10	7.30
20F4191	1N943A	.002	—55-+100	30	10.60	9.90	7.95
20F4192	1N943B	.002	—55-+150	30	11.85	11.10	8.90
20F4193	1N944	.001	0-+ 75	30	11.85	11.10	8.90
20F4194	1N944A	.001	—55-+100	30	12.80	12.00	9.60
20F4195	1N944B	.001	—55-+150	30	17.00	15.90	12.75
20F4196	1N945	.0005	0-+ 75	30	27.50	25.80	20.65
20F4197	1N945A	.0005	—55-+100	30	35.60	33.40	26.75
20F4198	1N945B	.0005	—55-+150	30	40.00	37.55	30.00

Fig. D. Dissipation: 750 mw @ 25°C. Vz=11.7±.58V @Iz=7.5 ma.

20F4375	1N3580	.01	0-+ 75	25	5.30	4.90	4.25
20F4376	1N3580A	.01	—55-+100	25	5.65	5.20	4.50
20F4377	1N3580B	.01	—55-+150	25	6.50	6.00	5.20
20F4378	1N3581	.005	0-+ 75	25	6.05	5.55	4.85
20F4379	1N3581A	.005	—55-+100	25	7.20	6.60	5.75
20F4380	1N3581B	.005	—55-+150	25	8.45	7.75	6.75
20F4381	1N3582	.002	0-+ 75	25	9.75	8.95	7.80
20F4382	1N3582A	.002	—55-+100	25	10.65	9.80	8.50
20F4383	1N3582B	.002	—55-+150	25	11.90	10.90	9.50

ZENER DIODES

Motorola Zener Diodes eliminate design "guesswork" with complete specification of test points. Nominal zener voltage is tested at the ¼ power point, the point at which they are used in typical applications. Dynamic impedance is measured at two points, assuring high-quality devices with sharp zener knees. Diodes range from 400 milliwatts glass to 50 watt heavy-duty diffused-junction zeners . . . with voltages from 2.4 to 200.

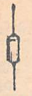
INDUSTRIAL ¼ WATT ALLOY ZENER DIODES—FIG. C

Suffix "5" indicates ±5% tolerance. Other units, ±20%.

Stock No.	Type	Nominal Voltage @ IZT (VZ) Volts	1-99	100-up	Stock No.	Type	Nominal Voltage @ IZT (VZ) Volts	1-99	100-up	Stock No.	Type	Nominal Voltage @ IZT (VZ) Volts	1-99	100-up
20F4261	¼M3.6AZ5	3.6	4.00	3.20	20F4476	¼M2.4AZ	2.4	2.10	1.70	20F4257	¼M5.1AZ5	5.1	4.00	3.20
20F4499	¼M3.9AZ	3.9	2.10	1.70	20F4206	¼M2.4AZ5	2.4	4.00	3.20	20F4480	¼M5.6AZ	5.6	2.10	1.70
20F4262	¼M3.9AZ5	3.9	4.00	3.20	20F4477	¼M2.7AZ	2.7	2.10	1.70	20F4258	¼M5.6AZ5	5.6	4.00	3.20
20F3700	¼M4.3AZ	4.3	2.10	1.70	20F4207	¼M2.7AZ5	2.7	4.00	3.20	20F4481	¼M6.2AZ	6.2	2.10	1.70
20F4263	¼M4.3AZ5	4.3	4.00	3.20	20F4478	¼M3.0AZ	3.0	2.10	1.70	20F4259	¼M6.2AZ5	6.2	4.00	3.20
20F3701	¼M4.7AZ	4.7	2.10	1.70	20F4208	¼M3.0AZ5	3.0	4.00	3.20	20F4482	¼M6.8AZ	6.8	2.10	1.70
20F4264	¼M4.7AZ5	4.7	4.00	3.20	20F4479	¼M3.3AZ	3.3	2.10	1.70	20F4260	¼M6.8AZ5	6.8	4.00	3.20
					20F4209	¼M3.3AZ5	3.3	4.00	3.20					

MOTOROLA ZENER DIODES

NEWARK SHIPS
FROM COMPLETE STOCKS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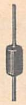
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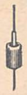
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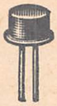
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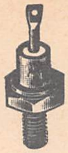
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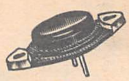
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INDUSTRIAL ¼ WATT DIFFUSED ZENER DIODES—FIG. A

No suffix on Type number indicates ±20% tolerance; "5" suffix indicates ±5% tolerance.

Stk. No.	Type	Vz	1-99	100-up
21F4400	¼M6.8Z5	6.8	4.00	3.20
20F4483	¼M7.5Z	7.5	2.10	1.70
21F4401	¼M7.5Z5	7.5	4.00	3.20
20F4484	¼M8.2Z	8.2	2.10	1.70
21F4402	¼M8.2Z5	8.2	4.00	3.20
20F4485	¼M9.1Z	9.1	2.10	1.70
21F4403	¼M9.1Z5	9.1	4.00	3.20
20F4486	¼M10Z	10	2.10	1.70
21F4404	¼M10Z5	10	4.00	3.20
21F4405	¼M11Z5	11	4.00	3.20
21F4406	¼M12Z5	12	4.00	3.20
21F4407	¼M13Z5	13	4.00	3.20
21F4408	¼M14Z5	14	4.00	3.20
20F4487	¼M15Z	15	2.10	1.70
21F4409	¼M15Z5	15	4.00	3.20
21F4410	¼M16Z5	16	4.00	3.20
21F4411	¼M17Z5	17	4.00	3.20
21F4412	¼M18Z5	18	4.00	3.20
21F4413	¼M19Z5	19	4.00	3.20
20F4488	¼M20Z	20	2.10	1.70

Stk. No.	Type	Vz	1-99	100-up
21F4414	¼M20Z5	20	4.00	3.20
20F4489	¼M22Z	22	2.10	1.70
21FX4415	¼M22Z5	22	4.00	3.20
21FX4416	¼M24Z5	24	4.00	3.20
21FX4417	¼M25Z5	25	4.00	3.20
21FX4418	¼M27Z5	27	4.00	3.20
21FX4419	¼M30Z5	30	4.35	3.50
21FX4420	¼M33Z5	33	4.35	3.50
21FX4421	¼M36Z5	36	4.35	3.50
20F4490	¼M39Z	39	2.80	2.25
21FX4422	¼M39Z5	39	4.35	3.50
21FX4423	¼M43Z5	43	4.35	3.50
21FX4424	¼M45Z5	45	4.35	3.50
21FX4425	¼M47Z5	47	4.35	3.50
21FX4426	¼M50Z5	50	4.35	3.50
21FX4427	¼M52Z5	52	4.35	3.50
20F4491	¼M56Z	56	2.80	2.25
21FX4428	¼M56Z5	56	4.35	3.50
21FX4429	¼M62Z5	62	4.35	3.50
20F4492	¼M68Z	68	2.80	2.25

Stk. No.	Type	Vz	1-99	100-up
21FX4430	¼M68Z5	68	4.35	3.50
20F4493	¼M75Z	75	2.80	2.25
21FX4431	¼M75Z5	75	4.35	3.50
20F4494	¼M8ZZ	82	2.80	2.25
21FX4432	¼M82Z5	82	4.35	3.50
21FX4433	¼M91Z5	91	4.35	3.50
20F4495	¼M100Z	100	2.80	2.25
21FX4434	¼M100Z5	100	4.35	3.50
21FX4435	¼M105Z5	105	4.35	3.50
21FX4436	¼M110Z5	110	4.35	3.50
20F4496	¼M120Z	120	2.80	2.25
21FX4437	¼M120Z5	120	4.35	3.50
21FX4438	¼M130Z5	130	4.35	3.50
21FX4439	¼M140Z5	140	4.35	3.50
20F4497	¼M150Z	150	2.80	2.2
21FX4440	¼M150Z5	150	4.35	3.5
21FX4441	¼M175Z5	175	4.35	3.5
20F4498	¼M200Z	200	2.80	2.25
21FX4442	¼M200Z5	200	4.35	3.50

INDUSTRIAL 400 MW ALLOY ZENER DIODES—FIG. A

No suffix on Type number indicates ±10% tolerance; "A" suffix indicates ±5% tolerance.

20F4210	1N746	3.3	2.60	2.10
20F3702	1N746A	3.3	3.60	2.85
20F4211	1N747	3.6	2.60	2.10
20F3703	1N747A	3.6	3.60	2.85
20F4212	1N748	3.9	2.60	2.10
20F3704	1N748A	3.9	3.60	2.85
20F4213	1N749	4.3	2.60	2.10
20F3705	1N749A	4.3	3.60	2.85
20F4214	1N750	4.7	2.60	2.10
20F3706	1N750A	4.7	3.60	2.85

20F4265	1N751	5.1	2.60	2.10
20F3707	1N751A	5.1	3.60	2.85
20F4266	1N752	5.6	2.60	2.10
20F3708	1N752A	5.6	3.60	2.85
20F4267	1N753	6.2	2.60	2.10
20F3709	1N753A	6.2	3.60	2.85
20F4268	1N754	6.8	2.60	2.10
20F3710	1N754A	6.8	3.60	2.85
20F4269	1N755	7.5	2.60	2.10

20F3711	1N755A	7.5	3.60	2.85
20F4270	1N756	8.2	2.60	2.10
20F3712	1N756A	8.2	3.60	2.85
20F4271	1N757	9.1	2.60	2.10
20F3713	1N757A	9.1	3.60	2.85
20F4272	1N758	10.0	2.60	2.10
20F3714	1N758A	10.0	3.60	2.85
20F4273	1N759	12.0	2.60	2.10
20F3715	1N759A	12.0	3.60	2.85

400 MILLIWATT DIFFUSED ZENER DIODES—FIG. A

No suffix on Type number indicates ±20% tolerance; "A" suffix indicates ±10% tolerance; "B" suffix indicates ±5% tolerance

Stk. No.	Type	Nom. Zener Volt.	1-99	100-up
20F3815	1N957	6.8	2.20	1.70
21FX4457	1N957B	6.8	3.60	2.65
20F3816	1N958	7.5	2.20	1.70
20F3817	1N958A	7.5	2.55	2.05
21FX4458	1N958B	7.5	3.60	2.65
20F3818	1N959	8.2	2.20	1.70
20F3819	1N959A	8.2	2.55	2.05
21FX4459	1N959B	8.2	3.60	2.65
20F3820	1N960	9.1	2.20	1.70
20F3821	1N960A	9.1	2.55	2.05
21FX4460	1N960B	9.1	3.60	2.65
20F3822	1N961	10	2.20	1.70
20F3823	1N961A	10	2.55	2.05
21FX4461	1N961B	10	3.60	2.65
20F3824	1N962	11	2.20	1.70
20F3825	1N962A	11	2.55	2.05
21FX4462	1N962B	11	3.60	2.65
20F3826	1N963	12	2.20	1.70
20F3827	1N963A	12	2.55	2.05
21FX4463	1N963B	12	3.60	2.65
20F3828	1N964	13	2.20	1.70
20F3829	1N964A	13	2.55	2.05
21FX4464	1N964B	13	3.60	2.65
20F3830	1N965	15	2.20	1.70
21FX4465	1N965B	15	3.60	2.65
20F3831	1N966	16	2.20	1.70
21FX4466	1N966B	16	3.60	2.65

Stk. No.	Type	Nom. Zener Volt.	1-99	100-up
20F3832	1N967	18	2.20	1.70
21FX4467	1N967B	18	3.60	2.65
20F3833	1N968	20	2.20	1.70
21FX4468	1N968B	20	3.60	2.65
20F3834	1N969	22	2.20	1.70
21FX4469	1N969B	22	3.60	2.65
20F3835	1N970	24	2.20	1.70
21FX4470	1N970B	24	3.60	2.65
20F3836	1N971	27	2.20	1.70
21FX4471	1N971B	27	3.60	2.65
20F3837	1N972	30	2.75	2.20
21FX4472	1N972B	30	4.00	3.00
20F3838	1N973	33	2.75	2.20
21FX4473	1N973B	33	4.00	3.00
20F3839	1N974	36	2.75	2.20
21FX4474	1N974B	36	4.00	3.00
21FX4475	1N975B	39	4.00	3.00
20F3840	1N976	43	2.75	2.20
21FX4476	1N976B	43	4.00	3.00
20F3841	1N977	47	2.75	2.20
20F3842	1N977A	47	3.45	2.75
21FX4477	1N977B	47	4.00	3.00
20F3843	1N978	51	2.75	2.20
21FX4478	1N978B	51	4.00	3.00
20F3844	1N979	56	2.75	2.20
21FX4479	1N979B	56	4.00	3.00

Stk. No.	Type	Nom. Zener Volt.	1-99	100-up
20F3845	1N980	62	2.75	2.20
21FX4480	1N980B	62	4.00	3.00
20F3846	1N981	68	2.75	2.20
21FX4481	1N981B	68	4.00	3.00
20F3847	1N982	75	2.75	2.20
21FX4482	1N982B	75	4.00	3.00
20F3848	1N983	82	2.75	2.20
21FX4483	1N983B	82	4.00	3.00
20F3849	1N984	91	2.75	2.20
21FX4484	1N984B	91	4.00	3.00
20F3850	1N985	100	2.75	2.20
21FX4485	1N985B	100	4.00	3.00
20F3851	1N986	110	2.75	2.20
21FX4486	1N986B	110	4.00	3.00
20F3852	1N987	120	2.75	2.20
21FX4487	1N987B	120	4.00	3.00
20F3853	1N988	130	2.75	2.20
21FX4488	1N988B	130	4.00	3.00
20F3854	1N989	150	2.75	2.20
21FX4489	1N989B	150	4.00	3.00
20F3855	1N990	160	2.75	2.20
21FX4490	1N990B	160	4.00	3.00
20F3856	1N991	180	2.75	2.20
21FX4491	1N991B	180	4.00	3.00
20F3857	1N992	200	2.75	2.20
21FX4492	1N992B	200	4.00	3.00

¾ WATT SURMETIC® ZENER DIODES—±5% TOLERANCE—FIG. C

Stk. No.	Type	Vz.	1-24	25-99
20F4422	1N3821A	3.3	2.86	2.69
20F4423	1N3822A	3.6		
20F4424	1N3823A	3.9		
20F4425	1N3824A	4.3		

Stk. No.	Type	Vz	1-24	25-99
20F4426	1N3825A	4.7	2.86	2.69
20F4427	1N3826A	5.1		
20F4428	1N3827A	5.6		

Stk. No.	Type	Vz	1-24	25-99
20F4429	1N3828A	6.2	2.86	2.69
20F4430	1N3829A	6.8		
20F4431	1N3830A	7.5		

1 WATT ALLOY ZENER DIODES—±5% TOLERANCE—FIG. C

Stk. No.	Type	Fig.	Vz	1-99	100-up
20F4384	1N3680B	....	11	3.06	2.30
20F4385	1N3681B	....	12		
20F4386	1N3682B	....	13		
20F4387	1N3683B	....	15		
20F4388	1N3684B	....	16		

Stk. No.	Type	Fig.	Vz	1-99	100-up
20F4410	1N3685B	....	18	3.06	2.30
20F4411	1N3686B	....	20	3.06	2.30
20F4412	1N3687B	....	22	3.06	2.30
20F4413	1N3688B	....	24	3.06	2.30
20F4414	1N3689B	....	27	3.06	2.30
20F4415	1N3690B	....	30	3.39	2.55

Stk. No.	Type	Fig.	Vz	1-99	100-up
20F4416	1N3691B	....	33	3.39	2.55
20F4417	1N3692B	....	36	3.39	2.55
20F4418	1N3693B	....	39	3.39	2.55
20F4419	1N3694B	....	43	3.39	2.55
20F4420	1N3695B	....	47	3.39	2.55
20F4421	1N3696B	....	51	3.39	2.55

MOTOROLA ZENER DIODES

1-WATT ZENER DIODES—FIG. C

No suffix on type number indicates ±20%; "A" suffix indicates ±10%; "B" suffix indicates ±5% tol.

Stk. No.	Type	Vz Volts	1-24	25-99	100-Up
20F3716	1N3016	6.8	3.10	2.95	2.35
21FX4493	1N3016B	6.8	5.05	4.75	3.80
20F3717	1N3017	7.5	3.10	2.95	2.35
21FX4494	1N3017B	7.5	5.05	4.75	3.80
20F3718	1N3018	8.2	3.10	2.95	2.35
21FX4495	1N3018B	8.2	5.05	4.75	3.80
20F3719	1N3019	9.1	3.10	2.95	2.35
21FX4496	1N3019B	9.1	5.05	4.75	3.80
20F3720	1N3020A	10	3.50	3.30	2.65
21FX4497	1N3020B	10	5.05	4.75	3.80
21FX4498	1N3021B	11	5.05	4.75	3.80
20F3721	1N3022	12	3.10	2.95	2.35
21FX4499	1N3022B	12	5.05	4.75	3.80
20F3722	1N3023	13	3.10	2.95	2.35
21FX3700	1N3023B	13	5.05	4.75	3.80
21FX3701	1N3024B	15	5.05	4.75	3.80
20F3723	1N3024A	15	3.50	3.30	2.65
20F3724	1N3025	16	3.10	2.95	2.35
21FX3702	1N3025B	16	5.05	4.75	3.80
20F3725	1N3026	18	3.10	2.95	2.35
21FX3703	1N3026B	18	5.05	4.75	3.80
20F3726	1N3027	20	3.10	2.95	2.35
21FX3704	1N3027B	20	5.05	4.75	3.80
20F3727	1N3028A	22	3.50	3.30	2.65
21FX3705	1N3028B	22	5.05	4.75	3.80
20F3728	1N3029	24	3.10	2.95	2.35
21FX3706	1N3029B	24	5.05	4.75	3.80
21FX3707	1N3030B	27	5.05	4.75	3.80
21FX3708	1N3031B	30	5.05	4.75	3.80
21FX3709	1N3032B	33	5.05	4.75	3.80
21FX3710	1N3033B	36	5.05	4.75	3.80
21FX3711	1N3034B	39	5.05	4.75	3.80
21FX3712	1N3035B	43	5.05	4.75	3.80
21FX3713	1N3036B	47	6.40	6.00	4.80
21FX3714	1N3037B	51	6.40	6.00	4.80
20F3729	1N3037A	51	6.40	6.00	4.80
21FX3715	1N3038B	56	6.40	6.00	4.80
21FX3716	1N3039B	62	6.40	6.00	4.80
21FX3717	1N3040B	68	6.40	6.00	4.80
21FX3718	1N3041B	75	6.40	6.00	4.80
21FX3719	1N3042B	82	6.40	6.00	4.80
21FX3720	1N3043B	91	6.40	6.00	4.80
21FX3721	1N3044B	100	6.40	6.00	4.80
21FX3722	1N3045B	110	6.40	6.00	4.80
21FX3723	1N3046B	120	6.40	6.00	4.80
21FX3724	1N3047B	130	6.40	6.00	4.80
21FX3725	1N3048B	150	6.40	6.00	4.80
21FX3726	1N3049B	160	6.40	6.00	4.80
21FX3727	1N3050B	180	6.40	6.00	4.80
21FX3728	1N3051B	200	6.40	6.00	4.80

INDUSTRIAL 1.5 WATT DIFFUSED DIODES—FIG. D

No suffix on type number indicates ±20% tolerance; "B" suffix indicates ±5% tolerance.

20F3730	1N3785	6.8	4.00	3.75	3.00
20F4215	1N3785B	6.8	7.40	6.95	5.55
0F4216	1N3786B	7.5	7.40	6.95	5.55
0F4217	1N3787B	8.2	7.40	6.95	5.55
F4218	1N3788B	9.1	7.40	6.95	5.55
20F3731	1N3789	10	4.00	3.75	3.00
20F4219	1N3789B	10	7.40	6.95	5.55
20F4220	1N3790B	11	7.40	6.95	5.55
20F3732	1N3791	12	4.00	3.75	3.00
20F4221	1N3791B	12	7.40	6.95	5.55
20F4222	1N3792B	13	7.40	6.95	5.55
20F4223	1.5M14Z5	14	7.40	6.95	5.55
20F3733	1N3793	15	4.00	3.75	3.00
20F4224	1N3793B	15	7.40	6.95	5.55
20F4225	1N3794B	16	7.40	6.95	5.55
20F4226	1.5M17Z5	17	7.40	6.95	5.55
20F4227	1N3795B	18	7.40	6.95	5.55
20F3734	1N3795	18	4.00	3.75	3.00
20F4228	1.5M19Z5	19	7.40	6.95	5.55
20F4229	1N3796B	20	7.40	6.95	5 50
20F3735	1N3796	20	4.00	3.75	3.00
20F4230	1N3797B	22	7.40	6.95	5.55
20F3736	1N3798	24	4.00	3.75	3.00
20F4232	1N3798B	24	7.40	6.95	5.55
20F4283	1.5M25Z5	25	7.40	6.95	5.55
20F4233	1N3799B	27	7.40	6.95	5.55
20F3737	1N3799	27	4.00	3.75	3.00
20F3738	1N3800	30	4.00	3.75	3.00
20F4234	1N3800	30	4.00	3.75	3.00
20F4235	1N3801B	33	7.40	6.95	5.55
20F3739	1N3802	36	4.00	3.75	3.00
20F4236	1N3802B	36	7.40	6.95	5.55
20F4237	1N3803B	39	7.40	6.95	5.55
20F3740	1N3804	43	4.00	3.75	3.00
20F4238	1N3804B	43	7.40	6.95	5.55
20F4239	1.5M45Z5	45	7.40	6.95	5.55
20F3741	1N3805	47	4.00	3.75	3.00
20F4240	1N3805B	47	7.40	6.95	5.55
20F4241	1.5M50Z5	50	7.40	6.95	5.55
20F3742	1N3806	51	4.00	3.75	3.00
20F4372	1N3806B	51	7.40	6.95	5.55
20F4242	1.5M52Z5	52	7.40	6.95	5.55
20F3743	1N3807	56	4.00	3.75	3.00
20F3744	1N3808	62	4.00	3.75	3.00
20F4244	1N3808B	62	7.40	6.95	5.55
20F3745	1N3809	68	4.00	3.75	3.00
20F4231	1N3809B	68	7.40	6.95	5.55
20F3746	1N3810	75	4.00	3.75	3.00
20F4245	1N3810B	75	7.40	6.95	5.55
20F3747	1N3811	82	4.00	3.75	3.00
20F4246	1N3811B	82	7.40	6.95	5.55
20F3748	1N3812	91	4.00	3.75	3.00
20F4247	1N3812B	91	7.40	6.95	5.55
20F4248	1N3813B	100	7.40	6.95	5.55
20F4249	1.5M105Z5	105	8.90	8.35	6.70
20F3749	1N3814	110	5.05	4.75	3.80
20F4250	1N3814B	110	8.90	8.35	6.70
20F3750	1N3815	120	5.05	4.75	3.80
20F4251	1N3815B	120	8.90	8.35	6.70
20F3751	1N3816	130	5.05	4.75	3.80
20F4252	1N3816B	130	8.90	8.35	6.70
20F4253	1.5M140Z5	140	8.90	8.35	7.05
20F3752	1N3817	150	5.05	4.75	3.80
20F4254	1N3817B	150	8.90	8.35	6.70
20F3753	1N3818	160	5.05	4.75	3.80
20F4373	1N3818B	160	8.90	8.35	6.70
20F4255	1.5M175Z5	175	9.35	8.00	7.05
20F3754	1N3819	180	5.05	4.75	3.80
20F4374	1N3819B	180	8.90	8.35	6.70
20F3755	1N3820	200	5.05	4.75	3.80
20F4256	1N3820B	200	8.90	8.35	6.70

10 WATT ZENER DIODES—FIG. E

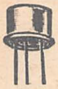
No suffix indicates ±20%; "A" suffix, ±10%; "B" suffix, ±5%. Standard polarity is anode to case, reverse polarity available upon request.

20F3756	1N2970	6.8	5.85	5.50	4.40
21FX3729	1N2970B	6.8	9.30	8.75	7.00
20F3757	1N2971	7.5	5.85	5.50	4.40
21FX3730	1N2971B	7.5	9.30	8.75	7.00
21FX3731	1N2972B	8.2	9.30	8.75	7.00
21FX2732	1N2973B	9.1	9.30	8.75	7.00
21FX4177	1N2974B	10	9.30	8.75	7.00
21FX3733	1N2975B	11	9.30	8.75	7.00
21FX4178	1N2976B	12	9.30	8.75	7.00
21FX3734	1N2977B	13	9.30	8.75	7.00
21FX3735	1N2978B	14	9.30	8.75	7.00
20F3758	1N2979	15	5.85	5.50	4.40
21FX4179	1N2979B	15	9.30	8.85	7.00
20F3759	1N2980A	16	7.20	6.75	5.40
21FX3736	1N2980B	16	9.30	8.75	7.00
21FX3737	1N2981B	17	9.30	8.75	7.00
20F3760	1N2982A	18	7.20	6.75	5.40
21FX3738	1N2982B	18	9.30	8.75	7.00
21FX3739	1N2983B	19	9.30	8.75	7.00
20F3761	1N2984	20	5.85	5.50	4.40
21FX4180	1N2984B	20	9.30	8.75	7.00
20F3762	1N2985	22	5.85	5.50	4.40
21FX4389	1N2985B	22	9.30	8.75	7.00
20F3763	1N2986	24	5.85	5.50	4.40
21FX3741	1N2986B	24	9.30	8.75	7.00
21FX4181	1N2987B	25	9.30	8.75	7.00
20F3764	1N2988	27	5.85	5.50	4.40
21FX3742	1N2988B	27	9.30	8.75	7.00
20F3765	1N2989	30	5.85	5.50	4.40
21FX4182	1N2989B	30	9.30	8.75	7.00
20F3766	1N2990	33	5.85	5.50	4.40
21FX3743	1N2990B	33	9.30	8.75	7.00
20F3767	1N2991	36	5.85	5.50	4.40
21FX3744	1N2991B	36	9.30	8.75	7.00
20F3768	1N2992	39	5.85	5.50	4.40
21FX4183	1N2992B	39	9.30	8.75	7.00
21FX3745	1N2993B	43	9.30	8.75	7.00
21FX3746	1N2994B	45	9.30	8.75	7.00
20F3769	1N2995	47	5.85	5.50	4.40
21FX3747	1N2995B	47	9.30	8.75	7.00
21FX4184	1N2996B	50	9.30	8.75	7.00
20F3770	1N2997	51	5.85	5.50	4.40
21FX3748	1N2997B	51	9.30	8.75	7.00
21FX3749	1N2998B	52	9.30	8.75	7.00
20F3771	1N2999	56	5.85	5.50	4.40
21FX4185	1N2999B	56	9.30	8.75	7.00
20F3772	1N3000	62	5.85	5.50	4.40
21FX3750	1N3000B	62	9.30	8.75	7.00
20F3773	1N3001A	68	7.20	6.75	5.40
21FX3751	1N3001B	68	9.30	8.75	7.00
20F3774	1N3002A	75	7.20	6.75	5.40
21FX3752	1N3002B	75	9.30	8.75	7.00
21FX3753	1N3003B	82	9.30	8.75	7.00
21FX3754	1N3004B	91	9.30	8.75	7.00
20F3775	1N3005	100	5.85	5.50	4.40
21FX4186	1N3005B	100	9.30	8.75	7.00
21FX3755	1N3006B	105	9.30	8.75	7.00
21FX3756	1N3007B	110	9.30	8.75	7.00
21FX3757	1N3008B	120	9.30	8.75	7.00
20F3776	1N3009	130	6.45	6.05	4.85
21FX3758	1N3009B	130	9.30	8.75	7.00
21FX3759	1N3010B	140	9.30	8.75	7.00
20F3777	1N3011	150	6.45	6.05	4.85
21FX4187	1N3011B	150	9.30	8.75	7.00
21FX3760	1N3012B	160	14.95	14.10	11.25
21FX3761	1N3013B	175	14.95	14.10	11.25
21FX3762	1N3014B	180	14.95	14.10	11.25
20F3778	1N3015	200	6.45	6.05	4.85
21FX3763	1N3015B	200	14.95	14.10	11.25

50 WATT ZENER DIODES—FIG. F

No suffix means ±20% tolerance; "A" suffix, ±10%; "B" suffix, ±5%. Std. polarity is anode to case, reverse polarity available on request. Also available stud mounted.

20F3779	1N2804	6.8	6.65	6.25	5.00
21FX3764	1N2804B	6.8	12.50	11.75	9.40
20F3780	1N2805	7.5	6.65	6.25	5.00
21FX3765	1N2805B	7.5	12.50	11.75	9.40
20F3781	1N2806	8.2	6.65	6.25	5.00
21FX3766	1N2806B	8.2	12.50	11.75	9.40
20F3782	1N2807	9.1	6.65	6.25	5.00
21FX3767	1N2807B	9.1	12.50	11.75	9.40
20F3783	1N2808	10	8.75	6.25	5.00
20F3784	1N2808A	10	6.65	8.20	6.55
21FX4246	1N2808B	10	12.50	11.75	9.40
20F3785	1N2809	11	6.65	6.25	5.00
21FX3768	1N2809B	11	12.50	11.75	9.40
20F3786	1N2810	12	6.65	6.25	5.00
21FX4247	1N2810B	12	12.50	11.75	9.40
20F3787	1N2811	13	6.65	6.25	5.00
21FX3769	1N2811B	13	12.50	11.75	9.40
20F3788	1N2812	14	6.65	6.25	5.00
21FX3770	1N2812B	14	12.50	11.75	9.40
20F3789	1N2813	15	6.65	6.25	5.00
21FX4248	1N2813B	15	12.50	11.75	9.40
20F3790	1N2814	16	6.65	6.25	5.00
21FX3771	1N2814B	16	12.50	11.75	9.40
20F3791	1N2815	17	6.65	6.25	5.00
21FX3772	1N2815B	17	12.50	11.75	9.40
20F3792	1N2816	18	6.65	6.25	5.00
21FX3773	1N2816B	18	12.50	11.75	9.40
20F3793	1N2817	19	6.65	6.25	5.00
21FX3774	1N2817B	19	12.50	11.75	9.40
20F3794	1N2818	20	6.65	6.25	5.00
20F3795	1N2818A	20	8.75	8.20	6.55
21FX4249	1N2818B	20	12.50	11.75	9.40
20F3796	1N2819	22	6.65	6.25	5.00
21FX3775	1N2819B	22	12.50	11.75	9.40
20F3797	1N2820	24	6.65	6.25	5.00
20F3798	1N2820A	24	8.75	8.20	6.55
21FX3776	1N2820B	24	12.50	11.75	9.40
20F3799	1N2821	25	6.65	6.25	5.00
21FX4250	1N2821B	25	12.50	11.75	9.40
20F3800	1N2822	27	6.65	6.25	5.00
21FX3777	1N2822B	27	12.50	11.75	9.40
20F3801	1N2823	30	6.65	6.25	5.00
21FX4251	1N2823B	30	12.50	11.75	9.40
20F3802	1N2824	33	6.65	6.25	5.00
20F3803	1N2824A	33	8.75	8.20	6.55
21FX4252	1N2824B	33	12.50	11.75	9.40
20F3804	1N2825	36	6.65	6.25	5.00
21FX4253	1N2825B	36	12.50	11.75	9.40
20F3805	1N2826	39	6.65	6.25	5.00
21FX3778	1N2826B	39	12.50	11.75	9.40
20F3806	1N2827	43	6.65	6.25	5.00
21FX3779	1N2827B	43	12.50	11.75	9.40
21FX3780	1N2828B	45	12.50	11.75	9.40
20F3807	1N2829	47	6.65	6.25	5.00
21FX3781	1N2829B	47	12.50	11.75	9.40
21FX4254	1N2830B	50	12.50	11.75	9.40
20F3808	1N2831	51	6.65	6.25	5.00
21FX3782	1N2831B	51	12.50	11.75	9.40
20F3809	1N3832	56	6.65	6.25	5.00
21FX3783	1N2832B	56	12.50	11.75	9.40
20F3810	1N2833	62	6.65	6.25	5.00
21FX3784	1N2833B	62	12.50	11.75	9.40
21FX3785	1N2834B	68	12.50	11.75	9.40
20F3811	1N2835	75	6.65	6.25	5.00
21FX3786	1N2835B	75	12.50	11.75	9.40
20F3812	1N2836	82	6.65	6.25	5.00
21FX3787	1N2836B	82	12.50	11.75	9.40
21FX3788	1N2837B	91	12.50	11.75	9.40
21FX4255	1N2838B	100	12.50	11.75	9.40
21FX3789	1N2839B	105	21.85	20.55	16.45
21FX3790	1N2840B	110	21.85	20.55	16.45
21FX3791	1N2841B	120	21.85	20.55	16.45
21FX3792	1N2842B	130	21.85	20.55	16.45
21FX3793	1N2843B	150	21.85	20.55	16.45
21FX3794	1N2844B	160	21.85	20.55	16.45
20F3813	1N2845	180	7.45	7.00	5.60
21FX3795	1N2845B	180	21.85	20.55	16.45
20F3814	1N2846	200	7.45	7.00	5.60
21FX4256	1N2846B	200	21.85	20.55	16.45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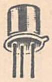
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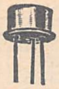
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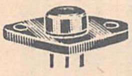
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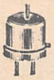
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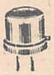
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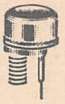
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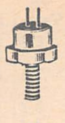
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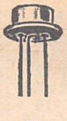
K

SPECIAL MILITARY DESIGNATED SEMICONDUCTORS

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USAF 1N540	MIL-E-1/1089	1.05	.70
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USAF 1N547	MIL-E-1/1089	1.52	1.01
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USA 1N1616	MIL-S-19500/62	12.00	8.00
USAF 1N1199	MIL-E-1/1108	3.75	2.50
USAF 1N1200	MIL-E-1/1108	3.98	2.65
USAF 1N1201	MIL-E-1/1108	5.55	3.70
USAF 1N1202	MIL-E-1/1108	7.05	4.70
USAF 1N1203	MIL-E-1/1108	10.28	6.85
USAF 1N1204	MIL-E-1/1108	12.23	8.15
USAF 1N1205	MIL-E-1/1108	16.30	10.85
USAF 1N1206	MIL-E-1/1108	19.65	13.10
USA 1N2135A	MIL-S-19500/134	13.58	9.05
USAF 2N43A	MIL-T-19500/18	5.25	3.50
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USAF 2N167A	MIL-S-19500/11A	5.65	3.78
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USN 2N333	MIL-T-19500/37A	4.95	3.30
USN 2N334	MIL-T-19500/37A	4.95	3.30
USN 2N335	MIL-T-19500/37A	5.25	3.50
USN 2N337	MIL-S-19500/69C	5.15	3.40
USN 2N338	MIL-S-19500/69C	5.80	3.85
USN 2N396A	MIL-S-19500/64A	1.50	1.00
USAF 2N404	MIL-T-19500/20	.63	.42
JAN 2N428	MIL-S-19500/44B	2.91	1.94
USAF 2N461	MIL-T-19500/45	3.45	2.30
USAF 2N489	MIL-T-19500/75	7.85	5.25
USAF 2N490	MIL-T-19500/75	8.55	5.70
USAF 2N491	MIL-T-19500/75	9.15	6.10
USAF 2N492	MIL-T-19500/75	10.55	7.05
USAF 2N493	MIL-T-19500/75	11.40	7.60
USAF 2N494	MIL-T-19500/75	11.60	7.70
JAN 2N497	MIL-S-19500/74C	9.30	6.20
JAN 2N498	MIL-S-19500/74C	11.80	7.85
USN 2N526	MIL-T-19500/60B	1.74	1.16
JAN 2N656	MIL-S-19500/74C	10.30	6.85
JAN 2N657	MIL-S-19500/74C	10.50	7.00
USN 2N681	MIL-S-19500/108	14.25	9.45
USN 2N682	MIL-S-19500/108	15.00	9.95
USN 2N683	MIL-S-19500/108	16.75	11.20
USN 2N684	MIL-S-19500/108	19.75	13.20
USN 2N685	MIL-S-19500/108	23.50	15.70
USN 2N686	MIL-S-19500/108	28.75	19.20
USN 2N687	MIL-S-19500/108	34.00	22.70
USN 2N688	MIL-S-19500/108	44.50	29.70
USA 2N696	MIL-S-19500/99A	4.45	2.95
USA 2N697	MIL-S-19500/99A	5.25	3.50
USN 2N1303	MIL-S-19500/126A	.51	.34
USN 2N1305	MIL-S-19500/126A	.64	.43
USN 2N1307	MIL-S-19500/126A	1.17	.79

Write NEWARK-CHICAGO for our Bi-Monthly Special Military Designated Semiconductor inventory.,

SILICON PLANAR PASSIVATED AMPLIFIERS—Fig. B

Typical ft, 300 mc. (†) hfe at 1 kc

		Min. Volts		Max.				
Stk. No.	Type	Vceo	Vebo	Vbe SAT Volts	Vce SAT Volts	hFE	1-99	100-999
20F3223	2N759	45	8	......	1.0	36-90†	11.55	7.70
20F3224	2N760	45	8	......	1.0	76-333†	11.90	7.90
20F3225	2N915	50	5	0.9	1.0	40-160	16.20	10.85
20F3226	2N916	25	5	0.9	0.5	50-200	12.30	8.25

SILICON PLANAR EPITAXIAL PASSIVATED (PEP) HIGH SPEED SWITCHES—Fig. B

Typical ft., 350 mc. (*) Vces

		Min. Volts			Maximum				
Stk. No.	Type	Vcer	Vceo	Vebo	Vbe (SAT)	Vce (SAT)	hFE	1-99	100-999
20F3239	2N706	20	....	3	0.9	0.6	20 min.	3.72	2.48
20F3240	2N706A	20	15	5	0.9	0.6	20-60	4.15	2.75
20F3241	2N708	20	15	5	0.8	0.4	30-120	4.60	3.05
20F7565	2N753	20	15	5	0.9	0.6	40-120	6.40	4.25
20F3242	2N834	30*	....	5	0.9	0.25	25 min.	8.25	5.50
20F3243	2N914	20	15	5	0.8	0.25	30-120	7.90	5.25

SILICON PLANAR EPITAXIAL PASSIVATED (PEP)—Fig. A

For switching and amplifier app. Typ. ft., 130 mc.

20F3221	2N2192	......	40	......	1.3	0.35	100-300	18.00	12.0
20F3222	2N2192A	......	40	......	1.3	0.25	100-300	19.50	13.
20F3212	2N2193	......	50	......	1.3	0.35	40-120	15.40	1
20F3213	2N2193A	......	50	......	1.3	0.25	40-120	16.90	[illegible]
20F3214	2N2194	......	40	......	1.3	0.35	20- 60	7.90	[illegible]
20F3215	2N2194A	......	40	......	1.3	0.25	20- 60	10.10	[illegible]
20F3216	2N2195	......	25	......	1.3	0.35	20 min.	5.25	[illegible]
20F3217	2N2195A	......	25	......	1.3	0.25	20 min.	7.90	.25

SILICON PLANAR PASSIVATED SWITCHES—Fig. B

Typical ft., 350 mc.

20F3405	2N717	40	....	5	1.3	1.5	20- 60	5.60	3.75
20F3406	2N718	40	....	5	1.3	1.5	40-120	6.55	4.35
20F3407	2N718A	50	....	7	1.3	1.5	40-120	13.10	8.75
20F3408	2N719	80	....	5	1.3	5.0	20- 60	10.05	6.95
20F3409	2N719A	80	60	7	1.3	5.0	20- 60	11.10	7.40
20F3410	2N720	80	....	5	1.3	5.0	40-120	14.25	9.50
20F3411	2N720A	100	80	7	1.3	5.0	40-120	17.10	11.40

SILICON PLANAR PASSIVATED TRANSISTORS—Fig. A

Storage temp. —65°C to +300°C. Junction temp. —65°C to +200° C, except 2N696, 2N697, 2N699, —65° C to +175° C.

			Max. Volts						
Stk. No.	Type	Max. Watts 25° C,	Vce (SAT)	Vbe (SAT)	Min. Vcer Volts	HFE	hFE	1-99	100-999
20F3189	2N696	0.6	1.5	1.3	40	20- 60	....	4.15	2.75
20F3190	2N697	0.6	1.5	1.3	40	40-120	....	4.45	2.95
20F3412	2N698	0.8	5.0	1.3	80	20- 60	15 min.	10.05	6.95
20F3413	2N699	0.6	5.0	1.3	80	40-120	35-100	14.25	9.50
20F3218	2N1613	0.8	1.5	1.3	50	40-120	30-100	13.10	8.75
20F3219	2N1711	0.8	1.5	1.3	50	100-300	50-200	15.75	10.75
20F3220	2N1893	0.8	5.0	1.3	100	40-120	30-100	17.10	11.40
20F3414	2N2049	0.8	0.4	0.8	50	60min.	75 min.	24.00	16.00

SILICON MESA NPN POWER TRANSISTORS

Typical ft, 15 mc. ‡ @ 100° Case. (†) @ 25° C Case temp. (#) Vcer.

			Min. Volts						
Stk. No.	Type	Fig.	Vceo	Vcex	Max. Watts 25° C,	Watts Dissip.	hFE	1-99	100-999
21FX3606	2N497	C	60	....	0.8	4‡	12-36	8.85	5.90
21FX3607	2N497A	C	60	....	1.0	5‡	12-36	8.85	5.90
21FX3608	2N498	C	100	....	0.8	4‡	12-36	11.35	7.55
21FX3609	2N498A	C	100	....	1.0	5‡	12-36	11.35	7.55
21FX3610	2N656	C	60	....	0.8	4‡	30-90	9.85	6.55
21FX3611	2N656A	C	60	....	1.0	5‡	30-90	9.85	6.55
21FX3612	2N657	C	100	....	0.8	4‡	30-90	10.05	6.70
21FX3613	2N657A	C	100	....	1.0	5‡	30-90	10.05	6.70
20F3191	2N2017	C	60	....	1.0	5‡	75-200	8.35	5.55
20F3192	2N2106	C	60#	....	1.0	......	12-36	3.70	2.45
20F3193	2N2107	C	60#	....	1.0	......	30-90	4.20	2.80
20F3194	2N2108	C	60#	....	1.0	......	75-200	4.35	2.90
20F3415	2N2196	D	60#	80	2.0	10	30-90	7.00	4.70
20F3416	2N2197	D	60#	80	2.0	10	75-200	7.70	5.10
20F3253	2N2201	D	100	120	2.0	10	30-90	14.05	9.35
20F3258	2N2202	E	100	120	1.0	10	30-90	13.20	8.95
20F3263	2N2203	F	100	120	1.0	10	30-90	13.30	8.85
20F3268	2N2204	G	100	120	1.0	10	30-90	15.55	10.35
20F3250	7B1	D	60	80	2.0	10	12-36	11.20	7.45
20F3251	7B2	D	60	80	2.0	10	30-90	12.15	8.10
20F3252	7B3	D	100	120	2.0	10	12-36	13.65	9.10
20F3255	7C1	E	60	80	1.0	10	12-36	10.60	7.05
20F3256	7C2	E	60	80	1.0	10	30-90	11.55	7.70
20F3257	7C3	E	100	120	1.0	10	12-36	13.00	8.65
20F3260	7D1	F	60	80	1.0	10	12-36	10.40	6.95
20F3261	7D2	F	60	80	1.0	10	30-90	11.40	7.60
20F3262	7D3	F	100	120	1.0	10	12-36	12.80	8.55
20F3265	7E1	G	60	80	1.0	10	12-36	12.65	8.45
20F3266	7E2	G	60	80	1.0	10	30-90	13.65	9.10
20F3267	7E3	G	100	120	1.0	10	12-36	15.15	10.10
20F3270	7F1	H	60	80	1.0	4	12-36	11.20	7.45
20F3271	7F2	H	60	80	1.0	4	30-90	12.15	8.10
20F3272	7F3	H	100	120	1.0	4	12-36	13.65	9.10
20F3273	7F4	H	100	120	1.0	4	30-90	14.05	9.35

SILICON UNIJUNCTION TRANSISTORS—Fig. A

Stock No.	Type	Min. Emit. Rev. Volts	Max. IP μa	Max. IEO μa	Intrin. Stand-off Ratio	Rbbo Ohms	1-99	100-999
21F3086	2N489	60	20	20	.51-.62	4.7-6.8	7.10	4.75
20F3360	2N489A	60	15	20	.51-.62	4.7-6.8	7.65	5.10
20F3361	2N489B	60	6	5	.51-.62	4.7-6.8	9.15	6.10
21F3087	2N490	60	20	20	.51-.62	6.2-9.1	7.80	5.20
20F3362	2N490A	60	15	20	.51-.62	6.2-9.1	8.35	5.55
20F3363	2N490B	60	6	5	.51-.62	6.2-9.1	9.85	6.55
21F3088	2N491	60	20	20	.56-.68	4.7-6.8	8.40	5.60
21F3089	2N491A	60	15	20	.56-.68	4.7-6.8	8.90	5.95
20F3364	2N491B	60	6	5	.56-.68	4.7-6.8	10.40	6.95
20F3365	2N492	60	20	20	.56-.68	6.2-9.1	9.80	6.55
20F3366	2N492A	60	15	20	.56-.68	6.2-9.1	10.40	6.95
20F3367	2N492B	60	6	5	.56-.68	6.2-9.1	11.90	6.95
21FX3555	2N493	60	20	20	.62-.75	4.7-6.8	10.75	7.20
20F3368	2N493A	60	15	20	.62-.75	4.7-6.8	11.20	7.50
20F3369	2N493B	60	6	5	.62-.75	4.7-6.8	12.75	8.50
21FX3556	2N494	60	20	20	.62-.75	6.2-9.1	10.90	7.30
20F3370	2N494A	60	15	20	.62-.75	6.2-9.1	11.40	7.60
20F3371	2N494B	60	6	5	.62-.75	6.2-9.1	12.90	8.60
21FX3594	2N1671	30	25	12	.47-.62	4.7-9.1	2.95	1.98
21FX3595	2N1671A	30	25	12	.47-.62	4.7-9.1	3.20	2.14
21FX3561	2N1671B	30	6	5	.47-.62	4.7-9.1	3.55	2.36
20F3417	2N2160	30	25	12	.47-.80	4.0-12.0	1.49	.99

SILICON GROWN DIFFUSED NPN TRANSISTORS—Fig. A

(‡) Pulsed measurement (#) Typical (§) BVCEO

Stk. No.	Type	Max. Diss., mw	Min. BVcbo Volts	Typ. hFE	hfe	1-99	100-999
20F3195	4C28	150	40	15	9-19	2.25	1.65
20F3196	4C29	150	40	30	18-40	1.80	1.20
20F3197	4C30	150	40	55	37-80	2.50	1.85
20F3198	4C31	150	40	115	76-300	2.80	2.10
20F3199	4D20	150	40	15-50‡	....	1.90	1.45
20F3200	4D21	150	40	40-135‡	....	2.50	1.90
20F3201	4D22	150	40	120-250‡	....	3.00	2.30
20F3203	4D24	125	15§	15-50‡	....	1.17	.78
20F3204	4D25	125	15§	40-135‡	....	1.26	.84
20F3205	4D26	125	15§	120-250‡	....	1.83	1.22
20F3418	2N332	150	45	14	9-22	4.65	3.10
20F3419	2N332A	500	45	16	9-22	4.95	3.30
21F3023	2N333	150	45	31	18-44	4.65	3.10
21FX3421	2N333A	500	45	27	18-44	4.95	3.30
21F3084	2N334	150	45	38	18-90	4.65	3.10
21FX3422	2N334A	500	45	36	18-90	4.95	3.30
21F3026	2N335	150	45	56	37-90	4.95	3.30
21FX3423	2N335A	500	45	45	37-90	5.25	3.50
21FX3545	2N335B	500	60	45	37-90	8.90	5.95
21FX3104	2N336	150	45	100	76-333	6.00	4.00
21FX3424	2N336A	500	45	75	76-333	6.30	4.20
21FX3300	2N337	125	45	35	55#	4.85	3.20
20F3420	2N337A	500	45	35	55#	5.15	3.40
21FX3301	2N338	125	45	75	99#	5.50	3.65
20F3244	2N338A	500	45	75	99#	5.80	3.85
21FX3426	2N1277	150	40	20	18-44	4.25	2.84
21FX3427	2N1278	150	40	33	37-90	4.75	3.15
21FX3428	2N1279	150	40	80	76-333	5.60	3.70

SILICON NPNP LOW CURRENT CONTROLLED SWITCHES—Fig. A

Max. dissipation, 300 mw; anode blocking, 40 volts; continuous DC forward current, 100 ma at 100°C; peak recurrent forward current, 0.5 amp at 100°C; peak gate current, 50 ma.

Stk. No.	Type	Anode Ratings		Max. Gate Ratings		Max. Igfa Ma.	1-99	100-999
		Vf max Volts	Ih max Volts	Igc μa	Iga μa			
20F3372	3N58	1.5	1.5	20	....	....	3.40	2.25
20F3373	3N59	1.5	1.5	....	20 (150°C)	1.5	3.75	2.50
20F3374	3N60	1.5	1.5	20	0.2 (25°C)	1.5	4.15	2.75

GERMANIUM ALLOY PNP TRANSISTORS

(*) VRT (**) BVCEO † hfe min.

Stock No.	Type	Fig.	Max. Dissip. 25°C, Mw	Min. Volts BVcer	hFE	Typ. fhfb, Mc	1-99	100-999
21F3025	2N43A	K	240	30	34-65	1.3	4.15	2.75
20F3421	2N44A	K	240	30	18-43	1.0	4.95	3.50
21F3009	2N187A	K	200	25	25-42	1.0	1.50	1.00
21F3010	2N188A	K	200	25	34-65	1.2	1.64	1.09
21F3011	2N189	K	200	25	25-42	0.8	.70	.47
21F3012	2N190	K	200	25	34-65	1.0	.75	.50
21F3013	2N191	K	200	25	53-121	1.2	.83	.55
21F3014	2N192	K	200	25	72-176	1.5	1.57	1.05
21F3016	2N241A	K	200	25	50-125	1.3	.92	.61
21F370	2N319	C	225	20	25-42	2.0	.44	.29
21F371	2N320	C	225	20	34-65	2.5	.59	.39
21F372	2N321	C	225	20	53-121	3.0	.68	.45
21F373	2N322	C	200	18	34-65	3.0	.48	.32
21F374	2N323	C	200	18	53-121	3.5	.60	.40
21F375	2N324	C	200	18	72-198	4.0	.75	.50
21FX3567	2N394	C	150	15	20-150	7.0	.66	.44
20F3121	2N394A	C	150	15	30-120	7.0	.58	.39
21F3112	2N395	C	200	15	20-150	4.5	.67	.44
21F3113	2N396	C	200	20	30-150	8.0	.84	.56
21FX3317	2N396A	C	200	20**	30-150	8.0	.84	.56
21F3114	2N397	C	200	15	40-150	12.0	1.33	.89
21FX3318	2N404	C	150	24*	....	8.0	.63	.42
20F3010	2N404A	C	150	35*	....	8.0	.96	.64
21FX3569	2N413	C	150	18**	20-100	6.0	.83	.55
21FX3570	2N414	C	150	15**	30-120	7.0	.83	.55
20F3122	2N427	C	150	15**	40-80	10.0	1.17	.78
20F3123	2N428	C	150	12**	60 min.	15.0	1.80	1.20
21FX3571	2N461	C	200	35	32†	4.0	1.75	1.15
21F3092	2N508	C	200	16	99-198	4.5	.83	.55
21F3094	2N524	C	225	30	25-42	2.5	1.30	.87
21F3095	2N525	C	225	30	34-65	3.0	1.30	.87
21F3096	2N526	C	225	30	53-90	3.5	1.65	1.10
21F3097	2N527	C	225	30	72-121	4.0	1.91	1.27
21FX3320	2N1057	K	240	30	34-90	1.3	5.25	3.50
21FX3310	2N1097	C	200	16	34-90	3.0	.68	.45
21FX3311	2N1098	C	200	16	25-90	3.0	.60	.40
21FX3313	2N1144	K	140	18	34-90	1.3	.68	.45
21FX3314	2N1145	K	140	18	25-90	1.3	.60	.40
20F3007	2N1175	C	200	25	70-140	4.0	.99	.66
20F3008	2N1175A	C	200	25	70-140	4.0	1.50	1.00
20F3129	2N1303	C	150	25*	20 min.	7.0	.49	.33
20F3130	2N1305	C	150	20*	40-200	8.0	.61	.41
20F3131	2N1307	C	150	15*	60-300	12.0	1.11	.74
21FX3582	2N1413	C	200	25	25-42	3.2	.80	.53
21FX3583	2N1414	C	200	25	34-65	3.6	.83	.55
21FX3584	2N1415	C	200	25	53-90	4.0	.99	.66
21FX3586	2N1614	K	240	40	18-43	1.3	2.50	1.65
20F3133	2N1924	C	225	40	34-65	3.0	1.90	1.25
20F3134	2N1925	C	225	40	53-90	3.5	2.10	1.40
20F3135	2N1926	C	225	40	72-121	4.0	2.45	1.65

GERMANIUM ALLOY NPN TRANSISTORS

21FX3565	2N377	C	150	20	20-60	6.0	1.56	1.04
21FX3566	2N385	C	150	25	30-110	6.0	1.89	1.26
21FX3425	2N388	C	150	20	60-180	12.0	1.50	1.00
21F3115	2N634	C	150	20	15 min.	8.0	1.00	.67
21FX3572	2N634A	C	150	20	40-120	8.0	1.00	.67
21F3116	2N635	C	150	20	25 min.	12.0	1.41	.94
21FX3573	2N635A	C	150	20	80-240	12.0	1.41	.94
21F3117	2N636	C	150	15	35 min.	17.0	2.11	1.41
21FX3574	2N636A	C	150	15	100-300	17.0	2.11	1.41
20F3128	2N1302	C	150	25	20 min.	4.5	.49	.33
21FX3579	2N1304	C	150	20	40-200	8.0	.61	.41
21FX3580	2N1306	C	150	15	60-300	12.0	1.11	.74
21FX3581	2N1308	C	150	15	80 min.	17.0	1.64	1.09
20F3422	2N1605	C	150	24*	40 min.	16.0	1.25	.83

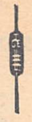
SILICON AVALANCHE ZENER DIODES

Axial lead package rated 1 watt. Test Current, IZT, 100 ma 4JZ4X5.1B thru 8.2B; 50 ma. all others. Specifications at 25°C, unless otherwise noted. Tolerance ±10% of voltage listed; for ±5%, order same type with suffix A (e.g., 4JZ4x5.1A). For 20%, drop suffix B.

Stk. No.	Type 4JZ-	Elect Equiv.	Nom. VZT @IZT	Max. Dyn. Imped., Ohms (Zzt) at Izt	Max. Leakage		Typ. Temp. Coef., % Voltage Reg./°C	Typ. Voltage Regul. Volts	Max. Cont. Zener Cur. Izm, Ma at Max. Amb. Temp. of			1-99	100-999
					Cur. Is Ma	At Vs Volts			50°C	100°C	150°C		
20F3423	4X5.1B	....	5.1	7.0	15.0	4.1	0.013	0.11	160	96	32	4.45	2.95
20F3424	4X5.6B	1N1765	5.6	1.2	5.0	4.5	.021	.14	150	88	29	3.90	2.60
20F3425	4X6.2B	1N1766	6.2	1.5	1.70	5.0	.030	.16	130	79	26	3.90	2.60
20F3426	4X6.8B	1N1767	6.8	1.7	.96	5.4	.037	.20	120	72	24	3.90	2.60
20F3427	4X7.5B	1N1768	7.5	2.1	.75	6.0	.044	.24	109	65	22	3.90	2.60
20F3428	4X8.2B	1N1769	8.2	2.4	.64	6.6	.050	.28	100	60	20	3.90	2.60
20F3429	4X9.1B	1N1770	9.1	3.0	.52	7.3	.056	.34	90	54	18	3.90	2.60
20F3430	4X10B	1N1771	10.0	3.5	.44	8.0	.062	.41	82	49	16	3.90	2.60
20F3431	4X11B	1N1772	11.0	4.2	.38	8.8	.067	.48	74	45	15	3.90	2.60
20F3432	4X12B	1N1773	12.0	5.0	.34	9.6	.071	.57	68	41	14	3.90	2.60
20F3433	4X13B	1N1774	13.0	5.8	.31	10.4	.074	.66	63	38	13	3.90	2.60
20F3434	4X14B	....	14.0	6.6	.29	11.2	.077	.75	58	35	12	3.90	2.60
20F3435	4X15B	1N1775	15.0	7.6	.26	12.0	.080	.86	54	33	11	3.90	2.60
20F3436	4X16B	1N1776	16.0	8.6	.24	12.8	.082	.97	51	31	10	3.90	2.60

SEMICONDUCTORS

NEWARK CAN SUPPLY
ALL G.E. SEMICONDUCTORS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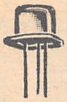
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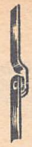
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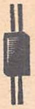
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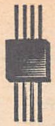
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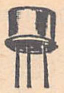
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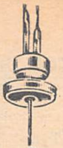
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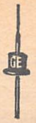
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SILICON AVALANCHE ZENER DIODES (400 MW)—Fig. B

Standard tolerance, ±20%. 5% and 10% available on special order.

Stk. No.	Type	Izm. Ma	Zzt. Ohms @	Izt, Ma	Vz Volts	1-99	100-999
20F3463	1N957	55.0	4.5	18.5	6.8	2.35	1.70
20F3464	1N958	50.0	5.5	16.5	7.5		
20F3465	1N959	45.0	6.5	15.0	8.2		
20F3466	1N960	41.0	7.5	14.0	9.1		
20F3467	1N961	38.0	8.5	12.5	10.0		
20F3468	1N962	32.0	9.5	11.5	11.0		
20F3469	1N963	31.0	11.5	10.5	12.0		
20F3470	1N964	28.0	13	9.5	13.0		
20F3471	1N965	25.0	16	8.5	15.0		
20F3472	1N966	24.0	17	7.8	16.0		
20F3473	1N967	20.0	21	7.0	18.0		
20F3474	1N968	18.0	25	6.2	20.0		
20F3475	1N969	16.0	29	5.6	22.0		
20F3476	1N970	15.0	33	5.2	24.0		
20F3477	1N971	13.0	41	4.6	27.0		

GERMANIUM TUNNEL DIODES

Tightly-controlled parameters; low capacitance; high peak-to-valley current ratio. Switching, 2 milli-μsecs; self-resonant frequencies cover the S band. Inductance of les than 4x10-10 hy. Peak point voltage, 65 mv typical; valley point, 350 mv typical. Forward peak current voltage, 500 mv typical. Storage temp., —55°C to +100°C. Peak point current ±10% except, (*) ±2.5%. (†) ±4%. (‡) —G in mhos x 10-3.

Stk. No.	Type	Cur. Ma Ip	Cur. Ma Iv	Max. Cap., μf	Neg. Cond. ‡	1-99	100-999
20F3136	1N3712(TD-1)	1.0	0.18	10	8 typ.	3.75	2.50
20F3291	1N3713(TD-1A)	1.0*	0.14	5	8.5 ±1	5.60	3.75
20F3137	1N3714(TD-2)	2.2	0.48	25	18 typ.	3.30	2.20
20F3292	1N3715(TD-2A)	2.2*	0.31	10	19 ±3	5.15	3.45
20F3138	1N3716(TD-3)	4.7	1.04	50	40 typ.	2.55	1.70
20F3293	1N3717(TD-3A)	4.7*	0.60	25	41 ±5	4.45	2.95
20F3139	1N3718(TD-4)	10.0	2.20	90	80 typ.	2.55	1.70
20F3294	1N3719(TD-4A)	10.0*	1.40	50	85 ±10	4.45	2.95
20F3140	1N3720(TD-5)	22.0	4.80	150	120 typ.	2.55	1.70
20F3295	1N3721(TD-5A)	22.0*	3.10	100	190 ±30	4.45	2.95
21F3125	1N2939	1.0	0.10	5	6.6 typ.	6.70	4.45
20F3006	1N2939A	1.0*	0.10	4.0	6.6 typ.	13.35	8.90
21F3126	1N2940	1.0	0.13	5	6.6 typ.	4.95	3.30
20F3005	1N2940A	1.0*	0.13	4.0	6.6 typ	10.05	6.70
21F3127	1N2941	4.7	0.6	15	30 typ.	4.15	2.75
20F3004	1N2941A	4.7*	0.6	10	30 typ.	8.25	5.50
21FX3557	1N2969	2.2	0.29	8	16 typ.	4.55	3.05
20F3000	1N2969A	2.2*	0.29	6	16 typ.	9.15	6.10
20F3001	1N3149	10.0	1.3	30	60 typ.	4.15	2.75
20F3002	1N3149A	10.0*	1.3	25	60 typ.	8.25	5.50
20F3003	1N3150	22.0	2.9	60	100 typ.	4.15	2.75
21FX3614	1N3218	1.0	0.22	10	9 typ.	15.00	10.00
21FX3615	1N3218A	1.0	0.22	5	9 typ.	18.00	12.00
21FX3616	1N3219	2.2	0.48	20	18 typ.	12.00	8.00
21FX3617	1N3219A	2.2	0.48	10	18 typ.	15.00	10.00
20F3499	TD-310	4.7	1.04	10	30 typ.	30.00	20.00
20F3500	TD-310A	4.7	1.04	5	30 typ.	35.00	23.50
20F3501	TD-311	10.0	2.2	20	70 typ.	30.00	20.00
20F3502	TD-311A	10.0	2.2	10	70 typ.	35.00	23.50
20F3503	TD-311B	10.0†	1.3	9	70 typ.	40.00	27.00
20F3504	MTD-1	1.0	0.22	10	8 typ.	15.00	10.00
20F3505	MTD-2	2.2	0.48	25	16 typ.	12.50	8.50
20F3506	MTD-3	4.7	1.04	50	30 typ.	10.00	6.65
20F3507	MTD-4	10.0	2.2	90	60 typ.	10.00	6.65

GERMANIUM RATE GROWN NPN TRANSISTORS—Fig. C

(‡) Conversion gain at 1600 Kc. (#) Vcer @ R=10K.

Stk. No.	Type	Max. Dissip. Mw	Min. Vceo Volts	Power Gain at 455 kc, db	hFE	1-99	100-999
21F339	2N78	65	15	26.0-31.0	45-135	2.50	1.65
21FX3559	2N78A	65	20	26.0-31.0	45-135	2.70	1.80
21FX3560	2N167A	65	30	....	17-90	5.10	3.40
21F348	2N169	65	15#	24.0-31.0	34-200	1.57	1.05
21F349	2N169A	65	25#	23.5-31.0	34-200	2.40	1.60
21F3018	2N292	65	15#	21.0-26.0	8-51	.75	.50
21F3019	2N293	65	15#	23.5-28.0	8-51	.83	.55
21FX3307	2N1086	65	9#	23.0-29.0‡	17-200	.83	.70
21FX3308	2N1086A	65	9#	23.0-27.0‡	17-200	1.57	1.05
21FX3309	2N1087	65	9#	25.0-29.0‡	17-200	1.82	1.21
21FX3312	2N1121	65	15	26.5-30.5	34-200	1.57	1.05
21FX3575	2N1217	75	20	....	40-100	2.80	1.90
21FX3585	2N1510	75	70#	....	.8-90	2.40	1.60
20F3132	2N1694	75	20	....	15-45	.99	.66

SILICON SIGNAL DIODES

Rev. recov. with If at 10 ma, Vr at —6 volts and load resistance at 100 ohms, 2 nanosec. (*) Matched pair; (†) Matched quad.

Stk. No.	Type	Fig.	Max. Fwd. Volts at Cur., Ma	Max. Rev. Volts	1-99	100-999
20F3508	1N3604	B	1.0 at 50	50	2.50	1.67
20F3286	1N3605	D	900 at 20	30	2.50	1.67
20F3287	1N3606	B	900 at 20	50	2.95	1.95
20F3288	1N3607	B	1.0 at 50	50	11.50	7.75
20F3289	1N3608	D	900 at 20	30	10.90	7.25
20F3290	1N3609	D	900 at 20	50	13.50	8.90
20F3509	MP-1*	F	1.0 at 50	50	8.25	5.50
20F3510	MP-2*	F	1.0 at 10	30	7.50	5.00
20F3511	MQ-1†	G	1.0 at 50	50	16.50	11.00
20F3512	MQ-2†	G	1.0 at 10	30	15.00	10.00

FIG. B

Stk. No.	Type	Min. Sat. Volts	Max. Rev. Cur., μa at Volts*	Max. Fwd. Cur., Ma at Volts	Max. Rev. Recovery, Nanosec	1-99	100-999
20F3311	1N251	40	0.2 at -10	5 at 1.0	150	4.50	3.15
20F3312	1N252	30	0.1 at -5	10 at 1.0	150	2.85	2.00
20F3313	1N625	30	1.0 at -20	4 at 1.5	1000	1.35	.95
20F3314	1N626	50	1.0 at -35	4 at 1.5	1000	1.70	1.19
20F3315	1N659	60	5.0 at -50	6 at 1.0	300	2.25	1.58
20F3316	1N659A	75	0.025 at -50	10 at 1.0	300	2.25	1.58
20F3317	1N811	30	1.0 at -10	1 at 1.0	250	1.55	1.09
20F3318	1N812	40	0.1 at -10	2 at 1.0	250	2.25	1.58
20F3319	1N813	20	0.5 at -5	5 at 1.0	250	2.00	1.40
20F3320	1N814	50	0.1 at -20	2 at 1.0	250	2.25	1.58
20F3321	1N815	20	0.5 at -5	100 at 1.5	250	2.25	1.58
20F3322	1N891	60	0.1 at -50	50 at 1.0	300	2.50	1.75
20F3323	1N903	40	0.1 at -40	10 at 1.0	4	4.05	2.84
20F3324	1N903A	40	0.1 at -40	20 at 1.0	4	4.05	2.84
20F3325	1N904	30	0.1 at -30	10 at 1.0	4	3.85	2.70
20F3326	1N904A	30	0.1 at -30	20 at 1.0	4	3.85	2.70
20F3327	1N905	20	0.1 at -20	10 at 1.0	4	3.65	2.56
20F3328	1N905A	20	0.1 at -20	20 at 1.0	4	3.65	2.56
20F3329	1N906	20	0.1 at -20	10 at 1.0	4	3.25	2.28
20F3330	1N906A	20	0.1 at -20	20 at 1.0	4	3.25	2.28
20F3331	1N907	30	0.1 at -30	10 at 1.0	4	3.40	2.38
20F3332	1N907A	30	0.1 at -30	20 at 1.0	4	3.40	2.38
20F3333	1N908	40	0.1 at -40	10 at 1.0	4	3.60	2.52
20F3334	1N908A	40	0.1 at -40	20 at 1.0	4	3.60	2.52
20F3335	1N914	100	0.025 at -20	10 at 1.0	4	3.00	2.40
20F3336	1N914A	100	0.025 at -20	20 at 1.0	4	3.00	2.40
20F3337	1N914B	100	0.025 at -20	100 at 1.0	4	4.85	3.26
20F3338	1N916	100	0.025 at -20	10 at 1.0	4	4.05	3.20
20F3339	1N916A	100	0.025 at -20	20 at 1.0	4	4.05	3.20
20F3340	1N916B	100	0.025 at -20	20 at 1.0	4	4.76	3.80
20F3341	1N917	50	0.05 at -10	10 at 1.0	3	4.65	3.84
20F3342	1N997	40	0.025 at -12	10 at 1.0	150	2.90	2.25
20F3513	1N3062	75	0.1 at -50	20 at 1.0	2	5.75	4.00
20F3249	1N3063	......	0.1 at -50	115	2	5.50	3.85
20F3344	1N3064	75	0.1 at -50	10 at 1.0	4	6.50	5.00
20F3345	1N3065	75	0.1 at -50	20 at 1.0†	2	6.50	5.00
20F3346	1N3066	75	0.1 at -50	10 at 1.0	2	5.50	3.85
20F3347	1N3067	30	0.1 at -20	5 at 1.0	2	1.20	.90
20F3348	1N3068	30	0.1 at -20	5 at 1.0	50	1.12	.82
20F3349	1N3124	40	0.1 at -40	20 at 1.0	4	3.00	2.20

(*)@25°C. (†) cc.

LOW CURRENT SCR'S

(‡) w/o Vbo applied. (§) at 25°C juntion

Stock No.	Type		PRV & Vbo Volts	Max. Irms		Max. Req'd. Gate Signal		1-99	100-999
20F3107	2N2322	H	25	1.6	88 case	0.8	200 μa§	6.75	4.50
20F3108	2N2323	H	50	1.6	88 case	0.8	200 μa§	8.40	5.60
20F3109	2N2324	H	100	1.6	88 case	0.8	200 μa§	11.70	7.80
20F3110	2N2325	H	150	1.6	88 case	0.8	200 μa§	13.50	9.00
20F3111	2N2326	H	200	1.6	88 case	0.8	200 μa§	16.50	11.00
20F3112	2N2327	H	250	1.6	88 case	0.8	200 μa§	19.50	13.00
20F3113	2N2328	H	300	1.6	88 case	0.8	200 μa§	24.75	16.50
20F3437	2N2329	H	400	1.6	88 case	0.8	200 μa§	41.25	27.50
20F3438	2N2344	H	25	1.6	58 case	0.8	40 μa§	8.10	5.40
20F3439	2N2345	H	50	1.6	58 case	0.8	40 μa§	10.00	6.50
20F3440	2N2346	H	100	1.6	58 case	0.8	40 μa§	14.10	9.40
20F3441	2N2347	H	150	1.6	58 case	0.8	40 μa§	16.50	11.00
20F3442	2N2348	H	200	1.6	58 case	0.8	40 μa§	19.80	13.20
20F3116	2N1595	H	50	1.6	111 case	0.3	10 ma§	7.65	5.10
20F3117	2N1596	H	100	1.6	88 case	0.3	10 ma§	10.65	7.10
20F3118	2N1597	H	200	1.6	88 case	0.3	10 ma§	15.00	10.00
20F3119	2N1598	H	300	1.6	88 case	0.3	10 ma§	22.50	15.00
20F3120	2N1599	H	400	1.6	88 case	0.3	10 ma§	37.50	25.00

(Continued on next page)

TRANSISTORS–TUNNEL DIODES

LOW CURRENT SCR'S (Continued)

Stk. No.	Type	Fig.	PRV & Vbo Volts	Max. Irms		Max. Req'd Gate Signal		1-99	100-999
				Amps	At °C	Volts	Cur.		
21FX3550	2N1929	I	25	1.1	25 amb.	2	8 ma*	6.15	4.10
21FX3551	2N1930	I	50	1.1	25 amb.	2	8 ma*	7.65	5.10
21FX3552	2N1931	I	100	1.1	25 amb.	2	8 ma*	10.70	7.10
20FX3553	2N1932	I	150	1.1	25 amb.	2	8 ma*	13.20	8.80
20FX3554	2N1933	I	200	1.1	25 amb.	2	8 ma*	15.00	10.00
20F3114	2N1934	I	250	1.1	25 amb.	2	8 ma*	18.00	12.00
20F3115	2N1935	I	300	1.1	25 amb.	2	8 ma*	22.00	14.65
20F3443	C9U	I	Same as 2N1929, but			12 µsec. turn-off time max.		6.75	4.50
20F3444	C9F	I	Same as 2N1930, but					8.40	5.60
20F3445	C9A	I	Same as 2N1931, but					11.70	7.80
20F3446	C9G	I	Same as 2N1932, but					14.60	9.70
20F3447	C9B	I	Same as 2N1933, but					16.50	11.00
20F3448	C9H	I	Same as 2N1934, but					19.80	13.20
20F3449	C9C	I	Same as 2N1935, but					24.20	16.10
20F3450	C15U	J	25	7	75 stud	2.5	25 ma§	4.65	3.10
20F3451	C15F	J	50	7	75 stud	2.5	25 ma§	4.80	3.20
20F3452	C15A	J	100	7	75 stud	2.5	25 ma§	5.10	3.40
20F3453	C15G	J	150	7	75 stud	2.5	25 ma§	5.85	3.90
20F3359	C15B	J	200	7	75 stud	2.5	25 ma§	6.30	4.20
20F3375	C15C	J	300	7	75 stud	2.5	25 ma§	8.70	5.80
20F3376	C15D	J	400	7	75 stud	2.5	25 ma§	10.30	6.85
21FX3437	2N1770	J	25	6	70 stud	2	8 ma*	6.15	4.10
21FX3436	2N1770A	J	25	7	115 stud	2	6 ma†	6.75	4.50
21FX3438	2N1771	J	50	6	70 stud	2	8 ma*	7.65	5.10
21FX3433	2N1771A	J	50	7	115 stud	2	6 ma†	8.40	5.60
21FX3439	2N1772	J	100	6	70 stud	2	8 ma*	10.70	7.10
21FX3429	2N1772A	J	100	7	115 stud	2	6 ma†	11.70	7.80
21FX3440	2N1773	J	150	6	70 stud	2	8 ma*	13.20	8.80
21FX3434	2N1773A	J	150	7	115 stud	2	6 ma†	14.70	9.80
21FX3441	2N1774	J	200	6	70 stud	2	8 ma*	15.00	10.00
21FX3430	2N1774A	J	200	7	115 stud	2	6 ma†	16.70	11.10
21FX3442	2N1775	J	250	6	70 stud	2	8 ma*	18.00	12.00
21FX3435	2N1775A	J	250	7	115 stud	2	6 ma†	22.50	15.00
21FX3443	2N1776	J	300	6	70 stud	2	8 ma*	22.00	14.65
21FX3431	2N1776A	J	300	7	115 stud	2	6 ma†	27.75	18.50
21FX3444	2N1777	J	400	6	70 stud	2	8 ma*	31.00	20.75
21FX3432	2N1777A	J	400	7	115 stud	2	6 ma†	39.00	26.00
20F3454	C12U	J	Same as 2N1770, but			12 µsec. turn-off time max.		6.75	4.50
20F3455	C12F	J	Same as 2N1771, but					8.40	5.60
20F3456	C12A	J	Same as 2N1772, but					11.70	7.80
20F3457	C12G	J	Same as 2N1773, but					14.60	9.70
20F3458	C12B	J	Same as 2N1774, but					16.50	11.00
20F3459	C12H	J	Same as 2N1775, but					19.80	13.20
20F3460	C12C	J	Same as 2N1776, but					24.20	16.10

MEDIUM CURRENT SCR'S—Similar to Fig. J

Stk. No.	Type	PRV & Vbo Volts	Max. Irms		Max. Req'd. Gate Signal			1-99	100-999
			A.	At °C Stud	V.	Ma	Tj		
21F3150	2N681 (C35U)	25	25	57	3	25	125°C	13.10	8.75
21F3151	2N682 (C35F)	50	25	57	3	25	125°C	13.90	9.25
21F3152	2N683 (C35A)	100	25	57	3	25	125°C	15.75	10.50
21F3153	2N684 (C35G)	150	25	57	3	25	125°C	18.75	12.50
21F3154	2N685 (C35B)	200	25	57	3	25	125°C	22.50	15.00
21F3155	2N686 (C35H)	250	25	57	3	25	125°C	27.75	18.50
21F3156	2N687 (C35C)	300	25	57	3	25	125°C	33.00	22.00
21FX3332	2N688 (C35D)	400	25	57	3	25	125°C	43.50	29.00
20F3152	2N689 (C35E)	500	25	57	3	25	125°C	54.00	36.00
20F3275	C35M	600	25	57	3	25	125°C	64.50	43.00
20F3276	C35S	700	25	57	3	25	125°C	75.00	50.00
21FX3333	2N1842 (C36U)	25	16	25	3.5	50	100°C	9.80	6.55
21FX3334	2N1843 (C36F)	50	16	25	3.5	50	100°C	10.40	6.95
21FX3335	2N1844 (C36A)	100	16	25	3.5	50	100°C	11.90	7.90
21FX3336	2N1845 (C36G)	150	16	25	3.5	50	100°C	14.10	9.40
21FX3337	2N1846 (C36B)	200	16	25	3.5	50	100°C	15.40	11.25
21FX3338	2N1847 (C36H)	250	16	25	3.5	50	100°C	20.85	13.90
21FX3339	2N1848 (C36C)	300	16	25	3.5	50	100°C	24.75	16.50
21FX3340	2N1849 (C36D)	400	16	25	3.5	50	100°C	33.00	22.00
20F3153	2N1850 (C36E)	500	16	25	3.5	50	100°C	40.50	27.00
20F3277	C36M	600	16	25	3.5	50	100°C	48.50	32.25
20F3278	C36S	700	16	25	3.5	50	100°C	56.25	37.50
20F3377	C37U	25	16	25	3.5	80	25°C	5.65	3.75
20F3378	C37F	50	16	25	3.5	80	25°C	6.00	4.00
20F3379	C37A	100	16	25	3.5	80	25°C	7.20	4.80
20F3380	C37B	200	16	25	3.5	80	25°C	11.25	7.50
20F3381	C37C	300	16	25	3.5	80	25°C	18.75	12.50
20F3382	C37D	400	91	25	3.5	80	25°C	28.15	18.75
21FX3450	C40U	Same as 2N681, but			guar. 12 µsec. or less turn-off time			14.50	9.65
21FX3451	C40F	Same as 2N682, but						15.30	10.20
21FX3452	C40A	Same as 2N683, but						17.30	11.55
21FX3453	C40G	Same as 2N684, but						20.50	13.75
21FX3454	C40B	Same as 2N685, but						24.75	16.50
21FX3455	C40H	Same as 2N686, but						30.50	20.40
21FX3456	C40C	Same as 2N687, but						36.25	24.20
20F3279	C40D	Same as 2N688, but						47.75	31.90
20F3280	C40E	Same as 2N689, but						59.50	39.60

HIGH CURRENT SCR'S

Stk. No.	Type	PRV Vbo Volts	Max. Idc		Max. Req'd. Gate Signal			1-24	25-up
			A.	At °C Stud	V.	Ma	Tj		
21FX3539	2N1909 (C50U)	25	110	59	3	40	125°C	28.70	21.50
21FX3540	2N1910 (C50F)	50	110	59	3	40	125°C	40.00	30.00
21FX3541	2N1911 (C50A)	100	110	59	3	40	125°C	50.00	38.00
21FX3542	2N1912 (C50G)	150	110	59	3	40	125°C	65.00	50.00
21FX3543	2N1913 (C50B)	200	110	59	3	40	125°C	70.00	54.00
21FX3544	2N1914 (C50H)	250	110	59	3	40	125°C	88.00	67.50
20F3154	2N1915 (C50C)	300	110	59	3	40	125°C	105.00	80.00
20F3155	2N1916 (C50D)	400	110	59	3	40	125°C	145.00	111.00
20F3156	C50E	500	110	59	3	40	125°C	170.00	133.00
20F3383	C50M	600	110	59	3	40	125°C	210.00	160.00
20F3157	C55U	Same as 2N1909, but			guar. 20 µsec. or less turn-off time			33.70	26.50
20F3158	C55F	Same as 2N1910, but						45.00	35.00
20F3159	C55A	Same as 2N1911, but						55.00	43.00
20F3160	C55G	Same as 2N1912, but						70.00	55.00
20F3161	C55B	Same as 2N1913, but						75.00	59.00
20F3162	C55H	Same as 2N1914, but						93.00	72.50
20F3163	C55C	Same as 2N1915, but						110.00	85.00
20F3164	C55D	Same as 2N1916, but						150.00	116.00
20F3461	C55E	Same as C50E, but						175.00	138.00
20F3165	2N2023 (C60U)	25	110	85	3	30	150°C	33.00	24.70
20F3166	2N2024 (C60F)	50	110	85	3	30	150°C	46.00	34.50
20F3167	2N2025 (C60A)	100	110	85	3	30	150°C	57.50	43.70
20F3168	2N2026 (C60G)	150	110	85	3	30	150°C	74.75	57.50
20F3169	2N2027 (C60B)	200	110	85	3	30	150°C	80.50	62.00
20F3170	2N2028 (C60H)	250	110	85	3	30	150°C	101.00	77.60
20F3171	2N2029 (C60C)	300	110	85	3	30	150°C	120.00	92.00
20F3389	C80F	50	235	65	3	100	125°C	99.50	79.50
20F3384	C80A	100	235	65	3	100	125°C	123.00	111.00
20F3390	C80G	150	235	65	3	100	125°C	177.00	141.00
20F3385	C80B	200	235	65	3	100	125°C	202.00	161.00
20F3391	C80H	250	235	65	3	100	125°C	282.00	226.00
20F3386	C80C	300	235	65	3	100	125°C	317.00	254.00
20F3387	C80D	400	235	65	3	100	125°C	440.00	352.00
20F3388	C80E	500	235	65	3	100	125°C	528.00	423.00
20F3392	C80M	600	235	65	3	100	125°C	666.00	525.00

GERMANIUM LOW CURRENT RECTIFIERS

Industry standard for high reliability, offer extremely low forward resistance with high back resistance. Ratings up to 1200 ma and 400 PRV. Max. peak 1-cycle surge, 25 amps. ‡ Full cycle average. † @ 150 VDC. * Fwd/Rev ratio @ 55°C.

Stk. No.	Type	PRV Volts	Max. Idc Ma at 55°C	Max. Rev. Cur., Ma ‡	Max. Drop Volts at Full Load	Max. Oper. Temp.	1-99	100-999
21F314	1N91	100	150	1.35	.22	95°C	.85	.55
21F318	1N151	100	1200	....	......	95°C		
21F315	1N92	200	100	0.95	.19	95°C	1.95	1.30
21F319	1N152	200	1000	....	......	95°C		
21F3175	1N368	200	100	0.3†	.48	55°C	2.55	1.70
21F316	1N93	300	75	0.6	.18	95°C	2.70	1.80
21F320	1N153	300	750	....	......	95°C		
21F351	1N315	300	75	700*	......	85°C	3.00	2.00
21F321	1N158	400	1000	....	......	95°C		

SILICON SUBMINIATURE GLASS RECTIFIERS—Fig. B

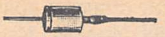
Meet military requirements. Max. full load drop, 1 v. at 25°C. Max. oper. temp., 175°C for 1N645 series, 200°C for 1N3544 series. * Full cycle ave. † @ 150°C. ‡ @ 175°C.

Stock No.	Type	PRV Volts		Max. Idc Ma. at 25°C	Max. Rev. Cur., µa at 100°C*	1-99	100-999
		Repetitive	Transient				
21FX3457	1N645	225	275	400	15	1.98	1.49
20F3015	1N645A	225	275	400	15	3.63	2.66
21FX3458	1N646	300	360	400	15	2.57	1.96
21FX3459	1N647	400	480	400	20	3.26	2.40
21FX3460	1N648	500	600	400	20	3.88	2.96
21FX3461	1N649	600	720	400	25	4.50	3.44
21FX3462	1N676	100	120	200	.2 ma†	1.43	.95
21FX3463	1N677	100	120	400	.2 ma†	1.59	1.06
21FX3464	1N678	200	240	200	.2 ma†	1.85	1.23
21FX3465	1N679	200	240	400	.2 ma†	2.30	1.53
21FX3466	1N681	300	360	200	.2 ma†	2.27	1.51
21FX3467	1N682	300	360	400	.2 ma†	3.00	2.00
21FX3468	1N683	400	480	200	.2 ma†	3.14	2.09
21FX3469	1N684	400	480	400	.2 ma†	3.87	2.58
21FX3470	1N685	500	600	200	.2 ma†	4.01	2.67
21FX3471	1N686	500	600	400	.2 ma†	4.56	3.04
21FX3472	1N687	600	720	200	.2 ma†	4.61	3.07
21FX3473	1N689	600	720	400	.2 ma†	4.98	3.32
20F3207	1N3544	100	120	600	75‡	2.25	1.50
20F3208	1N3545	200	240	600	75‡	2.78	1.85
20F3209	1N3546	300	360	600	75‡	3.49	2.45
20F3210	1N3547	400	480	600	75‡	4.50	3.00
20F3211	1N3548	500	600	600	75‡	5.55	3.70
20F3462	1N3549	600	720	600	75‡	6.45	4.30

NEWARK MAINTAINS SEVEN GIANT WAREHOUSES TO SERVE YOUR ELECTRONIC NEEDS QUICKLY AND EFFICIENTLY

SEMICONDUCTORS

A



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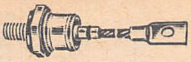

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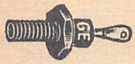

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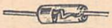
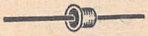


E



F

SILICON LOW CURRENT RECTIFIERS—Fig. F

Stk. No.	Type	PRV Volts	Max. Idc		Max. Full Load Drop		Max. Oper. Temp.°C	1-99	100-999
			Ma	Amb. °C	V.	At °C			
21F3030	1N440	100	300	50	1.5	25	150	.82	.55
21F3035	1N440B	100	750	50	1.5	25	165	.82	.55
21F3031	1N441	200	300	50	1.5	25	150	.85	.57
21F3036	1N441B	200	750	50	1.5	25	165	.85	.57
21F3032	1N442	300	300	50	1.5	25	150	.99	.66
21F3037	1N442B	300	750	50	1.5	25	165	.99	.66
21F3033	1N443	400	300	50	1.5	25	150	1.24	.83
21F3038	1N443B	400	750	50	1.5	25	165	1.24	.83
21F3034	1N444	500	300	50	1.5	25	150	1.24	.83
21F3039	1N444B	500	650	50	1.5	25	150	1.24	.83
21F3027	1N445	600	300	50	1.5	25	150	1.81	1.21
21F3028	1N445B	600	650	50	1.5	25	150	1.81	1.21
21F3040	1N536	50	750	50	1.1	25	165	.53	.35
21F353	1N537	100	750	50	1.1	25	165	.60	.40
21F354	1N538	200	750	50	1.1	25	165	.68	.45
21F355	1N539	300	750	50	1.1	25	165	.83	.55
21F356	1N540	400	750	50	1.1	25	165	.98	.65
21FX3358	1N547	600	750	50	1.1	25	165	1.43	.95
21F3163	1N560	800	600	30	1.1	25	150	2.69	1.79
21F3164	1N561	1000	600	30	1.1	25	150	5.36	3.57
21FX3367	1N599	50	600	25	1.5	200 ma	150	.53	.35
21FX3368	1N599A	50	600	25	1.5	200 ma	150	1.05	.70
21FX3369	1N600	100	600	25	1.5	200 ma	150	.60	.40
21FX3370	1N600A	100	600	25	1.5	200 ma	150	1.20	.80
21FX3371	1N601	150	600	25	1.5	200 ma	150	.62	.41
21FX3372	1N601A	150	600	25	1.5	200 ma	150	1.28	.85
21FX3373	1N602	200	600	25	1.5	200 ma	150	.68	.45
21FX3374	1N602A	200	600	25	1.5	200 ma	150	1.35	.90
21FX3375	1N603	300	600	25	1.5	200 ma	150	.83	.55
21FX3376	1N603A	300	600	25	1.5	200 ma	150	1.65	1.10
21FX3377	1N604	400	600	25	1.5	200 ma	150	.98	.65
21FX3378	1N604A	400	600	25	1.5	200 ma	150	1.95	1.30
21FX3379	1N605	500	600	25	1.5	200 ma	150	.98	.65
21FX3474	1N605A	500	600	25	1.5	200 ma	150	1.95	1.30
21FX3380	1N606	600	600	25	1.5	200 ma	150	1.43	.95
21FX3381	1N606A	600	600	25	1.5	200 ma	150	2.87	1.91
21F3041	1N1095	500	750	30	1.1	25	150	.98	.65
21F3054	1N1096	600	750	30	1.1	25	150	1.43	.95
21FX3390	1N1100	100	750	50	1.5	25	165	.60	.40
21FX3391	1N1101	200	750	50	1.5	25	165	.68	.45
21FX3392	1N1102	300	750	50	1.5	25	165	.83	.55
21FX3393	1N1103	400	750	50	1.5	25	165	.98	.65
21F3060	1N1487	100	750	25	1.2	25	140	.60	.40
21F3061	1N1488	200	750	25	1.2	25	140	.68	.45
21F3062	1N1489	300	750	25	1.2	25	140	.83	.55
21F3063	1N1490	400	750	25	1.2	25	140	.98	.65
21F3064	1N1491	500	750	25	1.2	25	125	.98	.65
21F3065	1N1492	600	750	25	1.2	25	120	1.43	.95
21F3068	1N1692	100	600	50	1.2	25	115	.59	.39
21F3069	1N1693	200	600	50	1.2	25	115	.63	.42
21F3070	1N1694	300	600	50	1.2	25	115	.78	.52
21F3071	1N1695	400	600	50	1.2	25	115	.96	.64
21FX3476	1N1696	500	600	50	1.2	25	115	.96	.64
21FX3477	1N1697	600	600	50	1.2	25	115	1.41	.94
20F3393	4JA10M	600	1.3*	25	.5	150	165	1.72	1.15
20F3394	4JA10N	800	1.2*	25	.5	150	165	2.47	1.98
20F3395	4JA10P	1000	1.2*	25	.5	150	165	5.92	3.95

*In amps.

SILICON LOW CURRENT FLANGELESS RECTIFIERS—Fig. B

20F3515	1N2610	100	850	25	.5	150	175	1.05	.70
20F3516	1N2611	200	850	25	.5	150	175	1.19	.79
20F3517	1N2612	300	850	25	.5	150	175	1.54	1.03
20F3518	1N2613	400	850	25	.5	150	175	1.74	1.16
20F3519	1N2614	500	850	25	.5	150	175	1.95	1.30
20F3520	1N2615	600	850	25	.5	150	175	2.22	1.55
20F3521	1N3639	200	750	25	.6	100	100	.77	.51
20F3522	1N3640	400	750	25	.6	100	100	.96	.64
20F3523	1N3641	600	750	25	.6	100	100	1.49	.99
20F3524	1N3642	800	500	25	.6	100	100	1.82	1.21

SILICON HIGH CURRENT RECTIFIERS—Fig. C

Max. Idc, 100 amps at 130°C, stud, single phase. Max. 1-cy. surge, 1600 amps. Max. operating temp., 200°C.

Stk. No.	Type	PRV Volts		Max. Fwd. Drop at 100A, ave. 1-ph. 130°C	1-99	100-999
		Repetitive	Transient			
20F3093	1N3289	200	300	0.6 volt	12.00	9.50
20F3095	1N3290	300	400	0.6 volt	15.60	12.50
20F3097	1N3291	400	525	0.6 volt	18.70	15.00
20F3099	1N3292	500	650	0.6 volt	24.00	19.20
20F3101	1N3293	600	800	0.6 volt	27.80	22.20
20F3103	1N3294	800	1050	0.6 volt	37.00	29.60
20F3105	1N3295	1000	1300	0.6 volt	46.00	36.80

SILICON MEDIUM CURRENT RECTIFIERS—Fig. D

Insulating kit supplied. Max. oper. temp.: 200°C except (§) 175°C. Single phase at 150°C. stud. (†) at 25 amps, 25°C, junction. (‡) at 50 amps, 25°C. #@ 145°C. Stud.

Stk. No.	Type	PRV Volts		Max. Idc Amps*	Max. Peak 1-cy. Surge Amps	Max. Drop Full Load V.	1-99	100-999
		Repetitive	Transient					
21FX3485	1N248§	50	......	10	200	1.5†	2.78	2.40
21FX3487	1N248A§	50	......	20	350	1.5‡	3.60	2.70
20F3525	1N248B§	55	......	20	350	1.5‡	4.05	3.25
21FX3489	1N249§	100	......	10	200	1.5†	4.58	3.05
21FX3491	1N249A§	100	......	20	350	1.5‡	4.95	3.30
20F3037	1N249B§	110	......	20	350	1.5‡	6.08	4.05
21FX3494	1N250§	200	......	10	200	1.5†	6.30	4.20
21FX3496	1N250A§	200	......	20	350	1.5‡	7.13	4.75
20F3041	1N250B§	220	......	20	350	1.5‡	8.25	5.50
20F3050	1N1195A§	300	......	20	350	.6	10.15	6.70
20F3052	1N1196A§	400	......	20	350	.6	14.25	9.50
20F3054	1N1197A§	500	......	20	350	.6	19.50	13.00
20F3056	1N1198A§	600	......	20	350	.6	27.00	18.00
21FX3499	1N1199A	50	100	12	240	.55	2.85	1.90
21FX3501	1N1200A	100	200	12	240	.55	3.30	2.20
21FX3503	1N1201A	150	300	12	240	.55	4.50	3.00
21FX3505	1N1202A	200	350	12	240	.55	5.85	3.90
21FX3507	1N1203A	300	450	12	240	.55	8.55	5.70
21FX3509	1N1204A	400	600	12	240	.55	10.35	6.80
21FX3511	1N1205A	500	700	12	240	.55	13.90	9.25
21FX3513	1N1206A	600	800	12	240	.55	17.25	11.50
21FX3515	1N1341A	50	100	6	150	.64	2.63	1.75
21FX3517	1N1342A	100	200	6	150	.64	3.00	2.00
21FX3519	1N1343A	150	300	6	150	.64	3.75	2.50
21FX3521	1N1344A	200	350	6	150	.64	4.58	3.05
21FX3523	1N1345A	300	450	6	150	.64	6.15	4.10
21FX3525	1N1346A	400	600	6	150	.64	8.63	5.75
21FX3527	1N1347A	500	700	6	150	.64	11.40	7.60
21FX3529	1N1348A	600	800	6	150	.64	13.20	8.80
20F3088	1N1612	50	100	5	150	.64	2.78	1.85
20F3089	1N1613	100	200	5	150	.64	3.15	2.10
20F3090	1N1614	200	350	5	150	.64	4.58	3.05
20F3091	1N1615	400	600	5	150	.64	7.50	5.00
20F3092	1N1616	600	800	5	150	.64	12.00	8.00
21F3055	1N2154	50	100	25	300	.6#	4.05	2.70
21F3056	1N2155	100	200	25	300	.6#	5.10	3.40
21F3057	1N2156	200	350	25	300	.6#	7.28	4.85
21F3058	1N2157	300	450	25	300	.6#	9.15	6.10
21FX3398	1N2158	400	600	25	300	.6#	11.00	7.35
21FX3399	1N2159	500	700	25	300	.6#	15.25	10.15
21FX3400	1N2160	600	800	25	300	.6#	20.10	13.40
20F3526	1N3569§	100	150	1.25	35	.5	1.49	.99
20F3527	1N3570§	200	275	1.25	35	.5	1.80	1.20
20F3528	1N3571§	300	400	1.25	35	.5	2.32	1.55
20F3529	1N3572§	400	525	1.25	35	.5	2.85	1.90
20F3530	1N3573§	500	650	1.25	35	.5	4.27	2.85
20F3531	1N3574§	600	775	1.25	35	.5	6.15	4.10
20F3401	A40F§	50	......	15	300	.7	1.56	1.04
20F3396	A40A§	100	......	15	300	.7	1.64	1.09
20F3397	A40B§	200	......	15	300	.7	2.19	1.46
20F3398	A40C§	300	......	15	300	.7	2.70	1.80
20F3399	A40D§	400	......	15	300	.7	3.30	2.20
20F3400	A40E§	500	......	15	300	.7	4.05	2.70
20F3402	A40M§	600	......	15	300	.7	4.80	3.20

STUD-MOUNTED SILICON LOW CURRENT RECTIFIERS—Fig. D

Max. operating temperature, 150°C except (*) 170°C. (†) 155°C (#) 165°C. (•) insulated stud type. (‡) Ambient. (§) at 25°C.

Stk. No.	Type	PRV V.	Max. Idc		Max. Pk. 1-cycle Surge	Max. Full Load Drop		1-99	100-999
			Cur.	Case °C		V.	At		
21F3042	1N253	95	1 amp	135	15 amp	.75	135° C	1.19	.79
21F3043	1N254	190	800 ma	135	15 amp	.70	135° C	1.25	.83
21F3044	1N255	380	800 ma	135	15 amp	.70	135° C	1.97	1.31
21F3051	1N256	570	600 ma	135	15 amp	.69	135° C	2.85	1.90
21FX3349	1N340*	100	200 ma	150	10 amp	2	400 ma	1.19	.79
21FX3357	1N349*	100	200 ma	150	10 amp	2	400 ma	1.19	.79
21FX3347	1N337*	200	200 ma	150	10 amp	2	400 ma	1.25	.83
21FX3355	1N346*	200	200 ma	150	10 amp	2	400 ma	1.25	.83
21FX3345	1N335*	300	200 ma	150	10 amp	2	400 ma	1.58	1.05
21FX3353	1N344*	300	200 ma	150	10 amp	2	400 ma	1.58	1.05
21FX3343	1N333*	400	200 ma	150	10 amp	2	400 ma	1.97	1.31
21FX3351	1N342*	400	200 ma	150	10 amp	2	400 ma	1.97	1.31
21FX3348	1N339*	100	400 ma	150	15 amp	2	800 ma	1.19	.79
21FX3356	1N348*	100	400 ma	150	15 amp	2	800 ma	1.19	.79
21FX3346	1N336*	200	400 ma	150	15 amp	2	800 ma	1.25	.83
21FX3354	1N345*	200	400 ma	150	15 amp	2	800 ma	1.25	.83
21FX3344	1N334*	300	400 ma	150	15 amp	2	800 ma	1.58	1.05
21FX3352	1N343*	300	400 ma	150	15 amp	2	800 ma	1.58	1.05
21FX3342	1N332*	400	400 ma	150	15 amp	2	800 ma	1.97	1.31
21FX3350	1N341*	400	400 ma	150	15 amp	2	800 ma	1.97	1.31
21FX3361	1N550	100	500 ma	100‡	4a, 3ms	1.5	25° C	1.29	.86
21FX3362	1N551	200	500 ma	100‡	4a, 3ms	1.5	25° C	1.38	.92
21FX3363	1N552	300	500 ma	100‡	4a, 3ms	1.5	25° C	1.77	1.18
21FX3364	1N553	400	500 ma	100‡	4a, 3ms	1.5	25° C	2.16	1.44
21FX3365	1N554	500	500 ma	100‡	4a, 3ms	1.5	25° C	2.16	1.44
21FX3366	1N555	600	500 ma	100‡	4a, 3ms	1.5	25° C	3.15	2.10
21F3165	1N562	800	400 ma	100	15 amp	1.0	150° C	5.36	3.57
21F3166	1N563	1000	400 ma	100	15 amp	1.0	150° C	10.73	7.15
21F3167	1N607	50	1 amp	100‡	2a, .1 sec	1.5	200 ma§	1.14	.76

Continued on next page.

STUD-MOUNTED SILICON LOW CURRENT RECTIFIERS (Cont.)

Stock No.	Type	PRV V.	MAX. Idc		Max. Pk. 1-cycle Surge	Max. Full Load Drop		1-99	100-999
			Cur.	Case °C		V.	At		
21FX3382	1N607A	50	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**1.25**	**.83**
21F3168	1N608	100	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**1.19**	**.79**
21FX3383	1N608A	100	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**1.29**	**.86**
21F3169	1N609	150	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**1.22**	**.81**
21FX3384	1N609A	150	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**1.34**	**.89**
21F3170	1N610	200	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**1.25**	**.83**
21FX3385	1N610A	200	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**1.47**	**.92**
21F3171	1N611	300	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**1.58**	**1.05**
21FX3386	1N611A	300	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**1.77**	**1.18**
21F3172	1N612	400	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**1.97**	**1.31**
21FX3387	1N612A	400	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**2.16**	**1.44**
21F3173	1N613	500	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**1.97**	**1.31**
21FX3388	1N613A	500	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**2.16**	**1.44**
21F3174	1N614	600	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**2.85**	**1.90**
21FX3389	1N614A	600	1 amp	100‡	2a, .1 sec.	1.5	200 ma§	**3.15**	**2.10**
21F3045	1N1115*	100	1.5 a.	85	15 amps	.65	150° C	**1.19**	**.79**
21F3046	1N1116*	200	1.5 a.	85	15 amps	.65	150° C	**1.25**	**.83**
21F3047	1N1117*	300	1.5 a.	85	15 amps	.65	150° C	**1.58**	**1.05**
21F3048	1N1118*	400	1.5 a.	85	15 amps	.65	150° C	**1.97**	**1.31**
21F3049	1N1119†	500	1.3 a.	85	15 amps	.65	150° C	**1.97**	**1.31**
21F3050	1N1120†	600	1.3 a.	85	15 amps	.65	150° C	**2.85**	**1.90**
21FX3478	1N2847 ● #	100	1.5 a.	75	15 amps	.65	150° C	**1.65**	**1.10**
21FX3479	1N2848 ● #	200	1.5 a.	75	15 amps	.65	150° C	**1.74**	**1.16**
21FX3480	1N2849 ● #	300	1.5 a.	75	15 amps	.65	150° C	**2.21**	**1.47**
21FX3481	1N2850 ● #	400	1.5 a.	75	15 amps	.65	150° C	**2.75**	**1.83**
21FX3482	1N2851 ●	500	1.5 a.	50	15 amps	.65	120° C	**2.75**	**1.83**
21FX3483	1N2852 ●	600	1.5 a.	50	15 amps	.65	120° C	**4.29**	**2.86**

SEMICONDUCTOR MANUALS

G. E. Controlled Rectifier Manual—Second edition; detailed data.
52F674. Each..1.50

G. E. Tunnel Diode Manual—First edition; theory, ratings, characteristics and applications; 90 pp.
53F056. Each..1.00

G. E. Transistor Manual—Big, sixth edition; full of information.
52F675. Each..2.00

LIGHT ACTIVATED RECTIFIERS

Fig. E for 2J235 series. Light intensity to trigger decreases with increasing anode voltage.

Stock No.	Type	PRV/ Vbo Volts	Max. Temp. Oper. °C	If@ 35° amb. Amp.	to trigger, Ft. Candles, T; 25° C Light Intensity Req.			Net Each
					Min.	Typ.	Max.	
20F3532	ZJ235U	25	75	0.25	80	125	500	**3.00**
20F3533	ZJ235F	50	75	0.25	80	125	500	**5.00**
20F3534	ZJ235A	100	75	0.25	80	125	500	**7.50**
20F3535	ZJ235B	200	75	0.25	80	125	500	**10.00**
20F3536	ZJ235C	300	75	0.25	80	125	500	**15.00**
20F3537	ZJ235D	400	75	0.25	80	125	500	**25.00**
20F3538	ZJ227U	25	100	0.4	50	150	300	*
20F3539	ZJ227F	50	100	0.4	50	150	300	*
20F3540	ZJ227A	100	100	0.4	50	150	300	*
20F3541	ZJ227G	150	100	0.4	50	150	300	*
20F3542	ZJ227B	200	100	0.4	50	150	300	*

*Write for prices.

GERMANIUM BACK DIODES
Fig. F

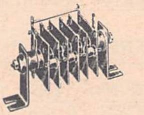
High speed switching diodes with low forward drop. Germanium types have very low forward drop. Subminiature axial package.

Stock No.	Type	Forward Voltage		Max. Rev. Peak Point Cur., Ma	Min. Rev. Voltage‡ VR1. Mv.	1-99	100-999
		If1* Ma	If2† Mv				
20F3141	4JF2-BD-1	10.0	120	1.0	440	**5.00**	**3.30**
20F3142	4JF2-BD-2	5.0	130	0.5	420	**5.00**	**3.30**
20F3143	4JF2-BD-3	2.0	170	0.2	400	**3.00**	**2.00**
20F3144	4JF2-BD-4	1.0	170	0.1	380	**5.00**	**3.30**
20F3145	4JF2-BD-5	.5	170	0.05	350	**10.00**	**6.65**
20F3146	4JF2-BD-6	.2	160	0.02	330	**10.00**	**6.65**
20F3147	4JF2-BD-7	.1	160	0.01	300	**10.00**	**6.65**

*Vf1 equal to 90 mv (±1 0mv). †At If2 equal to 3 If1. ‡With Ir equal to Ip max.

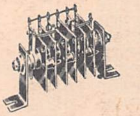
RECTIFIER STACKS

TYPE 4JA211
GERMANIUM LOW CURRENT STACKS



Small and lightweight, with excellent regulation. May be arranged in stacks of up to 12 fins for more than 160 various circuit configurations. Outputs up to 6 amps at 55° C ambient. Up to 630 PRV.

TYPE 4JA411, 4JA1011
SILICON LOW CURRENT STACKS



High temperature operation, up to 150° C ratings. Up to 18 amps at 25° C ambient, up to 3360 PRV. Offer high efficiency plus excellent regulation. Hundreds of stack combinations for a variety of circuit conditions.

SCR COMBINATION STACKS

Packaged building blocks includes silicon controlled rectifiers, compatible rectifiers, heat sinks, interconnections and all hardware. Installation requires only mounting bolts and electrical connections.

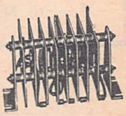
SERIES C3512 and 13, C4012 and 13, C1012 and 13, C1112 and 13, C1212 and 13

Rated up to 10.2 amps per fin free convection cooled, up to 13.8 amps per fin forced cooled at 25° C ambient. Available in two fin sizes, 3"x3" and 5"x5", and five SCR types for optimum performance in each application. Can be mounted in either vertical or horizontal plane. Available in almost limitless number of circuit configurations. Operating temperature range, —65° C to +150° C.

SERIES C5014, C6014

Provide up to 64 amps per fin free convection cooled at 30° C ambient. Specially designed aluminum extrusion for maximum heat dissipation when used with C50 or C60 SCR. Available in hundreds of circuit configurations.

TYPE 4JA3512
SILICON MEDIUM CURRENT STACKS WITH 5" FIN



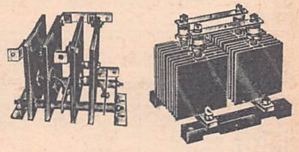
Square fin assembly for optimum use of 1N2154 series, 25 amp cell. Provides wide range of power applications with DC outputs up to 108 amps at 55° C ambient, up to 1800 PRV.

TYPES 4JA2011, 4JA2511, 4JA3511
SILICON MEDIUM CURRENT STACKS

For wide range of power applications. Type 4JA2011 provides up to 32 amps at 55° C ambient, up to 1800 PRV. Type 4JA2511 gives up to 50 amps at 55° C ambient, up to 1800 PRV. Type 4JA3511 gives up to 65 amps at 55° C ambient, up to 1800 PRV. Have 2½" fins up to 15 amps per fin.

SILICON HIGH CURRENT STACKS

TYPES 4JA7012, 4JA7013
(FIG. A)



Lightweight stacks provide up to 165 amps DC at 40° C ambient, up to 1000 PRV. Type 4JA7012 uses 5"x5"x⅛" flat copper fin heat sink. Type 4JA7013 has 7"x7"x⅜" flat aluminum fin.

TYPE 4JA7014 (Fig. B)

Specially designed for free convection cooled applications which require a maximum amount of current in a relatively small space. Fin is anodized aluminum, 4" x 4" x 5". For DC outputs of up to 240 amps at 40° C ambient and up to 1000 PRV.

TYPE 4JA9013 (Fig. B)

Provides DC outputs up to 690 amps at 40° C ambient, up to 1000 PRV. Free convection cooled with 7" x 7" x ⅜" lightweight aluminum fin. Heat dissipation equal to that of 7" x 7" x ¼" nickel-plated copper, at less than half the weight.

TYPES 4JA220, 4JA420, 4JA421, 4JA422 POTTED RECTIFIER CIRCUITS

Types 4JA220 and 4JA420 mounted in standard eight-pin tube base, others use rectangular design with solder lug connections. Available in wide variety of circuit configurations. One to 20 cells may be potted in single circuit, with ratings determined by individual cell specifications. Type 4JA220 uses Type 1N91-93 germanium cells. Others use Types 1N536-540, 1N1095 silicon cells.

Type	Current up to	Ambient Temp.	PRV. up to
4JA220	0.4 amp	55° C	1,800
4JA420	2.0 amps	50° C	3,000
4JA421	0.65 amp	25° C	10,000
4JA422	1.50 amps	25° C	2,000

Write for prices on all items not listed.

TRANSISTORS

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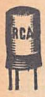
COMPLETE STOCKS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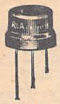
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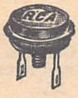
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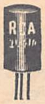
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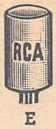
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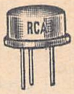
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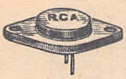
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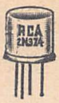
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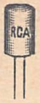
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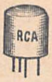
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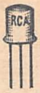
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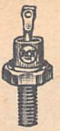
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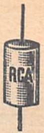
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SPECIAL MILITARY DESIGNATED SEMICONDUCTORS

When ordering MIL.-SPEC. units, two (2) copies of your Purchase Order must be sent to NEWARK.

Type	Mil Spec.	1-99	100-999
USA 1N249B	MIL-S-19500/134	3.36	2.20
USA 1N250B	MIL-S-19500/134	5.69	3.80
JAN 1N538	MIL-E-1/1084A	.63	.42
JAN 1N540	MIL-E-1/1085A	.81	.54
JAN 547	MIL-E-1/1083A	1.19	.79
USA 1N2135A	MIL-S-19500/134	9.08	6.05
JAN 2N174	MIL-T-19500/13A	7.67	5.11
JAN 2N220	MIL-T-19500/1	4.54	3.03
USA 2N274	MIL-T-19500/26	3.30	2.20
JAN 2N284	MIL-T-19500/27C	3.71	2.48
USAF 2N404	MIL-T-19500/20	.63	.42
USA 2N696	MIL-S-19500/99A	1.98	1.32
USA 2N697	MIL-S-19500/99A	2.48	1.65
USA 2N706	MIL-S-19500/120	2.23	1.49
USA 2N1183	MIL-S-19500/143	2.64	1.76
USA 2N1183A	MIL-S-19500/143	3.30	2.20
USA 2N1183B	MIL-S-19500/143	3.88	2.59
USA 2N1184	MIL-S-19500/143	4.95	3.30
USA 2N1184A	MIL-S-19500/143	5.78	3.85
USA 2N1184B	MIL-S-19500/143	7.43	4.95
USA 2N1358	MIL-S-19500/122	6.85	4.56
USA 2N1479	MIL-S-19500/270	6.27	4.18
USA 2N1480	MIL-S-19500/270	7.43	4.95
USA 2N1481	MIL-S-19500/270	8.50	5.72
USA 2N1482	MIL-S-19500/270	9.90	6.60
USA 2N1483	MIL-S-19500/180	10.73	7.15
USA 2N1484	MIL-S-19500/180	12.38	8.25
USA 2N1485	MIL-S-19500/180	14.85	9.90
USA 2N1486	MIL-S-19500/180	22.28	14.85
USN 2N1853	MIL-S-19500/171A	1.65	1.10
USN 2N1854	MIL-S-19500/172A	2.15	1.43

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GERMANIUM RF TRANSISTORS

ALLOY JUNCTION

Stk. No.	Type	Fig.	App.	Vcbo	P(mw)	hFE	fab	1-99	100-999
21F7046	2N139	A	455Kc Amp	—16	80	48	6.8	1.16	.70
21F7031	2N140	A	Conv.	—16	80	75	10	1.24	.83
21F7005	2N218	D	455Kc Amp	—16	80	48	6.8	1.16	.77
21F7006	2N219	D	Conv.	—16	80	75	10	1.24	.83
21F7048	2N409	A	455Kc Amp	—13	80	48	6.8	.61	.41
21F7020	2N410	D	455Kc Amp	—13	80	48	6.8	.61	.41
21F7051	2N411	A	Conv.	—13	80	75	10	.64	.43
21F7021	2N412	D	Conv.	—13	80	75	10	.64	.43

DRIFT FIELD

Stk. No.	Type	Fig.	App.	Vcbo	P(mw)	hFE	fab	1-99	100-999
21F7011	2N274	E	1.5-12.5MC	—40	120	60	30	1.49	.99
21F7012	2N370	P	RF Amp	—24	80	60	30	1.16	.77
21F7013	2N371	P	Osc.	—24	80	....	30	1.12	.75
21F7014	2N372	P	Mix	—24	80	60	30	1.12	.75
21F7015	2N384	E	30MC Amp	—40	120	60	100	2.06	1.38
21FX7146	2N1023	E	50MC Amp	—40	120	60	120	2.89	1.93
21FX7147	2N1066	R	50MC Amp	—40	120	60	120	2.89	1.93
20F7011	2N1177	P	RF Amp	—30	80	100	140	1.20	.80
20F7012	2N1178	P	Osc.	—30	80	40	140	1.16	.77
20F7013	2N1179	P	Mix	—30	80	80	140	1.16	.77
20F7014	2N1180	P	IF Amp	—30	80	800	100	.84	.56
21FX7111	2N1224	R	1.5-12.5 MC	—40	120	60	30	1.49	.99
21FX7112	2N1225	R	30MC Amp	—40	120	60	100	1.65	1.10
21FX7113	2N1226	R	Driver	—60	120	60	30	2.06	1.38
21FX7148	2N1395	R	1.5-12.5MC	—40	120	90	30	1.73	1.16
21FX7149	2N1396	R	30MC Amp	—40	120	90	100	2.15	1.43
21FX7150	2N1397	R	50MC Amp	—40	120	90	120	3.14	2.09
21FX7223	2N1425	P	IF Amp	—24	80	50	33	.86	.57
21FX7224	2N1426	P	Conv.	—24	80	130	33	.89	.59
20F7015	2N1524	P	455Kc Amp	—24	80	60	33	.68	.45
21FX7144	2N1525	A	455Kc Amp	—24	80	60	33	.68	.45
20F7016	2N1526	P	Conv.	—24	80	130	33	.71	.47
21FX7226	2N1527	A	Conv.	—24	80	130	33	.71	.47
21FX7230	2N1631	A	RF Amp	—24	80	80	45	.74	.50
21FX7229	2N1632	D	RF Amp	—34	80	80	45	.74	.50
21FX7228	2N1633	A	455Kc Amp	—34	80	75	40	1.24	.83
20F7017	2N1634	D	455Kc Amp	—34	80	75	40	1.24	.83
21FX7231	2N1635	A	Conv.	—34	80	75	45	1.32	.88
20F7018	2N1636	D	Conv.	—34	80	75	45	1.32	.88
20F7019	2N1637	D	RF Amp	—34	80	80	45	.88	.57
20F7020	2N1638	D	IF Amp	—34	80	75	40	.76	.51
20F7021	2N1639	D	Conv.	—34	80	75	45	.81	.54

ALLOY JUNCTION—GERMANIUM POWER TRANSISTORS

INTERMEDIATE POWER AND SWITCHING

Stk. No.	Type	Fig.	Vcbo	Ic(Amp)	P(w)	HFE Min.	HFE Max.	1-99	100-999
21FX7151	2N1183	I	—45	—3	7.5	20	60	1.82	1.21
21FX7152	2N1183A	I	—60	—3	7.5	20	60	2.31	1.54
21FX7153	2N1183B	I	—80	—3	7.5	20	60	2.89	1.93
21FX7154	2N1184	I	—45	—3	7.5	40	120	4.95	3.30
21FX7155	2N1184A	I	—60	—3	7.5	40	120	4.54	3.03
21FX7156	2N1184B	I	—80	—3	7.5	40	120	6.19	4.13

HIGH POWER—CASE TO-36

Stk. No.	Type	Fig.	Vcbo	Ic(Amp)	P(w)	HFE Min.	HFE Max.	1-99	100-999
21FX7187	2N173	C	—60	—15	150	35	70	4.21	2.80
21FX7188	2N174	C	—80	—15	150	25	50	4.50	3.00
21FX7189	2N277	C	—40	—15	150	35	70	3.38	2.25
21FX7190	2N278	C	—50	—15	150	35	70	4.87	3.25
21FX7191	2N441	C	—40	—15	150	20	40	2.72	1.82
21FX7192	2N442	C	—50	—15	150	20	40	4.42	2.95
21FX7193	2N443	C	—60	—15	150	20	40	4.42	2.95
21FX7194	2N1099	C	—80	—15	150	35	70	6.83	4.55
21FX7195	2N1100	C	—100	—15	150	25	50	9.82	6.55
21FX7196	2N1358	C	—80	—15	150	25	....	9.16	6.10
21FX7197	2N1412	C	—100	—15	150	25	50	8.48	5.65

SMALL SIGNAL AMPLIFIER

(*) NPN Type

Stk. No.	Type	Fig.	App	Vcbo	Pmw	hFE	fab-MC	1-99	100-999
21F7001	2N105	A	Amp	—30	150	44	0.7	1.65	1.10
21F7036	2N175	A	Amp	—10	20	65	0.85	1.63	1.09
21F7003	2N215	D	Amp	—30	150	44	0.7	1.73	1.16
21F7007	2N220	D	Amp	—10	20	65	0.85	1.55	1.03
21F7037	2N405	A	Driver	—20	150	35	0.65	.41	.28
21F7018	2N406	D	Driver	—20	150	35	0.65	.41	.28
21F7038	2N591	D	Driver	—32	50	70	0.7	.66	.44
21FX7101	2N1010	D	Amp	10	20	35	2	2.89	1.93

LARGE SIGNAL AMPLIFIER

(*) NPN Types (**) Drift Field.

Stk. No.	Type	Fig.	App.	Vcbo	IC-Amp	Pw	hFE	1-99	100-999
21F7039	2N109	A	Amp	—25	—0.07	0.15	75	.91	.61
21F7040	2N176	J	Pwr Amp	—40	—3	10	63	1.88	1.25
21F7004	2N217	D	Amp	—25	—0.07	0.15	75	.86	.57
21F7010	2N270	P	Amp	—25	—0.15	0.25	70	1.02	.68
21F7041	2N301	J	Pwr Amp	—40	—3	11	70	1.52	1.01
21F7042	2N301A	J	Pwr Amp	—60	—3	11	70	3.71	2.48
21F7043	2N351	J	Pwr Amp	—40	—3	10	65	2.03	1.35
21F7044	2N376	J	Pwr Amp	—40	—3	10	78	2.10	1.40
21F7045	2N407	A	Amp	—20	—0.07	0.15	65	.51	.34
21F7019	2N408	D	Amp	—20	—0.07	0.15	65	.51	.34
21FX7105	2N647*	D	Amp	25	0.1	0.1	70	1.16	.77
21FX7106	2N649*	D	Amp	20	0.1	0.1	65	.86	.57
21FX7198	2N1905**	J	Amp	—60	—10	50	90	4.13	2.75
21FX7199	2N1906**	J	Amp	—100	—10	50	125	6.60	4.40

GERMANIUM COMPENSATING DIODE—Fig. S

Stk. No.	Type	UR	IF ma	TEA °C	TSTG °C Min.	TSTG °C Max.	TL °C	1-99	100-999
20F7038	1N2326	—1	10	71	—65	+85	225	.50	.33

HIGH SPEED SWITCHING MULTIPLE GERMANIUM DIODES—Fig. R

Stk. No.	Type	Diodes	VF	BVR	IF-ma	IR-ma	TRR µ sec	1-99	100-999
21FX7215	2DG001	2	.4	—20	40	—15	0.25	1.62	1.08
21FX7216	3DG001	3	.4	—20	40	—15	0.25	2.34	1.56

TUNNEL DIODES—Fig. X

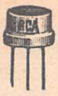
Germanium except (*) Gallium-Arsenide

Stk. No.	Type	IF ma	IR ma	P mw	Vp mv	Vv mv	1-99	100-999
21FX7178	1N3128	40	70	20	80	280	14.26	9.50
21FX7179	1N3129	55	85	30	100	300	13.79	9.20
21FX7180	1N3130	70	100	40	120	350	13.37	8.91
21FX7181	1N3138*	100	200	75	260	620	36.30	24.20

THYRISTORS—DIFFUSED—JUNCTION MESA

Stk. No.	Type	Fig.	Vcb	Pc (ma)	P (mw)	lc (sus)	lc (sus)	1-99	100-999
21FX7140	2N1213	B	—25	—100	75	— 8	—10	4.54	3.03
21FX7141	2N1214	B	—25	—100	75	—18	—20	4.54	3.03
21FX7142	2N1215	B	—25	—100	75	—26	—30	4.54	3.03
21FX7143	2N1216	B	—25	—100	75	—45	—50	2.97	1.98

SEMICONDUCTORS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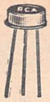
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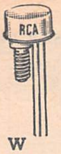
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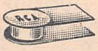
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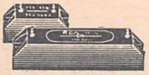
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ALLOY JUNCTION—GERMANIUM COMPUTER SWITCHING TRANSISTORS

Low Speed

Case style B except (*) P

Stk. No.	Type	VCEO	IC-ma	Pw	HFE	1-99	100-999
21F7016	2N398	—105	—100	50	60	1.30	.87
20F7042	2N398A	—105	—200	150	20	1.30	.87
20F7072	2N398B	—105	—200	250	....	1.62	1.08
21F7052	2N586*	— 45	—250	250	55	1.73	1.16

Medium Speed

(*) NPN types. (**) Bidirectional.

Stk. No.	Type	Fig.	VCEO	IC-ma	Pw	HFE	Fab-mc	1-99	100-999
21F7009	2N269	D	—25	—100	120	50	13	1.98	1.32
20F7051	2N388	B	25	200	150	30	5	1.50	1.00
20F7052	2N388A	B	40	200	150	30	5	2.57	1.72
21F7017	2N404	B	—25	—100	150	50	13	.63	.42
21FX7211	2N404A	B	—40	—150	150	30	4	.84	.56
21FX7350	2N414	B	—30	—400	150	80	8	.83	.55
21F7056	2N578	T	—20	—400	120	15	5	.99	.66
21F7057	2N579	T	—20	—400	120	30	8	1.57	1.05
21F7060	2N580	T	—20	—400	120	45	15	2.06	1.38
21F7058	2N581	B	—18	—100	150	30	8	.63	.42
21F7061	2N582	B	—25	—100	150	60	18	.99	.66
21F7059	2N583	D	—18	—100	120	30	8	.83	.55
21F7062	2N584	D	—25	—100	120	60	18	3.12	2.15
21F7030	2N585	T	25	200	120	40	5	.99	.66
21FX7116	2N1090	T	25	400	120	50	7	1.24	.83
21FX7117	2N1091	T	25	400	120	70	13	1.57	1.05
20F7006	2N1169	B	25	±400	120	40	7	1.98	1.32
20F7007	2N1170	B	40	±400	120	40	7	3.71	2.48
20F7054	2N1302	B	25	300	150	20	3	.58	.39
20F7055	2N1303	B	—30	—300	150	20	3	.58	.39
20F7056	2N1304	B	25	300	150	40	5	.76	.51
20F7057	2N1305	B	—30	—300	150	40	5	.76	.51
20F7058	2N1306	B	25	300	150	60	10	1.11	.74
20F7059	2N1307	B	—30	—300	150	60	10	1.11	.74
20F7060	2N1308	B	25	300	150	80	15	1.57	1.04
21FX7222	2N1309	B	—30	—300	150	80	15	1.57	1.04
20F7008	2N1319	B	—20	±400	120	30	6	1.65	1.10
20F7061	2N1605	B	25	100	150	30	4	1.24	.83
20F7062	2N1605A	B	40	100	200	30	4	1.50	1.00

High Speed

Stk. No.	Type	Fig.	Str.	VCBO	Ic	P	hFE	fab	1-99	100-999
21FX7118	2N643	T	DF	—30	—100	120	45	20	1.40	.94
21FX7119	2N644	T	DF	—30	—100	120	45	40	1.65	1.10
21FX7120	2N645	T	DF	—30	—100	120	45	60	2.64	1.76
20F7000	2N705	P	DBM	—15	— 50	150	25	......	1.98	1.32
20F7001	2N710	P	DBM	—15	— 50	150	25	......	1.73	1.16
20F7002	2N711	P	DBM	—12	—100	150	20	......	1.16	.77
20F7003	2N794	P	DJM	—13	—100	150	50	25	1.49	.99
20F7004	2N795	P	DJM	—13	—100	150	75	35	1.98	1.32
20F7005	2N796	P	DJM	—13	—100	150	85	50	2.89	1.93
20F7041	2N828	P	DJEM	—15	—200	150	25	300	3.30	2.20
21FX7220	2N934	P	DJEM	—13	—200	150	60	35	6.60	4.40
20F7039	*2N955	P	DDJM	—12	—100	150	60	......	4.79	3.19
20F7074	*2N955A	P	DDJM	—12	—150	150	60	......	5.36	3.58
21F7032	2N1300	B	DJM	—13	—100	150	50	25	1.16	.77
21F7033	2N1301	B	DJM	—13	—100	150	75	35	1.65	1.00
20F7009	2N1384	L	DF	—30	—500	240	50	20	2.06	1.38
21FX7225	2N1450	T	DF	—30	—100	120	20	......	2.06	1.38
20F7010	2N1683	B	DJM	—13	—100	150	85	50	2.06	1.38
20F7075	2N1853	B	DJM	—18	—100	150	400	......	1.49	.99
20F7076	2N1854	B	DJM	—18	—100	150	400	......	1.98	1.32

SILICON PLANAR SWITCHING TRANSISTORS

Stk. No.	Type	Fig.	Str.	VCBO	Ic	Pmw	hFE	GBW	1-99	100-999
21FX7217	2N696	B	DDP	60	500	2000	40	80	1.57	1.05
21FX7218	2N697	B	DDP	60	500	2000	75	100	2.06	1.38
21FX7185	2N706	P	DDP	25	50	1000	20	400	1.57	1.05
21FX7186	2N706A	P	DDP	25	50	1000	20	400	1.82	1.21
21FX7219	2N708	P	DDP	40	....	1200	30	......	2.89	1.93
20F7077	2N709	P	TDP	15	....	500	30	600	11.39	8.62
20F7068	2N834	P	DDPE	40	200	1000	25	350	6.19	4.13
20F7069	2N914	P	DDPE	40	....	1200	30	......	5.78	3.85
21FX7227	2N1613	B	TDP	75	1000	3000	20	60	7.01	4.68
21FX7232	2N1708	U	DDPE	25	200	1000	20	......	4.79	3.19
20F7040	2N2102	B	TDP	120	1000	5000	35	......	8.25	5.50
20F7063	2N2205	P	DDPE	25	200	1000	20	......	4.95	3.30
21FX7235	2N2206	U	DDPE	25	....	1000	40	......	5.78	3.85
20F7050	2N2270	B	TDP	60	1000	5000	35	......	3.71	2.48
20F7078	2N2475	P	TDP	15	....	500	20	600	8.17	5.45

SILICON POWER TRANSISTORS

Medium Power

Stk. No.	Type	Fig.	* Str.	VCBO	P (w)	hFE Min.	hFE Max.	Rs (ohms)	1-99	100-999
20F7053	2N699	B	TDP	120	2	40	120	....	4.95	3.30
21FX7221	2N1092	B	DJM	60	2	15	75	10	10.75	7.15
21FX7125	2N1479	B	DJ	60	5	20	60	7	4.62	3.08
21FX7157	2N1480	B	DJ	100	5	20	60	7	5.78	3.85
21FX7158	2N1481	B	DJ	60	5	35	100	7	6.93	4.62
21FX7213	2N1482	B	DJ	100	5	35	100	7	8.25	5.50
21FX7227	2N1613	B	TDP	75	3	35	......	....	7.01	4.68
21FX7207	2N1700	B	DJ	60	5	20	80	10	4.13	2.75
20F7073	2N1711	B	TDP	75	3	20	......	....	7.01	4.68
20F7040	2N2102	B	TDP	120	5	35	......	....	8.25	5.50
20F7050	2N2270	B	TDP	60	5	35	......	....	3.71	2.48

DIFFUSED JUNCTION SILICON POWER TRANSISTORS

Intermediate Power

Stk. No.	Type	Fig.	VCBO	P (w)	hFE Min.	hFE Max.	Rs (Ohms)	1-99	100-999
21FX7121	2N1067	I	60	5	15	75	10	20.95	13.95
21FX7159	2N1483	I	60	25	20	60	2.67	8.25	5.50
21FX7160	2N1484	I	100	25	20	60	2.67	9.90	6.60
21FX7161	2N1485	I	60	25	35	100	1.0	12.38	8.25
21FX7145	2N1486	I	100	25	35	100	1.0	19.80	13.20
21FX7208	2N1701	I	60	25	20	80	5	7.01	4.68
21FX7200	2N1768	W	60	40	35	100	1.0	12.38	8.25
21FX7201	2N1769	W	100	40	35	100	1.0	19.80	13.20
20F7071	2N2339	W	60	40	20	80	5	7.01	4.68

High Power

Stk. No.	Type	Fig.	VCBO	P (w)	hFE Min.	hFE Max.	Rs (Ohms)	1-99	100-999
21FX7123	2N1069	J	60	50	10	50	2	49.90	33.30
21FX7162	2N1487	J	60	75	15	45	2	12.38	8.25
21FX7163	2N1488	J	100	75	15	45	2	14.03	9.35
21FX7214	2N1489	J	60	75	25	75	0.67	17.33	11.55
21FX7139	2N1490	J	100	75	25	75	0.67	33.00	22.00
21FX7164	2N1511	C	60	75	15	45	2	12.38	8.25
21FX7165	2N1512	C	100	75	15	45	2	14.03	9.35
21FX7166	2N1513	C	60	75	25	75	0.67	17.33	11.55
21FX7167	2N1514	C	100	75	25	75	0.67	36.30	24.20
21FX7209	2N1702	J	60	75	15	60	4	10.73	7.15
21FX7210	2N1703	C	60	75	15	60	4	11.14	7.43
20F7022	2N2015	C	100	150	15	50	0.25	37.95	25.30
20F7023	2N2016	C	130	150	15	50	0.25	46.20	30.80
20F7070	2N2338	C	60	150	15	60	.5	24.75	16.50

COMPUTER SWITCHING TRANSISTORS

For low-speed switching applications

Stk. No.	Type	Fig.	BVcbo	Ic	Pt	fab	1-99	100-999
21F7016	2N398	E	—105	—100	50	......	1.30	.87
21F7052	2N586	F	—45	—250	250	......	1.73	1.16

For medium-speed switching applications

Stk. No.	Type	Fig.	BVcbo	Ic	Pt	fab	1-99	100-999
21F7017	2N404	E	—25	—100	150	13	.63	.42
21FX7211	2N404-A	E	—40	—150	150	4	.84	.56
21F7030	2N585	E	25	200	120	5	.99	.66
21FX7116	2N1090	E	25	400	120	7	1.24	.83
21FX7117	2N1091	E	25	400	120	13	1.57	1.05
20F7006	2N1169	E	25	±400	120	7	1.98	1.32
20F7007	2N1170	E	40	±400	120	7	3.71	2.48
21FX7222	2N1309	E	—30	—300	150	15 min.	1.57	1.04
20F7008	2N1319	E	—20	±400	120	6	1.65	1.10

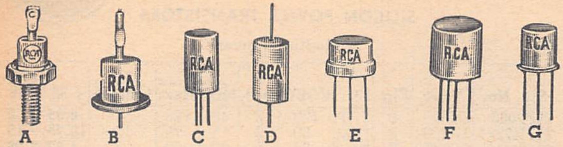
For high-speed switching applications

Stk. No.	Type	Fig.	BVcbo	Ic	Pt	fab	1-99	100-999
20F7041	2N828	G	—15	—200	150	300	3.30	2.20
21FX7220	2N934	G	—13	—200	150	35	6.60	4.40
21FX7225	2N1450	E	—30	—500	120	......	2.06	1.38

* STRUCTURE CHART

DJ..........Diffused Junction
DF.........Drift Field
DBM.....Diffused Base Mesa
DJM......Diffused Junction Mesa
TDP......Triple Diffused Planar
DDP......Double Diffused Planar
DDPE...Double Diffused Planar Epitaxial
DDJM...Double Diffused Junction Mesa
DJEM...Diffused Junction Epitaxial Mesa

SEMICONDUCTORS



DIFFUSED JUNCTION SILICON RECTIFIERS

TC: Case Temp. TA: Ambient Temp.

Stk. No.	Type	Fig.	Div.	Verms.	If(A)	T(°C)	VDF	1-99	100-999
20F7031	1N248C	B	55	39	20	150TC	0.6	1.82	1.21
20F7032	1N249C	B	110	77	20	150TC	0.6	2.31	1.54
20F7033	1N250C	B	220	154	20	150TC	0.6	3.30	2.20
21FX7126	1N440B	B	100	70	0.75	50TA	1.5	.73	.48
21FX7127	1N441B	B	200	140	0.75	50TA	1.5	.76	.51
21FX7128	1N442B	B	300	210	0.75	50TA	1.5	.87	.58
21FX7129	1N443B	B	400	280	0.75	50TA	1.5	1.09	.73
21FX7130	1N444B	B	500	350	0.75	35TA	1.5	1.24	.83
21FX7131	1N445B	B	600	420	0.75	35TA	1.5	1.60	1.07
21FX7132	1N536	B	50	35	0.75	50TA	1.1	.46	.31
21FX7133	1N537	B	100	70	0.75	50TA	1.1	.53	.35
21FX7134	1N538	B	200	140	0.75	50TA	1.1	.63	.42
21FX7135	1N539	B	300	210	0.75	50TA	1.1	.66	.44
21FX7136	1N540	B	400	280	0.75	50TA	1.1	.81	.54
21FX7137	1N547	B	600	420	0.75	50TA	1.2	1.19	.79
21FX7138	1N1095	B	500	350	0.75	50TA	1.2	1.24	.83
21FX7239	1N1183A	A	50	35	40	150TC	0.65	2.56	1.71
21FX7368	1N1184A	A	100	70	40	150TC	0.65	3.22	2.15
21FX7369	1N1186A	A	200	140	40	150TC	0.65	4.70	3.14
21FX7241	1N1187	A	300	212	35	140TC	1.7	7.59	5.06
21FX7242	1N1188	A	400	284	35	140TC	1.7	9.90	6.60
21FX7243	1N1189	A	500	355	35	140TC	1.7	12.21	8.14
21FX7244	1N1190	A	600	424	35	140TC	1.7	14.60	9.74
20F7034	1N1195A	A	300	212	20	150TC	0.6	5.86	3.90
20F7035	1N1196A	A	400	284	20	150TC	0.6	8.25	5.50
20F7036	1N1197A	A	500	355	20	150TC	0.6	10.73	7.15
20F7037	1N1198A	A	600	424	20	150TC	0.6	12.62	8.42
20F7024	1N1199A	A	50	35	12	150TC	0.55	1.24	.83
20F7025	1N1200A	A	100	70	12	150TC	0.55	1.40	.94
20F7026	1N1202A	A	200	140	12	150TC	0.55	2.72	1.82
20F7027	1N1203A	A	300	212	12	150TC	0.55	4.13	2.75
20F7028	1N1204A	A	400	284	12	150TC	0.55	5.12	3.41
20F7029	1N1205A	A	500	355	12	150TC	0.55	6.60	4.40
20F7030	1N1206A	A	600	424	12	150TC	0.55	8.25	5.50
20F7043	1N1612	A	50	35	5	135TC	1.5	1.07	.72
20F7044	1N1613	A	100	70	5	135TC	1.5	1.24	.83
20F7045	1N1614	A	200	140	5	135TC	1.5	1.90	1.27
20F7046	1N1615	A	400	280	5	135TC	1.5	4.13	2.75
20F7047	1N1616	A	600	420	5	135TC	1.5	6.02	4.02
21F7028	1N1763	B	400	140	0.5	75TA	3	.76	.51
21F7029	1N1764	B	500	175	0.5	75TA	3	.84	.56
21FX7171	1N2858	B	50	35	0.75	75TA	1.2	.45	.30
21FX7172	1N2859	B	100	70	0.75	75TA	1.2	.51	.34
21FX7173	1N2860	B	200	140	0.75	75TA	1.2	.61	.41
21FX7174	1N2861	B	300	210	0.75	75TA	1.2	.64	.43
21FX7175	1N2862	B	400	280	0.75	75TA	1.2	.79	.53
21FX7176	1N2863	B	500	350	0.75	75TA	1.2	.86	.57
21FX7177	1N2864	B	600	420	0.75	75TA	1.2	1.16	.77
21FX7203	1N3193	C	200	140	0.75	75TA	1.2	.59	.40
21FX7204	1N3194	C	400	280	0.75	75TA	1.2	.74	.50
21FX7205	1N3195	C	600	420	0.75	75TA	1.2	1.07	.72
21FX7206	1N3196	C	800	560	0.75	75TA	1.2	1.49	.99
21FX7245	1N3253	C	Same as 1N3193 but w/ins. case					.63	.42
21FX7246	1N3254	C	Same as 1N3194 but w/ins. case					.78	.52
21FX7247	1N3255	C	Same as 1N3195 but w/ins. case					1.11	.74
21FX7248	1N3256	C	Same as 1N3196 but w/ ins. case					1.52	1.01
21FX7370	1N3563	C	1000	700	0.75	75TA	1.2	2.15	1.43
21FX7371	1N3754	D	100	35	0.125	65TA	1	.36	.24
21FX7372	1N3755	D	200	70	0.125	65TA	1	.41	.28
21FX7373	1N3756	D	400	140	0.125	65TA	1	.46	.31

HIGH VOLTAGE SILICON RECTIFIERS

Stk. No.	Type	Fig.	PIV	VDF Max.	IF Amp	T °C	T Max	IR Max	1-99	100-199
21FX7351	CR101	Y	1200	1.2	0.825	60TA	125TA	0.3	9.00	8.25
21FX7352	CR102	Y	2000	2.4	0.825	60TA	125TA	0.3	10.80	9.90
21FX7353	CR103	Y	3000	3	0.715	60TA	125TA	0.3	12.60	11.55
21FX7354	CR104	Y	4000	4.2	0.605	60TA	125TA	0.3	15.60	14.30
21FX7355	CR105	Y	5000	4.8	0.605	60TA	125TA	0.3	19.20	17.60
21FX7356	CR106	Y	6000	6	0.55	60TA	125TA	0.3	22.20	20.35
21FX7357	CR107	Y	7000	7.2	0.55	60TA	125TA	0.3	25.80	23.65
21FX7358	CR108	Y	8000	7.8	0.55	60TA	125TA	0.3	29.40	26.95
21FX7359	CR109	Y	9000	9	0.55	60TA	125TA	0.3	33.00	30.25
21FX7360	CR110	Y	10,000	9.6	0.55	60TA	125TA	0.3	37.20	34.10
21FX7361	CR201	....	1500	1.8	0.3	60TA	125TA	0.2	6.00	5.50
21FX7362	CR203	....	3000	3	0.3	60TA	125TA	0.2	9.60	8.80
21FX7363	CR204	....	4500	3.6	0.3	60TA	125TA	0.2	13.20	12.10
21FX7364	CR206	....	6000	6	0.3	60TA	125TA	0.2	18.00	16.50
21FX7365	CR208	....	8000	6	0.3	60TA	125TA	0.2	24.00	22.00
21FX7366	CR210	....	10,000	7.2	0.3	60TA	125TA	0.2	26.40	24.20
21FX7367	CR212	....	12,000	7.2	0.3	60TA	125TA	0.2	28.80	26.40

SILICON VHF TRANSISTORS

Stk. No.	Type	VCBO	Ic(ma)	P(mw)	HFE	fab	1-99	100-999
21FX7168	2N1491	30	50	500	50	250	6.60	4.40
21FX7169	2N1492	60	50	500	50	275	9.90	6.60
21FX7170	2N1493	100	50	500	50	300	14.85	9.90

CALCIUM FLUORIDE LASAR CRYSTALS

Stk. No.	Type	Output W. L.	Typ. Thres. Energy	Max. Op. Temp. (°K)	NET
21FX7343	XLC-100	6,900	10	40	450.00
21FX7344	XLC-101	25,100	15	280	450.00
		26,100	5	280	

SILICON VARACTOR DIODES

Stk. No.	Type	Min. Cutoff Freq.	NET
21FX7304	VD-500	10KMC	8.00
21FX7305	VD-500A	10KMC	8.00
21FX7306	VD-501	10KMC	15.00
21FX7307	VD-501A	10KMC	15.00
21FX7308	VD-502	10KMC	30.00
21FX7309	VD-502A	10KMC	30.00
21FX7310	VD-503	10KMC	60.00
21FX7311	VD-503A	10KMC	60.00
21FX7312	VD-510	25KMC	15.00
21FX7313	VD-510A	25KMC	15.00
21FX7314	VD-511	25KMC	30.00
21FX7315	VD-511A	25KMC	30.00
21FX7316	VD-512	25KMC	60.00
21FX7317	VD-512A	25KMC	60.00
21FX7318	VD-513	25KMC	120.00
21FX7319	VD-513A	25KMC	120.00
21FX7320	VD-520	50KMC	30.00
21FX7321	VD-520A	50KMC	30.00
21FX7322	VD-521	50KMC	45.00
21FX7323	VD-521A	50KMC	45.00
21FX7324	VD-522	50KMC	90.00
21FX7325	VD-522A	50KMC	90.00
21FX7326	VD-523	50KMC	180.00
21FX7327	VD-523A	50KMC	180.00

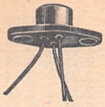
GaAs SOLAR CALLS

Stk. No.	Type	Conv. Eff.	NET
21FX7345	XSC-100	7.5- 9.0%	100.00
21FX7346	XSC-101	9.0-11.0%	200.00

GaAs VARACTOR DIODES

Stk. No.	Type	Min. Cutoff Freq.	NET
21FX7250	VD-110	50KMC	30.00
21FX7251	VD-110A	50KMC	55.00
21FX7252	VD-111	75KMC	140.00
21FX7253	VD-111A	75KMC	65.00
21FX7254	VD-112	100KMC	50.00
21FX7255	VD-112A	100KMC	80.00
21FX7256	VD-113	125KMC	65.00
21FX7257	VD-113A	125KMC	100.00
21FX7258	VD-114	150KMC	85.00
21FX7259	VD-114A	150KMC	125.00
21FX7260	VD-115	175KMC	110.00
21FX7261	VD-115A	175KMC	155.00
21FX7262	VD-116	200KMC	140.00
21FX7263	VD-116A	200KMC	190.00
21FX7264	VD-117	225KMC	180.00
21FX7265	VD-117A	225KMC	235.00
21FX7266	VD-118	250KMC	230.00
21FX7267	VD-118A	250KMC	290.00
21FX7268	VD-119	275KMC	295.00
21FX7269	VD-119A	275KMC	360.00
21FX7270	VD-120	300KMC	375.00
21FX7271	VD-120A	300KMC	450.00
21FX7272	VD-121	350KMC	500.00
21FX7273	VD-121A	350KMC	600.00
21FX7274	VD-210	50KMC	30.00
21FX7275	VD-210A	50KMC	55.00
21FX7276	VD-211	75KMC	40.00
21FX7277	VD-211A	75KMC	65.00
21FX7278	VD-212	100KMC	50.00
21FX7279	VD-212A	100KMC	80.00
21FX7280	VD-213	125KMC	65.00
21FX7281	VD-213A	125KMC	100.00
21FX7282	VD-214	150KMC	85.00
21FX7283	VD-214A	150KMC	125.00
21FX7284	VD-215	175KMC	110.00
21FX7285	VD-215A	175KMC	155.00
21FX7286	VD-216	200KMC	140.00
21FX7287	VD-216A	200KMC	190.00
21FX7288	VD-217	225KMC	180.00
21FX7289	VD-217A	225KMC	235.00
21FX7290	VD-218	250KMC	230.00
21FX7291	VD-218A	250KMC	290.00
21FX7292	VD-219	275KMC	295.00
21FX7293	VD-219A	275KMC	360.00
21FX7294	VD-220	300KMC	375.00
21FX7295	VD-220A	300KMC	450.00
21FX7296	VD-221	350KMC	500.00
21FX7297	VD-221A	350KMC	600.00
21FX7298	VD-310	20KMC	20.00
21FX7299	VD-311	40KMC	30.00
21FX7300	VD-312	60KMC	50.00
21FX7301	VD-313	80KMC	100.00
21FX7302	VD-314	100KMC	150.00
21FX7303	VD-315	120KMC	200.00

BENDIX TRANSISTORS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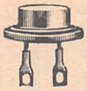
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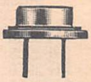
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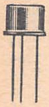
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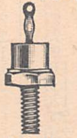
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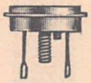

TO-36

DAP ° (DIFFUSED ALLOY POWER) TRANSISTORS

Case Style TO-41 except (*) TO-37, (†) TO-3, (‡) VCES

Stock No.	Type Number	VCEO Vdc	IC Adc	Pc W	Tj °C	Gain		1-99	100-up
						hFE	IC Adc		
21FX6198	2N1073	*40	10	90	110	20-60	5	2.85	1.90
21FX6199	2N1073A	*80	10	90	110	20-60	5	5.85	3.90
21FX6200	2N1073B	*120	10	90	110	20-60	5	10.35	6.90
21FX6218	2N1651	30	25	100	110	20-	25	9.00	6.00
21FX6219	2N1652	60	25	100	110	20-	25	18.00	12.00
21FX6220	2N1653	80	25	100	110	20-	25	29.25	19.50
21FX6224	2N2282*	30	3	5	110	30-90	0.5	6.00	4.00
21FX6225	2N2283*	60	3	5	110	30-90	0.5	7.50	5.00
21FX6226	2N2284†	100	3	5	110	30-90	0.5	10.00	7.50
21FX6250	2N2294	*40	10	90	110	50-120	5	3.38	2.25
21FX6227	2N2295	*80	10	90	110	50-120	5	7.35	4.90
21FX6251	2N2296	*120	10	90	110	50-120	5	11.85	7.90
21FX6252	2N2357	30	50	170	110	15-	50	11.00	7.50
21FX6228	2N2358	60	50	170	110	15-	50	21.00	14.00
21FX6249	2N2359	80	50	170	110	15-	50	37.50	25.00

PNP ALLOY HIGH POWER TRANSISTORS

Case Style TO-41 except (*) TO-3

21FX6238	2N511A	30	10	80	100	20-60	10	5.25	3.50
21FX6239	2N511B	40	10	80	100	20-60	10	6.35	4.30
21FX6240	2N512	20	15	80	100	20-60	15	5.25	3.50
21FX6241	2N512A	30	15	80	100	20-60	15	6.00	4.00
21FX6242	2N513A	30	20	80	100	20-60	20	6.65	4.45
21FX6243	2N513B	40	20	80	100	20-60	20	8.65	5.80
21FX6244	2N514A	30	25	80	100	20-60	25	8.30	5.60
21FX6245	2N514B	40	25	80	100	20-60	25	12.00	8.00
21FX6178	2N677*	20	15	90	100	20-60	10	3.15	2.10
21FX6179	2N677A*	30	15	90	100	20-60	10	4.40	2.90
21FX6180	2N677B*	60	15	90	100	20-60	10	7.63	4.75
21FX6181	2N677C*	70	15	90	100	20-60	10	13.13	8.75
21FX6182	2N678*	20	15	90	100	50-100	10	4.40	2.90
21FX6183	2N678A*	30	15	90	100	50-100	10	5.40	3.60
21FX6184	2N678B*	60	15	90	100	50-100	10	12.00	8.00
21FX6185	2N678C*	70	15	90	100	50-100	10	22.50	15.00
21FX6190	2N1031	20	15	90	100	20-60	10	3.30	2.20
21FX6191	2N1031A	30	15	90	100	20-60	10	4.50	3.00
21FX6192	2N1031B	60	15	90	100	20-60	10	8.60	5.75
21FX6193	2N1031C	70	15	90	100	20-60	10	13.00	8.75
21FX6194	2N1032	20	15	90	100	50-100	10	4.50	3.00
21FX6195	2N1032A	30	15	90	100	50-100	10	5.45	3.65
21FX6196	2N1032B	60	15	90	100	50-100	10	12.00	8.00
21FX6197	2N1032C	70	15	90	100	50-100	10	22.50	15.00
21FX6201	2N1120	40	15	45	95	20-50	10	8.25	5.50

PNP ALLOY POWER TRANSISTORS—TO-3

Stock No.	Type Number	VCEO Vdc	IC Adc	Pc W	Tj °C	Gain		1-99	100-up
						hFE	IC Adc		
21FX6222	2N176	*30	3	25	90	25-90	0.5	1.55	1.05
21FX6150	2N234A	25a	3	25	90	25-(b)	0.42	1.10	.75
21FX6151	2N235A	35a	3	25	90	30-40(b)	0.42	1.55	1.05
21FX6152	2N235B	35a	3	25	90	34-40(b)	0.42	1.70	1.15
21FX6153	2N236A	35a	3	25	95	30-40(b)	0.76	2.40	1.60
21FX6154	2N236B	35a	3	25	95	34-40(b)	0.76	2.60	1.75
21FX6223	2N242	45a	3	50	100	33-39(b)	0.5	1.65	1.10
21FX6155	2N255	14a	3	25	85	19-(b)	0.5	1.10	.75
21FX6253	2N255A	15a	4	20	85	25-(b)	0.42	.90	.60
21FX6156	2N256	*28	3	25	85	22-(b)	0.5	1.35	.90
21FX6254	2N256A	*25	4	20	85	25-(b)	0.42	1.10	.75
21FX6157	2N285A	35a	3	25	95	38-(b)	0.42	3.35	2.30
21FX6158	2N297A	40	5	35	95	40-100	0.5	3.00	2.00
21FX6235	2N301	*32	3	25	90	30-(b)	0.5	1.95	1.30
21FX6255	2N301A	*32	3	25	95	30-(b)	0.5	4.25	2.85
21FX6159	2N307	*35	1	25	75	20-	0.2	1.35	.90
21FX6160	2N307A	*35	1	25	75	20-	0.5	1.85	1.25
21FX6236	2N376	*30	3	65	90	34-37(b)	0.7	1.85	1.25
21FX6237	2N376A	*40	5	60	100	34-37(b)	0.7	1.85	1.25
21FX6163	2N400	35a	3	35	95	30-40(b)	1.3	2.25	1.70
21FX6165	2N418	75a	5	25	100	40-	4	5.45	3.65
21FX6166	2N419	40a	3	25	95	35-(b)	0.42	1.88	1.25
21FX6167	2N420	40a	5	25	100	40-	4	2.40	1.60
21FX6168	2N420A	65a	5	25	100	40-	4	4.20	2.80
21FX6246	2N456A	20	7	50	100	30-90	5	2.60	1.75
21FX6247	2N457A	30	7	50	100	30-90	5	3.30	2.20
21FX6248	2N458A	40	7	50	100	30-90	5	4.70	3.15
21FX6169	2N637	30	5	90	100	30-60	3	2.40	1.60
21FX6170	2N637A	55	5	90	100	30-60	3	2.75	1.85
21FX6171	2N637B	65	5	90	100	30-60	3	5.25	3.50
21FX6172	2N638	30	5	90	100	20-40	3	2.45	1.70
21FX6173	2N638A	55	5	90	100	20-40	3	3.95	2.67
21FX6174	2N638B	65	5	90	100	20-40	3	5.45	3.67
21FX6202	2N1136	30	5	90	100	50-100	3	2.55	1.70
21FX6203	2N1136A	55	5	90	100	50-100	3	3.60	2.40
21FX6204	2N1136B	65	5	90	100	50-100	3	5.10	3.40
21FX6205	2N1137	30	5	90	100	75-150	3	3.00	2.00
21FX6206	2N1137A	55	5	90	100	75-150	3	4.20	2.80
21FX6207	2N1137B	65	5	90	100	75-150	3	5.70	3.80
21FX6208	2N1138	30	5	90	100	100-200	3	3.60	2.40
21FX6209	2N1138A	55	5	90	100	100-200	3	5.85	3.90
21FX6210	2N1138B	65	5	90	100	100-200	3	8.85	5.90

(a) VCER @ 30 ohms, (b) power gain in DB, (*) VCES

PNP ALLOY MEDIUM POWER TRANSISTORS—TO-5

CASE TO-5

21FX6161	2N331	......	0.2	0.2	85	20-	0.005	1.80	1.20
21FX6186	2N1008	15*	0.3	0.4	100	40-150a	0.01	1.20	.80
21FX6187	2N1008A	35*	0.3	0.4	100	40-150a	0.01	1.65	1.10
21FX6188	2N1008B	55*	0.3	0.4	100	40-150a	0.01	3.00	2.00
21FX6211	2N1176	10*	0.3	0.3	85	20- a	0.01	.60	.40
21FX6212	2N1176A	35*	0.3	0.3	85	20- a	0.01	1.05	.70
21FX6213	2N1176B	55*	0.3	0.3	85	20- a	0.01	1.50	1.00

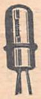
* VCER @ 10 K, a hfe @ 1 kc

MILITARY TYPE TRANSISTORS

21FX6158	2N297A	40	5	35	95	40-100	0.5	5.00	3.35
21FX6161	2N331	......	0.2	0.075	85	30-70(a)	0.001	2.25	1.50
21FX6188	2N1008B	......	0.3	0.4	100	40-120(a)	0.010	6.75	2.50
21FX6201	2N1120	40	15	45	95	20-50	10	12.75	8.50

(a) hfe @ 1 kc

SPRAGUE TRANSISTORS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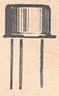
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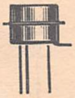
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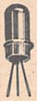
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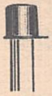
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HI-FREQ. "ECDC" CORE DRIVER TRANSISTORS—PNP

Stock No.	Fig.	Type	Coll. Volt. Max.	Coll. MA Max.	Ampl. Factor Min.	Dissip. @ 25°C MW	1-99	100-999
21F8200	E	2N2099	—25	—500	15	750	4.20	3.15
21F8201	E	2N2100	—40	—500	30	750	6.30	4.70

HI-FREQ. MICRO-ALLOY TRANSISTORS—PNP

21F8218	A	2N393	—6	—50	20	25*	4.35	3.15
USA	A	USA 2N393	—6	—50	20	25*	4.70	3.45
21F8219	A	2N1122	—12	—50	25	25*	5.45	4.00
21F8220	A	2N1122A	—15	—50	25	25*	6.75	4.95
USA	A	USA 2N1411	—5	—50	20	25	3.70	2.70
21F8221	A	2N1427	—6	—50	20	45*	4.55	3.35

VHF-UHF MICRO-ALLOY DIFFUSED BASE TRANSISTORS—PNP

21F8208	H	2N499	—30	—50	30	30*	3.95	2.90
21F8209	H	2N501	—15	—50	20	25*	6.35	4.65
21F8210	H	2N501A	—15	—50	20	60	7.05	5.15
JAN	H	JAN 2N501A	—15	—50	20	60	7.35	5.35
21F8211	H	2N504	—35	—50	....	30*	3.45	2.50

VHF-UHF MICRO-ALLOY DIFFUSED BASE TRANSISTORS (Cont.)

Stock No.	Fig.	Type	Coll. Volt. Max.	Coll. MA Max.	Ampl. Factor Min.	Dissip. @ 25°C MW	1-99	100-999
21F8212	H	2N588	—15	—50	....	30*	1.40	1.05
21F8213	I	2N768	—12	—100	25	35	5.85	4.25
21F8214	I	2N769	—12	—100	25	35	6.75	4.95
21F8215	I	2N779A	—12	—50	50	60	5.60	4.10
21F8216	I	2N846A	—15	—50	25	60	5.40	3.95
21F8217	E	2N1500	—15	—50	20	60	6.35	4.65
USA	E	USA 2N1500	—15	—50	20	60	7.35	5.35

HI-FREQ. SILICON "SPAT" TRANSISTORS—PNP

21F8202	D	2N1118	—25	—50	15	150	8.40	6.25
USA	D	USA 2N1118	—25	—50	15	150	8.75	6.50
21F8203	D	2N1118A	—25	—50	15	150	9.55	7.10
21F8204	D	2N1119	—40	—50	15	150	8.70	6.45
USA	D	USA 2N1119	—40	—50	15	150	9.00	6.70
21F8205	D	2N1429	—6	—50	12	100	6.00	4.45
21F8206	D	2N1676	—4.5	—50	4	100	4.35	3.25
21F8207	D	2N1677	—4.5	—50	4	100	3.95	2.95

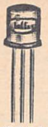
HI-FREQ. SURFACE BARRIER TRANSISTORS—PNP

21F8222	A	2N128	—10	—5	19	25	6.30	4.60
JAN	A	JAN 2N128	—10	—5	19	25	6.65	4.90
21F8223	A	2N240	—6	—15	16	30	5.60	4.10
JAN	A	JAN 2N240	—6	—15	16	30	5.90	4.35
21F8224	A	2N344	—5	—5	11	20 t	3.45	2.50
21F8225	A	2N345	—5	—5	25	20 t	4.35	3.15
21F8226	A	2N346	—5	—5	10	20 t	5.85	4.25

Note—(*) at 45°C, (t) @ 40°C.

Hoffman SILICON SEMICONDUCTORS

NEWARK STOCKS
COMPLETE LINES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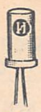
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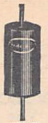
G1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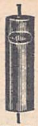
E2A

SPECIAL MILITARY DESIGNATED SEMICONDUCTORS

When ordering Special Military Designated units, two (2) copies of your purchase order must be sent to NEWARK.

Type No.		Mil. Spec.	1-24	25-99	100-up
USAF	1N429	MIL-E-1/1134A	9.00	9.00	6.75
USN	1N430	MIL-E-1/1060	27.00	27.00	22.95
USA	1N716	MIL-E-1238	3.65	3.65	2.65
USA	1N718	MIL-E-1238	3.65	3.65	2.65
USA	1N722	MIL-E-1238	3.65	3.65	2.65
USA	1N2970B	MIL-S-19500/124	11.80	11.05	8.85
USA	1N2971B	MIL-S-19500/124	11.80	11.05	8.85
USA	1N2972B	MIL-S-19500/124	11.80	11.05	8.85
USA	1N2973B	MIL-S-19500/124	11.80	11.05	8.85
USA	1N2977B	MIL-S-19500/124	11.85	11.05	8.85
USA	1N2979B	MIL-S-19600/124	11.85	11.05	8.85
USA	1N2980B	MIL-S-19500/124	11.85	11.05	8.85
USA	1N2982B	MIL-S-19500/124	11.85	11.05	8.85
USA	1N2984B	MIL-S-19500/124	11.85	11.05	8.85
USA	1N2985B	MIL-S-19500/124	11.85	11.05	8.85
USA	1N2986B	MIL-S-19500/124	11.85	11.05	8.85
USA	1N2990B	MIL-S-19500/124	11.85	11.05	8.85

Write NEWARK-CHICAGO for our Bi-Monthly Special Military Designated Semiconductor Inventory.

SILICON TUNNEL DIODES—TO-18 CASE

Electrical characteristics @ 25°C. Peak current tolerance of ±10%. Suffix "A" indicates ±2% tolerance. Minimum Ip/Iv = 3.5. Typical Vv/Vp = 6.8 Typical Ls = 4 mμH with 3⁄32" Leads; Temp.: —85 to +200°C.

Stock No.	Type	Ip (ma)	Typ. Res. Cutoff Freq.	Typ. Self-Reson. Freq.	1-99	100-999
21FX2330	1N2928	.47	350 mc	460 mc	12.50	9.40
21FX2331	1N2929	1.0	380 mc	400 mc	11.10	8.30
21FX2332	1N2930	4.7	300 mc	230 mc	11.10	8.30
21FX2333	1N2931	10.0	150 mc	140 mc	11.10	8.30
21FX2334	1N2932	22.0	115 mc	100 mc	11.10	8.30
21FX2335	1N2933	47.0	100 mc	80 mc	11.10	8.30
21FX2336	1N2934	100.0	115 mc	50 mc	19.00	14.25
21FX2337	1N2928A	.47	350 mc	460 mc	17.50	13.10
21FX2338	1N2929A	1.0	380 mc	400 mc	17.50	13.10
21FX2339	1N2930A	4.7	300 mc	230 mc	17.50	13.10
21FX2340	1N2931A	10.0	150 mc	140 mc	17.50	13.10
21FX2341	1N2932A	22.0	115 mc	100 mc	21.00	15.70
21FX2342	1N2933A	47.0	100 mc	80 mc	23.80	17.80
21FX2343	1N2934A	100.0	115 mc	50 mc	26.60	19.90

SILICON UNI-TUNNEL DIODES—TO-18 CASE

Electrical characteristics @ 25°C. Typ. temp. coeff. 0.1 mv/°C @ If min. and 1.3 mv/°C @ Ir max. Typ. Ls 4 mμH with 3⁄32" leads. Typ. Vr 0.8 @ 1 mg. Temp: —85 to +200°C.

Stock No.	Type	I_F @ .25V (ma)	Ir 0 to .5V ua	Max. Ratings			1-99	100-999
				Diss. (mw)	If (ma)	Ir (ma)		
21FX2317	HU-5	0.5	5	.9	2.5	1	7.50	5.70
21FX2318	HU-5A	0.5	5	.9	2.5	1	9.00	6.75
21FX2319	HU-10	1.0	10	1.8	5.0	2	7.50	5.70
21FX2320	HU-10A	1.0	10	1.8	5.0	2	9.00	6.75
21FX2321	HU-25	2.5	25	4.5	12.5	5	7.50	5.70
21FX2322	HU-25A	2.5	25	4.5	12.5	5	9.00	6.75
21FX2323	HU-50	5.0	50	9.0	25.0	10	7.50	5.70
21FX2324	HU-50A	5.0	50	9.0	25.0	10	9.00	6.75
21FX2325	HU-75	7.5	75	13.5	37.5	15	7.50	5.70
21FX2326	HU-75A	7.5	75	13.5	37.5	15	9.00	6.75
21FX2327	HU-100	10.0	100	18.0	50.0	20	7.50	5.70
21FX2328	HU-100A	10.0	100	18.0	50.0	20	9.00	6.75

GENERAL PURPOSE 150 MW SILICON DIODES—M1 CASE

Max. power rating: 150 mw @ 25°C. Derate 1 mw/°C over 25°C. Oper. range: —65 to +150°C, except * —55 to +100°C. **Vf @ 0.015 ma. is 0.5V ±10% ‡ @ 20V. † @ 10V. ‡‡ @ 15V, 80°C.

Stock No.	Type	Eb Max. V.	Ez Min. V.	If Min. ma	Ib Max. @ Eb uA	1-99	100-999
21F2000	1N137A	36	40	3	03†	2.75	2.06
21F2001	1N138A	18	20	5	.01‡	2.75	2.06
21F2002	1N200	6.8	7.5	50	0.5	3.25	2.44
21F2003	1N201	8.2	9	35	0.5	3.25	2.44
21F2004	1N202	10	11	30	0.5	3.25	2.44
21F2005	1N203	12	13.5	23	0.5	3.25	2.44
21F2006	1N204	15	17	17	0.5	3.25	2.44
21F2007	1N205	18	20	12	0.1	3.25	2.44

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GENERAL PURPOSE 150 MW SILICON DIODES—M1 CASE
(Continued)

Stock No.	Type	Eb Max. V.	Ez Min. V.	If Min. ma	Ib Max. @ Eb uA	1-99	100-999
21F2008	1N206	22	25	9	0.1	3.25	2.44
21F2009	1N207	27	30	7	0.1	3.25	2.44
21F2010	1N208	33	37	5.5	0.1	3.25	2.44
21F2011	1N209	39	43	4.5	0.1	3.25	2.44
21F2012	1N210	47	52	3.5	0.1	3.25	2.44
21F2013	1N211	56	62	2.7	1.0	3.25	2.44
21F2014	1N212	68	75	2.0	1.0	3.25	2.44
21F2015	1N213	82	90	1.5	1.0	3.25	2.44
21F2016	1N214	100	110	1.2	1.0	3.25	2.44
21F2017	1N215	120	135	0.9	1.0	3.25	2.44
21F2018	1N216	150	170	0.7	5.0	3.25	2.44
21F2019	1N217	180	200	6.5	5.0	3.25	2.44
21F2020	1N218	220	250	6	5.0	3.25	2.44
21F2021	1N219	270	300	3	5.0	3.25	2.44
21F2022	1N220	330	370	2.2	5.0	3.25	2.44
21F2023	1N221	390	430	2	5.0	3.25	2.44
21F2024	1N222	470	520	1.5	5.0	3.25	2.44
21F2025	1N431	68	75	**	0.1‡‡	5.00	3.75
21F2136	HB1*	6.8	7.5	17	5	.44	.44
21F2137	HB2*	18	20	5	5	.44	.44
21F2138	HB3*	36	40	2.7	10	.44	.44

150 MW* GENERAL PURPOSE ZENER DIODES—M1 CASE

* @ 25°C. Ez, 5V min, 7V max. Temp.: —55 to +100°C.

Stock No.	Type No.	Description	Max. Zz Ohms	1-99	100-999
21FX2287	RS-6	Single Anode	15	1.80	1.35
21FX2288	RT-6	Double Anode	20	1.80	1.35

250 MW* ZENER LOW VOLTAGE SILICON DIODES—M1 CASE

* @ 25°C. Temp.: —65 to +200°C. Ava. ±5% and ±1%.

Stock No.	Type	Ez @ 5mA		Ib Max.		Max. Z @ 10ma Ohms	1-99	100-999
		Min.	Max.	uA	Eb			
21F2026	1N465	2.0	3.2	75	1	60	3.75	2.81
21F2027	1N466	3.0	3.9	50	1	55	3.75	2.81
21F2028	1N467	3.7	4.5	5	1	45	3.75	2.81
21F2029	1N468	4.3	5.4	5	1.5	35	3.75	2.81
21F2030	1N469	5.2	6.4	5	1.5	20	3.75	2.81
21F2031	1N470	6.2	8.0	5	3.5	10	3.75	2.81

ZENER LOW VOLTAGE DIODES

Temp.: —55 to +175°C. Ratings at 25°C. Er tol.: ±5%.

Stk. No.	Type	Case	Er @ 20 ma (Volts)	Max. Ib (ua @ V)	Power (W)	Temp. Coeff. (%/°C)	1-99	100-999
20F2292	HS-6	G1	.74	20 @ .35	.5	.25	1.30	.85
20F2293	HS-7	E1A	1.40	20 @ .7	1	.25	3.50	2.10
20F2294	HS-8	E1A	1.55	20 @ .7	1	.20	3.50	2.10
20F2295	HS-9	E2A	1.70	20 @ .7	.4	.19	4.00	2.60
20F2296	HS-10	E2A	2.10	20 @ 1	1.4	.25	5.00	3.10
20F2297	HS-11	E2A	2.35	20 @ 1	1.4	.20	5.00	3.10
20F2298	HS-12	E3A	2.55	20 @ 1	.6	.19	5.50	3.40
20F2299	HS-13	E2A	2.80	20 @ 1.4	1.75	.25	6.00	3.70
20F2300	HS-14	E2A	3.10	20 @ 1.4	1.75	.20	6.00	3.70

150* MW ZENER SINGLE ANODE DIODES—M1 CASE

* @ 25°C. Temp.: —65 to +150°C. Available in ±5% tol. except †.

Stock No.	Type	Ez @ .2ma		Max. Rev. Current		Eb	1-99	100-999
		Min.	Max.	ua @ 25°C	ua @ 100°C			
21F2096	1N1313	7.5	10	0.5	5	6.8	3.50	2.63
21F2097	1N1314	9	12	0.5	5	8.2	3.50	2.63
21F2098	1N1315	11	14.5	0.5	5	10	3.50	2.63
21F2099	1N1316	13.5	18	0.5	5	12	3.50	2.63
21F2100	1N1317	17	21	0.5	5	15	3.50	2.63
21F2101	1N1318	20	27	0.1	10	18	3.50	2.63
21F2102	1N1319	25	32	0.1	10	22	3.50	2.63
21F2103	1N1320	30	39	0.1	10	27	3.50	2.63
21F2104	1N1321	37	45	0.1	10	33	3.50	2.63
21F2105	1N1322	43	54	0.1	10	39	3.50	2.63
21F2106	1N1323	52	64	0.1	10	47	3.50	2.63
21F2107	1N1324†	62	80	1	50	56	3.50	2.63
21F2108	1N1325†	75	100	1	50	68	3.50	2.63
21F2109	1N1326†	90	120	1	50	82	3.50	2.63
21F2110	1N1327†	100	145	1	50	100	3.50	2.63

150 MW* ZENER "DOUBLE ANODE" DIODES—M1 CASE

* @ 25°C. Temp.: —65 to +150°C. Available in ±5% tol.

21F2032	1N225	7.5	10	0.5	5	6.8	5.75	4.31
21F2033	1N226	9	12	0.5	5	8.2	5.75	4.31
21F2034	1N227	11	14.5	0.5	5	10	5.75	4.31
21F2035	1N228	13.5	18	0.5	5	12	5.75	4.31
21F2036	1N229	17	21	0.5	5	15	5.75	4.31
21F2037	1N230	20	27	0.1	10	18	6.25	4.69
21F2038	1N231	25	32	0.1	10	22	6.25	4.69
21F2039	1N232	30	39	0.1	10	27	6.25	4.69
21F2040	1N233	37	45	0.1	10	33	6.25	4.69

200 MW* ZENER "DOUBLE ANODE" DIODES—M-1 CASE

* @ 25°C. Temp.: —65 to +200°C. Available in ±5% tol.

Stk. No.	Type	Ez @ 5 ma		Ib Max		Max. Z @ 10 ma Ohms	1-99	100-999
		Min.	Max.	ua	Eb			
21F2041	1N471	3.0	3.9	50	1	65	5.20	3.90
21F2042	1N472	3.7	4.5	5	1	60	5.20	3.90
21F2043	1N473	4.3	5.4	5	1.5	50	5.20	3.90
21F2044	1N474	5.2	6.4	5	1.5	40	5.20	3.90
21F2045	1N475	6.2	8.0	5	3.5	25	5.20	3.90

SILICON ZENER DIODES Hoffman

TEMPERATURE COMPENSATED ZENER REFERENCE DIODES

Electrical characteristics at 7.5 ma except ‡ at 10 ma. *Symmetrical types, meet specifications in both polarities.

Stock No.	Type No.	Nom. Volt ±5%	V Tem. Coeff. %/°C	Case	Temp. Range °C	Max. Dyn. Z Ohms	1-99	100-999
21F2046	1N429	6.2	±.01	M1	—55-+100	20	5.70	4.35
21FX2315	1N821	6.2	±.01	G1	—55-+100	15	5.60	4.10
21FX2316	1N822*	6.2	±.01	G1	—55-+100	15	7.75	5.90
21FX2344	1N823	6.2	±.005	G1	—55-+100	15	6.85	5.50
21FX2345	1N824*	6.2	±.005	G1	—55-+100	15	10.00	8.00
21FX2350	1N935	9.0	±.01	G1	0-+75	20	4.05	3.25
21FX2351	1N935A	9.0	±.01	G1	—55-+100	20	4.40	3.50
20F2176	1N935B	9.0	±.01	G1	—55-+150	20	5.00	4.00
21FX2352	1N936	9.0	±.005	G1	0-+75	20	4.70	3.75
21FX2353	1N936A	9.0	±.005	G1	—55-+100	20	5.60	4.50
20F2177	1N936B	9.0	±.005	G1	—55-+150	20	6.55	5.25
21FX2354	1N937	9.0	±.002	G1	0-+75	20	7.50	6.00
21FX2355	1N937A	9.0	±.002	G1	—55-+100	20	8.15	6.50
20F2178	1N937B	9.0	±.002	G1	—55-+150	20	9.05	7.25
21FX2356	1N938	9.0	±.001	G1	0-+75	20	9.05	7.25
21FX2357	1N938A	9.0	±.001	G1	—55-+100	20	9.80	7.85
20F2179	1N938B	9.0	±.001	G1	—55-+150	20	13.10	10.50
20F2180	1N939	9.0	±.0005	G1	0-+75	20	21.25	17.00
20F2181	1N939A	9.0	±.0005	G1	—55-+100	20	27.50	22.00
20F2182	1N939B	9.0	±.0005	G1	—55-+150	20	30.60	24.50
21F2175	1N1735	6.2	±.011	E1A	—55-+100	20	7.60	5.28
21F2176	1N1736	12.4	±.01	E2A	—55-+100	40	10.40	8.30
21F2177	1N1736A	12.4	±.005	E2A	—55-+100	40	16.40	12.30
21F2178	1N1737	18.6	±.01	E3A	—55-+100	60	15.20	11.40
21F2179	1N1737A	18.6	±.005	E3A	—55-+100	60	23.60	17.70
21F2180	1N1738	24.8	±.01	E3A	—55-+100	80	20.00	15.00
21F2181	1N1738A	24.8	±.005	E3A	—55-+100	80	30.80	23.10
21F2182	1N1739	31.0	±.01	E4A	—55-+100	100	24.80	18.60
21F2183	1N1739A	31.0	±.005	E4A	—55-+100	100	38.00	28.50
21F2184	1N1740	37.2	±.01	E4A	—55-+100	120	29.60	22.20
21F2185	1N1740A	37.2	±.005	E4A	—55-+100	120	45.40	33.90
21F2186	1N1741	43.4	±.01	E4A	—55-+100	140	34.40	25.80
21F2187	1N1741A	43.4	±.005	E4A	—55-+100	140	52.40	39.30
21F2188	1N1742	49.6	±.01	E4A	—55-+100	160	39.20	29.40
21F2189	1N1742A	49.6	±.005	E4A	—55-+100	160	57.60	43.20
21F2047	1N430‡	8.4	±.002	M3	—55-+100	15	16.00	13.30
21F2048	1N430A‡	8.4	±.001	M3	—55-+100	15	24.00	19.95
21F2049	1N430B‡	8.4	±.001	M3	—55-+150	15	36.00	30.60
21F2050	1N1530‡	8.4	±.002	P1	—55-+100	15	16.00	13.30
21F2051	1N1530A‡	8.4	±.001	P1	—55-+100	15	24.00	19.95

250 MW * ZENER GLASS DIODES—G1 CASE

*@25°C. Temp. range: —65° to +175°C. Tolerance: ±10%. Available in ±5% tolerance on special order.

Stk. No.	Type	Ez @ 5ma Min.	Ez @ 5ma Max.	Ib Max ua	Ib Max Eb	Max. Z. @ 10ma (Ohms)	1-99	100-999
21F2065	1N702	2.0	3.2	75	....	60	2.60	2.10
21F2066	1N703	3.0	3.9	50	....	55	2.60	2.10
21F2067	1N704	3.7	4.5	5	....	45	2.60	2.10
21F2068	1N705	4.3	5.4	5	....	35	2.60	2.10
21F2069	1N706	5.2	6.4	5	....	20	2.60	2.10
21F2070	1N707	6.2	8.0	5	....	10	2.60	2.10
20F2148	1N761	4.3	5.4	....	....	55	2.60	2.10
20F2149	1N762	5.2	6.4	....	....	20	2.60	2.10
20F2150	1N763	6.2	8.0	....	....	8	2.60	2.10
20F2151	1N764	7.5	10	....	....	15	2.60	2.10
20F2152	1N765	9	12	....	....	50	2.60	2.10
20F2153	1N766	11	14.5	....	....	70	2.60	2.10
20F2154	1N767	13.5	18	....	....	120	2.60	2.10
20F2155	1N768	17	21	....	....	200	2.60	2.10
20F2156	1N769	20	27	....	....	300	2.60	2.10

250 MW * GLASS ZENER DIODES—G1 CASE

*@25°C. Supplied in ±10% Ez tolerance. ±5% tolerance available.

Stock No.	Type No.	Ez @ Iz Volts	Iz ma	Max. Zz @ Iz Ohms	1-99	100-999
21FX2200	1N708	5.6	25	3.6	2.60	2.10
21FX2201	1N709	6.2	25	4.1	2.60	2.10
21FX2202	1N710	6.8	25	4.7	2.60	2.10
21FX2203	1N711	7.5	25	5.3	2.60	2.10
21FX2204	1N712	8.2	25	6.0	2.60	2.10
21FX2205	1N713	9.1	12	7.0	2.60	2.10
21FX2206	1N714	10	12	8.0	2.60	2.10
21FX2207	1N715	11	12	9.0	2.60	2.10
21FX2208	1N716	12	12	10	2.60	2.10
21FX2209	1N717	13	12	11	2.60	2.10
21FX2210	1N718	15	12	13	2.60	2.10
21FX2211	1N719	16	12	15	2.60	2.10
21FX2212	1N720	18	12	17	2.60	2.10
21FX2213	1N721	20	4	20	2.60	2.10
21FX2214	1N722	22	4	24	2.60	2.10
21FX2215	1N723	24	4	28	2.60	2.10
21FX2216	1N724	27	4	35	2.60	2.10
21FX2217	1N725	30	4	42	3.50	2.80
21FX2218	1N726	33	4	50	3.50	2.80
21FX2219	1N727	36	4	60	3.50	2.80

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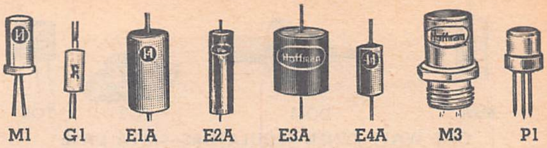


250 MW * GLASS ZENER DIODES (Continued)

Stk. No.	Type	Ez @ Iz Volts	Iz ma	Max. Zz @ Iz Ohms	1-99	100-999
21FX2220	1N728	39	4	70	3.50	2.80
21FX2221	1N729	43	4	84	3.50	2.80
21FX2222	1N730	47	4	98	3.50	2.80
21FX2223	1N731	51	4	115	3.50	2.80
21FX2224	1N732	56	4	140	3.50	2.80
21FX2225	1N733	62	2	170	3.50	2.80
21FX2227	1N735	75	2	240	3.50	2.80
21FX2228	1N736	82	2	280	3.50	2.80
21FX2229	1N737	91	1	340	3.50	2.80
21FX2230	1N738	100	1	400	3.50	2.80
21FX2231	1N739	110	1	490	3.50	2.80
21FX2232	1N740	120	1	570	3.50	2.80
21FX2233	1N741	130	1	650	3.50	2.80
21FX2234	1N742	150	1	860	3.50	2.80
21FX2235	1N743	160	1	970	3.50	2.80
21FX2236	1N744	180	1	1200	3.50	2.80
21FX2237	1N745	200	1	1400	3.50	2.80

400 MW * GLASS ZENER DIODES—G1 CASE

*@25°C. Tol.: ±10%. Temp. range: —65° to +175°C. Available in ±5% tol.

Stock No.	Type	Ez @ Iz = 20mA V.	Ib @ Eb = —1V @ 25°C (uA)	Ib @ Eb = —1V @ 150°C (uA)	Zz @ Iz = 20mA	1-99	100-999
20F2157	1N746	3.3	10.0	30	28	3.50	3.15
20F2158	1N747	3.6	10.0	30	24	3.50	3.15
20F2159	1N748	3.9	10.0	30	23	3.50	3.15
20F2160	1N749	4.3	2.0	30	22	3.50	3.15
20F2161	1N750	4.7	2.0	30	19	3.50	3.15
20F2162	1N751	5.1	1.0	20	17	3.50	3.15
20F2163	1N752	5.6	1.0	20	11	3.50	3.15
20F2164	1N753	6.2	0.1	20	7	3.50	3.15
20F2165	1N754	6.8	0.1	20	5	3.50	3.15
20F2166	1N755	7.5	0.1	20	6	3.50	3.15
20F2167	1N756	8.2	0.1	20	8	3.50	3.15
20F2168	1N757	9.1	0.1	20	10	3.50	3.15
20F2169	1N758	10.0	0.1	20	17	3.50	3.15
20F2170	1N759	12.0	0.1	20	30	3.50	3.15

400 MW * GLASS ZENER DIODES—G1 CASE

*@25°C. Temp. range: —65° to +175°C. ±5% Ez tolerance. Also available in ±10% tolerance.

Stock No.	Type	Ez @ Iz (V)	Iz (ma)	Max. Zz (Ohms) @ Iz	Max. Zz (Ohms) Zz	Max. Zz (Ohms) @ I (ma)	1-99	100-999
20F2183	1N957B	6.8	18.5	4.5	700	1.0	4.50	3.60
20F2184	1N958B	7.5	16.5	5.5	700	.5	4.50	3.60
20F2185	1N959B	8.2	15	6.5	700	.5	4.50	3.60
20F2186	1N960B	9.1	14	7.5	700	.5	4.50	3.60
20F2187	1N961B	10	12.5	8.5	700	.25	4.50	3.60
20F2188	1N962B	11	11.5	9.5	700	.25	4.50	3.60
20F2189	1N963B	12	10.5	11.5	700	.25	4.50	3.60
20F2190	1N964B	13	9.5	13.0	700	.25	4.50	3.60
20F2191	1N965B	15	8.5	16.0	700	.25	4.50	3.60
20F2192	1N966B	16	7.8	17.0	700	.25	4.50	3.60
20F2193	1N967B	18	7.0	21	750	.25	4.50	3.60
20F2194	1N968B	20	6.2	25	750	.25	4.50	3.60
20F2195	1N969B	22	5.6	29	750	.25	4.50	3.60
20F2196	1N970B	24	5.2	33	750	.25	4.50	3.60
20F2197	1N971B	27	4.6	41	750	.25	4.50	3.60
20F2198	1N972B	30	4.2	49	1000	.25	4.50	3.60
20F2199	1N973B	33	3.8	58	1000	.25	4.50	3.60
20F2200	1N974B	36	3.4	70	1000	.25	4.50	3.60
20F2201	1N975B	39	3.2	80	1000	.25	4.50	3.60
20F2202	1N976B	43	3.0	93	1500	.25	4.50	3.60
20F2203	1N977B	47	2.7	105	1500	.25	4.50	3.60
20F2204	1N978B	51	2.5	125	1500	.25	4.50	3.60
20F2205	1N979B	56	2.2	150	2000	.25	4.50	3.60
20F2206	1N930B	62	2.0	185	2000	.25	5.60	4.50
20F2207	1N981B	68	1.8	230	2000	.25	5.60	4.50
20F2208	1N982B	75	1.7	270	2000	.25	5.60	4.50
20F2209	1N983B	82	1.5	330	3000	.25	5.60	4.50
20F2210	1N984B	91	1.4	400	3000	.25	5.60	4.50
20F2211	1N985B	100	1.3	500	3000	.25	5.60	4.50
20F2212	1N986B	110	1.1	750	4000	.25	5.60	4.50
20F2213	1N987B	120	1.0	900	4500	.25	5.60	4.50
20F2214	1N988B	130	0.95	1100	5000	.25	5.60	4.50
20F2215	1N989B	150	0.85	1500	6000	.25	5.60	4.50
20F2216	1N990B	160	0.80	1700	6500	.25	5.60	4.50
20F2217	1N991B	180	0.68	2200	7100	.25	5.60	4.50
20F2225	1N992B	200	0.65	2500	8000	.25	5.60	4.50

Hoffman SILICON ZENER DIODES

M1A

DO-4

TO3

TO5

ONE WATT ZENER REGULATORS—M1A CASE

Units with suffix "B" rated at 30°C, no suffix, 25°C. Temp. range: —65 to +175°C. Suffix "B" indicates ±5% tol., no suffix, ±10%. All units available in ±10% or ±5% on special order.

Stock No.	Type	Ez@Iz	Iz ma	1-24	25-99	100-999
21FX2239	1N1766	6.2	100	3.50	3.30	2.63
21FX2240	1N1767	6.8	100	3.50	3.30	2.63
21FX2241	1N1768	7.5	100	3.50	3.30	2.63
21FX2242	1N1769	8.2	100	3.50	3.30	2.63
21FX2243	1N1770	9.1	50	3.50	3.30	2.63
21FX2244	1N1771	10	50	3.50	3.30	2.63
21FX2245	1N1772	11	50	3.50	3.30	2.63
21FX2195	1N1773	12	50	3.50	3.30	2.63
21FX2246	1N1774	13	50	3.50	3.30	2.63
21FX2247	1N1775	15	50	3.50	3.30	2.63
21FX2248	1N1776	16	50	3.50	3.30	2.63
21F2199	1N1777	18	50	3.50	3.30	2.63
21FX2249	1N1778	20	15	3.50	3.30	2.63
21FX2250	1N1779	22	15	3.50	3.30	2.63
21FX2251	1N1780	24	15	3.50	3.30	2.63
21FX2252	1N1781	27	15	3.50	3.30	2.63
21FX2253	1N1782	30	15	4.90	4.60	3.68
21FX2254	1N1783	33	15	4.90	4.60	3.68
21FX2255	1N1784	36	15	4.90	4.60	3.68
21FX2256	1N1785	39	15	4.90	4.60	3.68
21FX2257	1N1786	43	15	4.90	4.60	3.68
21FX2258	1N1787	47	15	4.90	4.60	3.68
21FX2259	1N1788	51	15	4.90	4.60	3.68
21FX2260	1N1789	56	15	4.90	4.60	3.68
21FX2261	1N1790	62	5	4.90	4.60	3.68
21FX2262	1N1791	68	5	4.90	4.60	3.68
21FX2263	1N1792	75	5	4.90	4.60	3.68
21FX2264	1N1793	82	5	4.90	4.60	3.68
21FX2265	1N1794	91	5	4.90	4.60	3.68
21FX2266	1N1795	100	5	4.90	4.60	3.68
21FX2267	1N1796	110	5	5.60	5.25	4.20
21FX2268	1N1797	120	5	5.60	5.25	4.20
21FX2269	1N1798	130	5	5.60	5.25	4.20
21FX2270	1N1799	150	5	5.60	5.25	4.20
21FX2271	1N1800	160	5	5.60	5.25	4.20
21FX2272	1N1801	180	5	5.60	5.25	4.20
21FX2273	1N1802	200	5	5.60	5.25	4.20
20F2015	1N3026B	18	14	5.05	4.75	3.79
20F2016	1N3027B	20	12.5	5.05	4.75	3.79
20F2017	1N3028B	22	11.5	5.05	4.75	3.79
20F2018	1N3029B	24	10.5	5.05	4.75	3.79
20F2019	1N3030B	27	9.5	5.05	4.75	3.79
20F2020	1N3031B	30	8.5	6.40	6.00	4.80
20F2021	1N3032B	33	7.5	6.40	6.00	4.80
20F2022	1N3033B	36	7.0	6.40	6.00	4.80
20F2023	1N3034B	39	6.5	6.40	6.00	4.80
20F2024	1N3035B	43	6.0	6.40	6.00	4.80
20F2025	1N3036B	47	5.5	6.40	6.00	4.80
20F2026	1N3037B	51	5.0	6.40	6.00	4.80
20F2027	1N3038B	56	4.5	6.40	6.00	4.80
20F2028	1N3039B	62	4.0	6.40	6.00	4.80
20F2029	1N3040B	68	3.7	6.40	6.00	4.80
20F2030	1N3041B	75	3.3	6.40	6.00	4.80
20F2031	1N3042B	82	3.0	6.40	6.00	4.80
20F2032	1N3043B	91	2.8	6.40	6.00	4.80
20F2033	1N3044B	100	2.5	6.40	6.00	4.80
20F2034	1N3045B	110	2.3	8.40	7.88	6.30
20F2035	1N3046B	120	2.0	8.40	7.88	6.30
20F2036	1N3047B	130	1.9	8.40	7.88	6.30
20F2037	1N3048B	150	1.7	8.40	7.88	6.30
20F2038	1N3049B	160	1.6	8.40	7.88	6.30
20F2039	1N3050B	180	1.4	8.40	7.88	6.30
20F2040	1N3051B	200	1.2	8.40	7.88	6.30
20F2005	1N3016B	6.8	37	5.05	4.75	3.79
20F2006	1N3017B	7.5	34	5.05	4.75	3.79
20F2007	1N3018B	8.2	31	5.05	4.75	3.79
20F2008	1N3019B	9.1	28	5.05	4.75	3.79
20F2009	1N3020B	10	25	5.05	4.75	3.79
20F2010	1N3021B	11	23	5.05	4.75	3.79
20F2011	1N3022B	12	21	5.05	4.75	3.79
20F2012	1N3023B	13	19	5.05	4.75	3.79
20F2013	1N3024B	15	17	5.05	4.75	3.79
20F2014	1N3025B	16	15.5	5.05	4.75	3.79

10 WATT* ZENER REGULATORS—DO-4 CASE

*@75°C. Other specifications at 25°C. Temp. range: —65 to +175°C. ±10% Ez tolerance. Except "B" suffix which indicates 5% tol. Top terminal positive with respect to stud, reverse polarity and other Ez tolerance, available on special order.

Stk. No	Type	Ez@Iz	Iz ma	1-24	25-99	100-999
20F2301	1N1804	6.2	1000	7.00	6.56	5.25
21FX2276	1N1805	6.8	1000	7.00	6.56	5.25
21FX2277	1N1806	7.5	1000	7.00	6.56	5.25
21FX2278	1N1807	8.2	1000	7.00	6.56	5.25

(Continued in next column)

100 Watt Zener Regulators—DO-4 Case Continued.

Stk. No.	Type	Ez@Iz	Iz ma	1-24	25-99	100-999
21FX2279	1N1808	9.1	500	7.00	6.56	5.25
21F2111	1N1351	10	500	7.00	6.56	5.25
21F2112	1N1352	11	500	7.00	6.56	5.25
21F2113	1N1353	12	500	7.00	6.56	5.25
21F2114	1N1354	13	500	7.00	6.56	5.25
21F2115	1N1355	15	500	7.00	6.56	5.25
21F2116	1N1356	16	500	7.00	6.56	5.25
21F2117	1N1357	18	150	7.00	6.56	5.25
21F2118	1N1358	20	150	7.00	6.56	5.25
21F2119	1N1359	22	150	7.00	6.56	5.25
21F2120	1N1360	24	150	7.00	6.56	5.25
21F2121	1N1361	27	150	7.00	6.56	5.25
21F2122	1N1362	30	150	7.00	6.56	5.25
21F2123	1N1363	33	150	7.00	6.56	5.25
21F2124	1N1364	36	150	7.00	6.56	5.25
21F2125	1N1365	39	150	7.00	6.56	5.25
21F2126	1N1366	43	150	7.00	6.56	5.25
21F2127	1N1367	47	150	7.00	6.56	5.25
21F2128	1N1368	51	150	7.00	6.56	5.25
21F2129	1N1369	56	150	7.00	6.56	5.25
21F2130	1N1370	62	50	7.00	6.56	5.25
21F2131	1N1371	68	50	7.00	6.56	5.25
21F2132	1N1372	75	50	7.00	6.56	5.25
21F2133	1N1373	82	50	7.00	6.56	5.25
21F2134	1N1374	91	50	7.00	6.56	5.25
21F2135	1N1375	100	50	7.00	6.56	5.25
21FX2280	1N1809	110	50	7.10	6.75	5.33
21FX2281	1N1810	120	50	7.10	6.75	5.33
21FX2282	1N1811	130	50	7.10	6.75	5.33
21FX2283	1N1812	150	50	7.10	6.75	5.33
21FX2284	1N1813	160	50	9.70	9.10	7.28
21FX2285	1N1814	180	50	9.70	9.10	7.28
21FX2286	1N1815	200	50	9.70	9.10	7.28
20F2226	1N2498	10	500	6.80	6.38	5.10
20F2227	1N2499	11	500	6.80	6.38	5.10
20F2228	1N2500	12	500	6.80	6.38	5.10
20F2229	1N1816	13	500	6.80	6.38	5.10
20F2230	1N1817	15	500	6.80	6.38	5.10
20F2231	1N1818	16	500	6.80	6.38	5.10
20F2232	1N1819	18	500	6.80	6.38	5.10
20F2233	1N1820	20	250	6.80	6.38	5.10
20F2234	1N1821	22	250	6.80	6.38	5.10
20F2235	1N1822	24	250	6.80	6.38	5.10
20F2236	1N1823	27	250	6.80	6.38	5.10
20F2237	1N1824	30	250	6.80	6.38	5.10
20F2238	1N1825	33	150	6.80	6.38	5.10
20F2239	1N1826	36	150	6.80	6.38	5.10
20F2240	1N1827	39	150	6.80	6.38	5.10
20F2241	1N1828	43	150	6.80	6.38	5.10
20F2242	1N1829	47	150	6.80	6.38	5.10
20F2243	1N1830	51	150	6.80	6.38	5.10
20F2244	1N1831	56	150	6.80	6.38	5.10
20F2245	1N1832	62	50	6.80	6.38	5.10
20F2246	1N1833	68	50	6.80	6.38	5.10
20F2247	1N1834	75	50	6.80	6.38	5.10
20F2248	1N1835	82	50	6.80	6.38	5.10
20F2249	1N1836	91	50	6.80	6.38	5.10
20F2250	1N2008	100	50	6.80	6.38	5.10
20F2251	1N2009	110	50	10.93	10.25	8.20
20F2252	1N2010	120	50	10.93	10.25	8.20
20F2253	1N2011	130	50	10.93	10.25	8.20
20F2254	1N2012	150	50	10.93	10.25	8.20
20F2049	1N2970B	6.8	370	9.30	8.75	7.00
20F2050	1N2971B	7.5	335	9.30	8.75	7.00
20F2051	1N2972B	8.2	305	9.30	8.75	7.00
20F2052	1N2973B	9.1	275	9.30	8.75	7.00
20F2053	1N2974B	10	250	9.30	8.75	7.00
20F2054	1N2975B	11	230	9.30	8.75	7.00
20F2055	1N2976B	12	210	9.30	8.75	7.00
20F2056	1N2977B	13	190	9.30	8.75	7.00
20F2057	1N2979B	15	170	9.30	8.75	7.00
20F2058	1N2980B	16	155	9.30	8.75	7.00
20F2059	1N2982B	18	140	9.30	8.75	7.00
20F2060	1N2984B	20	125	9.30	8.75	7.00
20F2061	1N2985B	22	115	9.30	8.75	7.00
20F2062	1N2986B	24	105	9.30	8.75	7.00
20F2063	1N2988B	27	95	9.30	8.75	7.00
20F2064	1N2989B	30	85	9.30	8.75	7.00
20F2065	1N2990B	33	75	9.30	8.75	7.00
20F2066	1N2991B	36	70	9.30	8.75	7.00
20F2067	1N2992B	39	65	9.30	8.75	7.00
20F2068	1N2993B	43	60	9.30	8.75	7.00
20F2069	1N2995B	47	55	9.30	8.75	7.00
20F2070	1N2997B	51	50	9.30	8.75	7.00
20F2071	1N2999B	56	45	9.30	8.75	7.00
20F2072	1N3000B	62	40	9.30	8.75	7.00
20F2073	1N3001B	68	37	9.30	8.75	7.00
20F2074	1N3002B	75	33	9.30	8.75	7.00
20F2075	1N3003B	82	30	9.30	8.75	7.00
20F2076	1N3004B	91	28	9.30	8.75	7.00
20F2077	1N3005B	100	25	9.30	8.75	7.00
20F2078	1N3007B	110	23	9.30	8.75	7.00
20F2079	1N3008B	120	20	9.30	8.75	7.00
20F2080	1N3009B	130	19	9.30	8.75	7.00
20F2081	1N3011B	150	17	9.30	8.75	7.00
20F2082	1N3012B	160	16	14.80	14.00	11.10
20F2083	1N3014B	180	14	14.80	14.00	11.10
20F2084	1N3015B	200	12	14.80	14.00	11.10

SILICON SEMICONDUCTORS Hoffman

10 WATT ZENER REGULATORS—DO-4 CASE

Terminal negative with respect to stud. Also available in 5% Ez tolerance.

Stock No.	Type	Ez@Iz (V)±10%	Iz (ma)	1-24	25-99	100-999
20F2302	1N1602	6.8	300	6.60	6.19	4.95
20F2218	1N1603	8.2	250	6.60	6.19	4.95
20F2219	1N1604	10	200	6.60	6.19	4.95
20F2220	1N1605	12	170	6.60	6.19	4.95
20F2221	1N1606	15	140	6.60	6.19	4.95
20F2222	1N1607	18	110	6.60	6.19	4.95
20F2223	1N1608	22	90	6.60	6.19	4.95
20F2224	1N1609	27	70	6.60	6.19	4.95

10 WATT ZENER DIODES—DO-4 CASE

Terminal negative with respect to stud.

Stock No.	Type	Ex@Iz (V)±10%	Iz (ma)	1-24	25-99	100-999
21FX2302	1N2043	6.2- 8.0	1000	6.60	6.19	4.95
21FX2303	1N2044	7.5-10.0	1000	6.60	6.19	4.95
21FX2304	1N2045	9.0-12.0	500	6.60	6.19	4.95
21FX2305	1N2046	11.0-14.5	500	6.60	6.19	4.95
21FX2306	1N2047	13.5-18.0	500	6.60	6.19	4.95
21FX2307	1N2048	17.0-21.0	500	6.60	6.19	4.95
21FX2308	1N2049	20.0-27.0	150	6.60	6.19	4.95

50 WATT ZENER REGULATORS—TO-3 CASE

Anode connected to base. ±5% Ez tolerance. Also available in ±10% or ±20% tolerance and in reverse polarity.

Stock No.	Type	Ez @ Iz ±5%	Iz (ma)	Max. Zz @ Iz (Ohms)	1-24	25-99	100-999
20F2267	1N2804B	6.8	1850	0.2	12.50	11.75	9.40
20F2268	1N2805B	7.5	1700	0.3	12.50	11.75	9.40
20F2269	1N2806B	8.2	1500	0.4	12.50	11.75	9.40
20F2270	1N2807B	9.1	1370	0.5	12.50	11.75	9.40
20F2085	1N2808B	10	1200	0.6	12.50	11.75	9.40
20F2086	1N2809B	11	1100	0.8	12.50	11.75	9.40
20F2087	1N2810B	12	1000	1.0	12.50	11.75	9.40
20F2088	1N2811B	13	960	1.1	12.50	11.75	9.40
20F2089	1N2812B	14	890	1.2	12.50	11.75	9.40
20F2090	1N2813B	15	830	1.4	12.50	11.75	9.40
20F2091	1N2814B	16	780	1.6	12.50	11.75	9.40
20F2092	1N2815B	17	740	1.8	12.50	11.75	9.40
20F2093	1N2816B	18	700	2.0	12.50	11.75	9.40
20F2094	1N2817B	19	660	2.2	12.50	11.75	9.40
20F2095	1N2818B	20	630	2.4	12.50	11.75	9.40
20F2096	1N2819B	22	570	2.5	12.50	11.75	9.40

(Continued in next column)

50 WATT ZENER REGULATORS (Cont.)

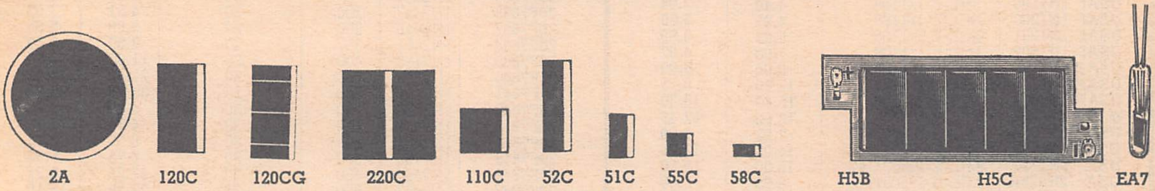
Stock No.	Type	Ez @ Iz ±5%	Iz (ma)	Max. Zz @ Iz (Ohms)	1-24	25-99	100-999
20F2097	1N2820B	24	520	2.6	12.50	11.75	9.40
20F2098	1N2821B	25	500	2.7	12.50	11.75	9.40
20F2099	1N2822B	27	460	2.8	12.50	11.75	9.40
20F2100	1N2823B	30	420	3.0	12.50	11.75	9.40
20F2101	1N2824B	33	380	3.2	12.50	11.75	9.40
20F2102	1N2825B	36	350	3.5	12.50	11.75	9.40
20F2103	1N2826B	39	320	4.0	12.50	11.75	9.40
20F2104	1N2827B	43	290	4.5	12.50	11.75	9.40
20F2105	1N2828B	45	280	4.5	12.50	11.75	9.40
20F2106	1N2829B	47	270	5	12.50	11.75	9.40
20F2107	1N2830B	50	250	5	12.50	11.75	9.40
20F2108	1N2831B	51	245	5.2	12.50	11.75	9.40
20F2109	1N2832B	56	220	6	12.50	11.75	9.40
20F2110	1N2833B	62	200	7	12.50	11.75	9.40
20F2111	1N2834B	68	180	8	12.50	11.75	9.40
20F2112	1N2835B	75	170	9	12.50	11.75	9.40
20F2113	1N2836B	82	150	11	12.50	11.75	9.40
20F2114	1N2837B	91	140	15	12.50	11.75	9.40
20F2115	1N2838B	100	120	20	12.50	11.75	9.40
20F2116	1N2839B	105	120	25	21.85	20.55	16.45
20F2117	1N2840B	110	110	30	21.85	20.55	16.45
20F2118	1N2841B	120	100	40	21.85	20.55	16.45
20F2119	1N2842B	130	95	50	21.85	20.55	16.45
20F2120	1N2843B	150	85	75	21.85	20.55	16.45
20F2121	1N2844B	160	80	80	21.85	20.55	16.45
20F2122	1N2845B	180	68	90	21.85	20.55	16.45
20F2123	1N2846B	200	65	100	21.85	20.55	16.45

PNPN SILICON CONTROLLED RECTIFIERS—TO-5 CASE

Absolute maximum ratings (@80°.): avg. FWD. current 1 amp; peak recurrent forward current, 3.3 amp; surge current, 1 cycle @ 60 cps, 15 amp; Temp. range —65 to +125°C. Specs. (@ 25°C.) min. BVf. BVr, 120% rated voltage (—65 to +125°C.); max. If (off), Ir, .25 ma; max. Vf@ If=1 amp, 2V; max. Igt, 10 ma; max. Vgt, 3V; max. Ih, 25 ma. All ratings below for case temp. —65 to +125°C, except * @ 125°C.

Stk. No.	Type	Vf (off)	Vr	Peak Gate Current	1-99	100-999
20F2287	2N1595	50	50	100 ma	7.65	5.10
20F2288	2N1596	100	100	100 ma	10.65	7.10
20F2289	2N1597	200	200	100 ma	15.00	10.00
20F2290	2N1598	300	300	100 ma	25.50	17.00
20F2291	2N1599	400	400	100 ma	36.00	24.00

SILICON PHOTOVOLTAIC CELLS



ENCAPSULATED READOUT.CELLS

Output measured at 1250 foot candles, 2800°K, 55°C into 1 K load. Dark reverse current measured at —1V, 55°C, 1 foot-candle max. Dimensions excluding 2" leads 0.5x.08". Active area 0.13x.05".

Stock No.	Type	Output mv min.	Output ua min.	Dark Reverse Current (ua max.)	1-99	100-999
21FX2309	EA7E1	300	300	5	8.25	6.20
21FX2310	EA7E2	300	300	10	7.50	5.65
21FX2311	EA7E3	250	250	10	6.40	4.80
21FX2312	EA7E5	200	200	20	5.75	4.30

SILICON SOLAR MODULES

Output measured with tungsten source with a color temp. of 2800°K at a light level corresponding to 100 mw/cm² of sunlight. Cell temperature 25°C.

Stock No.	Type No.	Case Color	Max. Dim. (inches)	Current @ 2V (ma)	1-99	100-999
21FX2313	H5B	Brown	.28x1x2.6	32	8.45	6.35
21FX2314	H5C	Black	.28x1x2.6	42	11.45	8.60

SILICON SOLAR CELLS

STANDARD SOLAR CELLS

Operating and storage temp. range —65 to +175°C. Operate in 20 microseconds or less depending on load resistance. Spectral response 0.4 to 1.15 microns, peak at 0.85 microns. Output current measured @ 400 mv, 1250 foot-candles, 2800° K, 55°C. 1 K lead.

Stock No.	Type No.	Nominal Dim. (inches)	Active Area (sq. in.)	Output Current	1-99	100-999
21F2145	2A	1.125 dia.	.79	100	7.50	6.00
21F2148	20C	0.4x0.8	.28	34	2.40	1.90
21F2149	10C	0.4x0.4	.14	17	1.90	1.50
21F2150	52C	0.2x0.8	.12	15	3.60	2.80
21F2151	51C	0.2x0.4	.06	7.5	2.50	2.00
21F2152	55C	0.2x0.2	.03	3.8	1.50	1.20
21F2153	58C	0.2x0.1	.014	1.8	1.00	.80

HIGH EFFICIENCY SOLAR CELLS

Speed of response 20 microseconds or less, depending on load resistance. Spectral response: 0.4 to 1.15 microns; peak 0.85 microns. Specifications under standard test conditions: tungsten light with 2800° color temperature, light level corresponding to 100 mw/cm2 of sunlight as correlated by means of standard solar cell. Size: 0.4x0.8"; active area, 0.28 sq. in.

Stk. No.	Type	Conv. Eff. (%)	Output Volt. (mv)	Output Current (ma)	Power (mw)	1-99	100-999
20F2303	120C-8	8	400	36.0	14.4	3.75	3.45
20F2304	120C-9	9	400	40.5	16.2	4.90	3.95
20F2305	120C-10	10	400	45.0	18.0	7.50	5.65
20F2308	120CG-11	11	485	40.8	19.8	16.70	12.50
20F2309	120CG-12	12	485	44.5	21.6	25.00	18.75
20F2310	120CG-13	13	485	48.3	23.4	15.65	11.90
20F2311	120CG-14	14	485	52.0	25.2	25.00	18.95
20F2129	220C-10	10	400	95.0	38.0	15.65	11.90

HUGHES AIRCRAFT SEMICONDUCTORS

DO-4

DO-5

DO-7

TO-18

TO-5

SPECIAL MILITARY DESIGNATED SEMICONDUCTORS

When ordering MIL.-SPEC units, two (2) copies of your Purchase Order must be sent to NEWARK.

Type	Mil. Spec.	1-99	100-999
JAN 1N126A	MIL-E-1/156C	.45	.34
JAN 1N127A	MIL-E-1/157C	.89	.68
JAN 1N128	MIL-E-1/158B	.55	.41
JAN 1N198	MIL-E-1/700	.51	.39
JAN 1N270	MIL-S-19500/200	.75	.56
JAN 1N272	MIL-S-19500/192	.70	.53
JAN 1N277	MIL-E-1/993A	.93	.70
JAN 1N281	MIL-E-961	.56	.42
JAN 1N457	MIL-S-19500/193A	1.00	.75
JAN 1N458	MIL-S-19500/193A	1.25	.94
JAN 1N459	MIL-S-19500/193A	1.50	1.13
USN 1N483B	MIL-S-19500/118	1.44	1.08
USN 1N485B	MIL-S-19500/118	2.40	1.80
USN 1N486B	MIL-S-19500/118	2.88	2.16
USA 1N643	MIL-E-1/1171	3.50	2.63
USAF 1N645	MIL-E-1/1143	2.26	1.70
USAF 1N646	MIL-E-1/1143	2.88	2.16
USAF 1N647	MIL-E-1/1143	3.59	2.69
USAF 1N648	MIL-E-1/1143	4.35	3.26
USAF 1N649	MIL-E-1/1143	5.00	3.75
USA 1N658	MIL-E-1/1160	3.75	2.82
USA 1N662	MIL-E-1/1139	1.20	.90
USA 1N663	MIL-E-1/1140	1.60	1.20
USN 1N746A	MIL-S-19500/127	3.60	2.70
USN 1N747A	MIL-S-19500/127		
USN 1N748A	MIL-S-19500/127		
USN 1N749A	MIL-S-19500/127		
JAN 1N750A	MIL-S-19500/127		
USN 1N751A	MIL-S-19500/127		
USN 1N752A	MIL-S-19500/127		
USN 1N753A	MIL-S-19500/127		
USN 1N754A	MIL-S-19500/127		
USN 1N755A	MIL-S-19500/127		
USN 1N757A	MIL-S-19500/127		
USN 1N756A	MIL-S-19500/127		
USN 1N758A	MIL-S-19500/127		
USN 1N759A	MIL-S-19500/127		
USN 1N933	MIL-S-19500/119	1.04	.78
USAF 1N1199	MIL-E-1/1108	4.40	2.94
USAF 1N1200	MIL-E-1/1108	4.95	3.30
USAF 1N1201	MIL-E-1/1108	5.95	3.98
USAF 1N1202	MIL-E-1/1108	7.00	4.67
USAF 1N1203	MIL-E-1/1108	9.00	6.00
USAF 1N1204	MIL-E-1/1108	12.20	8.15
USAF 1N1205	MIL-E-1/1108	15.40	10.30
USAF 1N1206	MIL-E-1/1108	18.60	12.45
USA 1N1731	MIL-S-19500/142	7.93	6.99
USA 1N1733	MIL-S-19500/142	14.00	12.24
USA 1N1734	MIL-S-19500/142	16.00	13.50
USA 2N328A	MIL-S-19500/106	6.65	5.00
USA 2N329A	MIL-S-19500/106	13.35	10.00
USA 2N1197	MIL-S-19500/165	11.35	8.50
USA 2N1234	MIL-S-19500/179	25.30	19.00

Write NEWARK for our bi-monthly Special Military Designated Semiconductor Inventory.

CARTRIDGE RECTIFIERS

Rated at 25°C. Continuous rating same as PIV. Operating temperature range: —55 to +150°C ambient. Maximum DC reverse current at rated PIV: 10 ua.

Stk. No.	Type	PIV	Rect. DC Out. ma	Max. DC fwd. V. Drop @ 100 ma	1-49	50-99	100-499
21FX7901	1N596	600	150	3	5.15	4.48	3.85
21FX7902	1N597	800	150	3	5.60	4.87	4.20
21FX7903	1N598	1000	150	3	6.83	5.87	5.12
21FX7896	1N2382	4000	150	18	22.05	19.18	16.52
21FX7898	1N2383	6000	100	27	30.31	26.36	22.72
21FX7899	1N2384	8000	70	27	37.35	32.48	28.00
21FX7900	1N2385	10000	70	39	46.55	40.50	34.90
21FX7892	1N1730	1000	200	5	6.83	5.95	....
21FX7893	1N1731	1500	200	5	7.98	6.93	....
21FX7894	1N1732	2000	200	9	10.22	8.99	....
21FX7895	1N1733	3000	150	12	14.98	13.02	....
21FX7897	1N1734	5000	100	18	25.20	21.91	....

SILICON RECTIFIERS—CASE DO-4

Rated at 150°C. unless otherwise stated.

Stk. No.	Type	PIV	Max. DC amps	1-99	100-999
20F7508	1N1199	50	12	3.00	1.90
20F7509	1N1200	100	12	3.60	2.20
20F7510	1N1201	150	12	4.35	3.00
20F7511	1N1202	200	12	5.15	3.90
20F7512	1N1203	300	12	7.30	5.70
20F7513	1N1204	400	12	10.35	6.80
20F7514	1N1205	500	12	14.00	9.70
20F7515	1N1206	600	12	17.49	10.73
20F7500	1N1341	50	6	2.64	1.72
20F7501	1N1342	100	6	2.95	1.97
20F7502	1N1343	150	6	3.90	2.60
20F7503	1N1344	200	6	4.50	3.00
20F7504	1N1345	300	6	6.15	4.15
20F7505	1N1346	400	6	8.25	5.50
20F7506	1N1347	500	6	10.20	6.82
20F7507	1N1348	600	6	12.30	8.22
20F7800	1N1581	50	3	2.44	1.83
20F7801	1N1582	100	3	2.50	2.00
20F7802	1N1583	200	3	4.44	3.33
20F7803	1N1584	300	3	6.47	4.85
20F7804	1N1585	400	3	8.65	6.48
20F7805	1N1586	500	3	10.84	8.13
20F7806	1N1587	600	3	13.20	9.90
20F7629	1N1612	50	5 @ 25°C	2.45	1.85
20F7630	1N1613	100	5 @ 25°C	3.50	2.65
20F7631	1N1614	200	5 @ 25°C	5.10	3.80
20F7632	1N1615	400	5 @ 25°C	8.25	5.40
20F7633	1N1616	600	5 @ 25°C	12.20	8.30
20F7807	1N2246	50	3	3.00	2.02
20F7808	1N2248	100	3	3.35	2.24
20F7809	1N2250	200	3	5.20	3.48
20F7810	1N2252	300	3	7.00	4.68
20F7811	1N2254	400	3	10.00	6.70
20F7812	1N2256	500	3	14.10	9.45
20F7813	1N2258	600	3	17.00	11.38
20F7814	1N2260	800	3	22.90	15.35
20F7815	1N2262	1000	3	28.90	19.35
20F7816	1N2491	50	6	2.99	2.00
20F7817	1N2492	100	6	3.61	2.42
20F7818	1N2493	200	6	5.55	3.72
20F7819	1N2494	300	6	7.48	5.00
20F7820	1N2495	400	6	9.73	6.52
20F7821	1N2496	500	6	12.40	8.32
20F7822	1N2497	600	6	14.95	10.00

A and B versions also available on special order.

SILICON RECTIFIERS—CASE DO-5

Rated at 150°C. unless otherwise stated.

20F7835	1N2446	50	20	3.80	2.55
20F7836	1N2447	100	20	4.51	3.02
20F7837	1N2449	200	20	5.89	3.95
20F7838	1N2451	300	20	8.30	5.56
20F7839	1N2453	400	20	11.63	7.80
20F7840	1N2455	600	20	21.40	14.32
20F7841	1N2457	800	20	33.75	22.60
20F7842	1N2458	50	30	4.00	2.68
20F7843	1N2459	100	30	4.75	3.18
20F7844	1N2461	200	30	6.20	4.15
20F7845	1N2463	300	30	8.75	5.86
20F7846	1N2465	400	30	12.25	8.21
20F7847	1N2467	600	30	22.50	15.10
20F7848	1N2469	800	30	35.50	23.80
20F7849	1N2154	50	25 @ 145°C	3.80	2.54
20F7850	1N2155	100	25 @ 145°C	4.52	3.02
20F7851	1N2156	200	25 @ 145°C	5.88	3.94
20F7852	1N2157	300	25 @ 145°C	8.32	5.57
20F7853	1N2158	400	25 @ 145°C	11.65	7.80
20F7854	1N2159	500	25 @ 145°C	16.25	10.90
20F7855	1N2160	600	25 @ 145°C	21.40	14.35

SILICON RECTIFIERS—CASE DO-4

Rated at 150°C. unless otherwise stated. With insulated base.

20F7566	1N2147	50	6	4.20	2.68
20F7567	1N2148	100	6	4.75	2.99
20F7568	1N2149	200	6	5.90	3.71
20F7569	1N2150	300	6	7.30	4.60
20F7570	1N2151	400	6	9.10	5.73
20F7571	1N2152	500	6	11.50	7.43
20F7572	1N2153	600	6	14.50	9.14
20F7856	1N2247	50	3	3.50	2.52
20F7857	1N2249	100	3	3.85	2.74
20F7858	1N2251	200	3	5.70	3.98
20F7859	1N2253	300	3	7.50	5.18
20F7860	1N2255	400	3	10.50	7.20
20F7861	1N2257	500	3	14.60	9.95

Continued on next page

Semiconductor guide is current as of Aug. 15, 1962. Prices for quantities shown here are competitive with the manufacturer OEM prices. Orders will be billed to you at those prices in effect at the time of shipment.

HUGHES AIRCRAFT SEMICONDUCTORS

SILICON RECT. (Cont'd)

Stk. No.	Type	PIV	Max. DC amps	1-99	100-999
20F7664	1N2259	600	3	17.50	11.88
20F7665	1N2261	800	3	23.40	15.85
20F7666	1N2263	1000	3	29.40	19.85
20F7667	1N2557	700	6	17.50	11.03
20F7668	1N2558	800	6	20.50	12.92
20F7669	1N2559	900	6	23.50	14.78
20F7670	1N2560	1000	6	26.50	16.70
20F7671	1N2561	700	6	21.25	13.39
20F7672	1N2562	800	6	24.25	15.28
20F7673	1N2563	900	6	27.25	17.17
20F7674	1N2564	1000	6	30.25	19.06
20F7573	1N2565	50	6	3.80	2.39
20F7574	1N2566	100	6	4.20	2.65
20F7575	1N2567	200	6	5.10	3.21
20F7576	1N2568	300	6	6.40	4.03
20F7577	1N2569	400	6	7.90	4.98
20F7578	1N2570	500	6	10.00	6.30
20F7579	1N2571	600	6	72.20	7.69
20F7580	1N2572	700	6	13.90	10.02
20F7581	1N2573	800	6	16.90	10.65
20F7582	1N2574	900	6	19.90	12.54
20F7583	1N2575	1000	6	22.90	14.43
20F7584	1N2576	50	12	4.60	2.90
20F7585	1N2577	100	12	5.20	3.28
20F7586	1N2578	200	12	6.70	4.22
20F7587	1N2579	300	12	8.50	5.36
20F7588	1N2580	400	12	11.00	6.93
20F7589	1N2581	500	12	14.00	8.82
20F7590	1N2582	600	12	17.80	11.21
20F7591	1N2583	700	12	23.00	14.49
20F7592	1N2584	800	12	26.00	16.38
20F7593	1N2585	900	12	29.00	18.27
20F7594	1N2586	1000	12	32.00	20.16
20F7675	1N2587	50	12	5.90	3.71
20F7676	1N2588	100	12	6.75	4.25
20F7677	1N2589	200	12	8.50	5.36
20F7678	1N2590	300	12	11.00	6.93
20F7679	1N2591	400	12	13.75	8.66
20F7680	1N2592	500	12	17.25	10.87
20F7681	1N2593	600	12	22.50	14.18
20F7682	1N2594	700	12	28.50	17.96
20F7683	1N2595	800	12	31.50	19.85
20F7684	1N2596	900	12	34.50	21.74
20F7685	1N2597	1000	12	37.50	23.65
20F7686	1N2598	50	12	4.00	2.52
20F7687	1N2599	100	12	4.60	2.90
20F7688	1N2600	200	12	5.70	3.59
20F7689	1N2601	300	12	7.20	4.42
20F7690	1N2602	400	12	9.29	5.80
20F7691	1N2603	500	12	12.00	7.56
20F7692	1N2604	600	12	15.30	9.64
20F7693	1N2605	700	12	20.00	12.60
20F7694	1N2606	800	12	23.00	14.49
20F7695	1N2607	900	12	26.00	16.38
20F7696	1N2608	1000	12	29.00	18.27

A versions available thru 1N2263 on special order.

SILICON RECTIFIERS—CASE DO-7

Rated at 25°C. unless otherwise stated.

Stk. No.	Type	PIV	Max. DC amps	1-99	100-999
20F7595	1N3282	1000	0.1	5.00	3.35
20F7596	1N3283	1500	0.1	6.60	4.40
20F7597	1N3284	2000	0.1	8.85	5.70
20F7598	1N3285	2500	0.1	10.05	6.70
20F7599	1N3286	3000	0.1	12.00	8.00

NPN SILICON PLANAR TRANSISTORS (HIGH SPEED) CASE TO-18

Stk. No.	Type	Power Dissipation (W) @ 25°C Case Temp.	Breakdown Volts BV CBO	Breakdown Volts BV EBO	Breakdown Volts BV CER	Typ. f1 (mc)	1-99	100-999
20F7562	2N706	1	25	3.0	20	250	5.00	3.75
20F7563	2N706A	1	25	5.0	20	250	5.10	3.82
20F7697	2N706B	1	25	5.0	20	250	5.25	3.94
20F7564	2N707	1	56	4.0	28		10.00	7.50
20F7698	2N708	1.2	40	5.0	20	350	7.46	5.59
20F7699	2N743	1	20	5.0	12†	400	6.80	5.10
20F7700	2N744	1	20	5.0	12†	400	7.33	5.50
20F7565	2N753	1	25	5.0	20	250	7.85	5.90
20F7701	2N914	1.2	40	5.0	20	350	13.60	10.20

NPN SILICON PLANAR TRANSISTORS (General Purpose) CASE TO-18

20F7702	2N696	2.0	60	5.0	40	80	5.00	3.75
20F7703	2N717	1.5	60	5.0	40	80	5.00	3.75
20F7704	2N697	2.0	60	5.0	40	100	5.80	4.35
20F7705	2N718	1.5	60	5.0	40	100	5.80	4.35
20F7706	2N698	2.0	120	5.0	80	90	9.26	6.95
20F7707	2N719	1.5	120	5.0	80	90	9.26	6.95
20F7708	2N699	2.0	120	5.0	80	100	12.67	9.50
20F7709	2N720	1.5	120	5.0	80	100	12.67	9.50
20F7710	2N1613	3.0	75	7.0	50	100	12.67	9.50
20F7711	2N1893	3.0	120	7.0	100	100	17.10	12.83

PNP SILICON DOUBLE DIFFUSED TRANSISTORS—AMPLIFIER CASE TO-5

Temperature —65° to +200°C. Power Dissipation 350 mw.

Stk. No.	Type	Breakdown Voltages (@ —100µA) BV CBO	BV EBO	BV CEO	Max. Icbo (@ —Vcb= —20Vdc) (µAdc)	1-99	100-999
21FX7846	2N1196	—70	—4	—70	—0.25	11.35	8.50
21FX7847	2N1197	—70	—4	—70	—0.25	11.35	8.50

PNP SILICON PLANAR TRANSISTORS—HIGH SPEED

Temperature: —65°C. to +175°C.

Stk. No.	Type	Case Style	Dissipation (mW)	(@ —100µA) BV CBO	BV EBO	BV CEO	Sw Times (in Sec) td+tr	ts+tf	1-99	100-999
21FX7840	2N1254	TO-5	275	—30	—5	—30	25	40	7.80	5.85
21FX7841	2N1255	TO-5	275	—30	—5	—30	25	60	10.27	7.70
21FX7842	2N1256	TO-5	275	—40	—5	—40	25	40	12.67	9.50
21FX7843	2N1257	TO-5	275	—40	—5	—40	25	60	12.67	9.50
21FX7844	2N1258	TO-5	275	—30	—5	—30	25	60	13.00	9.75
21FX7845	2N1259	TO-5	275	—50	—5	—50	25	60	12.85	9.64
20F7712	2N726	TO-18	300		—5	—20	25	25	13.33	10.00
20F7713	2N869	TO-18	360	—25	—5	—50			23.87	17.90

PNP SILICON PLANAR TRANSISTORS—GENERAL PURPOSE

Temperature: —65°C. to +200°C. Case style TO-5, except (*) TO-18.

Stk. No.	Type	Dissipation (mW)	BV CBO @ —100µA	BV EBO @-1mA	LV CEO @ —10mA	1-99	100-999
20F7558	2N1131	750	—50	—5	—35	6.06	4.55
20F7559	2N1131A	750	—60	—5	—40	10.00	7.50
20F7560	2N1132	750	—50	—5	—35	11.15	8.36
20F7561	2N1132A	750	—60	—5	—40	16.65	12.50
20F7640	2N1132B	750	—70	—6	—45	26.00	19.50
20F7714	2N721*	400	—50	—5	—40	6.06	4.55
20F7715	2N722*	400	—50	—5	—35	11.15	8.36
20F7716	2N1991	750	—30	—5	—20	4.25	3.19
20F7717	2N995	360	—20	—4		23.87	17.90

PNP SILICON ALLOY JUNCTION TRANSISTORS— GENERAL PURPOSE

Temperature: —65°C to —160°C. Typ. fab (mc) 0.8, except (*) 0.6

Stk. No.	Type	Case Style	Dissipation (mW) (free air)	Breakdown Voltages (@ —100µA) BV CBO	BV EBO	BV CEO	1-99	100-999
21FX7814	2N1228	TO-5	400	—15	—15	—15	4.65	3.50
21FX7821	2N1238	Coax	1W	—15	—15	—15	5.00	3.75
21FX7815	2N1229	TO-5	400	—15	—15	—15	6.65	5.00
21FX7822	2N1239	Coax	1W	—15	—15	—15	7.00	5.25
21FX7816	2N1230	TO-5	400	—35	—35	—35	8.65	6.50
21FX7823	2N1240	Coax	1W	—35	—35	—35	9.00	6.75
21FX7817	2N1231	TO-5	400	—35	—35	—35	10.65	8.00
21FX7824	2N1241	Coax	1W	—35	—35	—35	14.65	11.00
21FX7818	2N1232	TO-5	400	—60	—60	—60	16.00	12.00
21FX7825	2N1242	Coax	1W	—60	—60	—60	17.60	13.20
21FX7819	2N1233	TO-5	400	—60	—60	—60	18.35	13.75
21FX7826	2N1243	Coax	1W	—60	—60	—60	20.00	18.50
21FX7820	2N1234	TO-5	400	—110	—110	—110	24.67	18.50
21FX7827	2N1244	Coax	1W	—110	—110	—110	27.65	20.75
21FX7861	2N327A*	TO-5	385	—50	—20	—40	4.00	3.00
21FX7862	2N328A*	TO-5	385	—50	—20	—35	5.75	4.31
21FX7863	2N329A*	TO-5	385	—50	—20	—30	12.55	9.41

SILICON DIFFUSED PLANAR COMPUTER DIODES— CASE DO-7

Rated at 25°C. unless otherwise stated.. Min. FWD. current @ +1V, 10, except (*) 5. Also available in A versions.

Stk. No.	Type	Min. Brkd. Volt. (V) @ 5µA	Max. Rev. Current (µA) @ 25°C	@ 100°C	Volts	1-99	100-999
20F7718	1N903	50	0.1	10	—40	2.20	1.65
20F7719	1N904	40	0.1	10	—30	1.80	1.35
20F7720	1N905	30	0.1	10	—20	1.30	.98
20F7721	1N906	30	0.1	10	—20	1.10	.83
20F7722	1N907	40	0.1	10	—30	1.60	1.20
20F7723	1N908	50	0.1	10	—40	2.00	1.50
20F7724	1N914	100 @ 100	0.025	50 @ 150°C	—20	3.00	2.25
20F7725	1N916	100 @ 100	0.025	50 @ 150°C	—20	4.05	3.04
20F7726	1N3064	75	0.1	100 @ 150°C	—50	6.50	4.88
20F7727	1N3067*	30	0.1	100 @ 150°C	—20	1.20	.90
20F7728	1N3068*	30	0.1	100 @ 150°C	—20	1.10	.83

SILICON ALLOY COMPUTER DIODES

Rated @ 25°, unless stated.

21F 072	1N625	30	1.0	30	—20	.60	.45
21F 073	1N626	50	1.0	30	—35	.60	.49
21F 074	1N627	100	1.0	30	—75	.70	.53
21F 063	1N628	150	1.0	30	—125	.88	.66
21F 065	1N629	200	1.0	30	—175	.95	.71
21FX7704	1N643	200	0.025	5	—10	3.50	2.63
21FX7706	1N658	120	0.050	25 @ 150°C	—50	3.75	2.82
20F7605	1N659	60	5.0	25	—50	1.40	1.05
21FX7707	1N662	100	1.0	20	—10	1.20	.90
21FX7709	1N663	100	5.0	50	—75	1.60	1.20

HUGHES SEMICONDUCTORS

NEWARK CARRIES
COMPLETE LINES

SILICON GENERAL PURPOSE DIODES—CASE DO-7

Rated at 25°C. unless otherwise stated (250mW).

Stk. No.	Type	Min. Fwd. αA @ +1V	Max. Inv. µA @ Spec. DC Test V. @ 25°C (µA)	@ 150°C (mA)	Volts	1-99	100-999
21F055	1N456	40	.025	.005	25	.62	.47
21F056	1N457	20	.025	.005	60	.74	.56
21F057	1N458	7	.025	.005	125	1.86	.65
21F058	1N459	3	.025	.005	175	1.12	.84
21F051	1N461	15	.500	.030	25	.62	.47
21F052	1N462	5	.500	.030	60	.70	.53
21F053	1N463	1	.500	.030	175	.80	.60
21F059	1N464	3	.500	.030	125	1.05	.79

GERMANIUM POINT CONTACT DIODES—CASE DO-7

Rated at 25°C.

Stk. No.	Type	Min. PIV (V)	Min. Fwd. Current (mA) @ +1 V	Max. Rev. µA I(R) (µA)	@ V(R) (V)	1-99	100-999
20F7634	1N34A	75	5	500	50	.43	.32
20F7790	1N38A	125	4	500	100	.80	.60
20F7791	1N38B	125	4-25	500	100	.80	.60
20F7792	1N39A	225	3	600	200	1.70	1.28
20F7793	1N39B	225	4	600	200	1.70	1.28
20F7794	1N43	60	5	900	50	.46	.35
20F7795	1N44	115	3	1000	50	.62	.47
20F7796	1N45	110	3	410	50	.56	.42
20F7797	1N46	80	3	1500	50	.40	.30
20F7798	1N47	115	3	410	50	.56	.42
20F7799	1N52A	85	5-25	100	50	.62	.47
20F7862	1N54A	75	5	7	10	.65	.49
20F7863	1N55A	170	4	500	150	1.50	1.13
21F025	1N55B	190	5	500	150	1.65	1.24
20F7864	1N56A	50	15	300	30	.42	.32
20F7865	1N57	100	3.6	300	75	.58	.44
20F7866	1N58A	120	4	600	100	.60	.45
20F7867	1N59	275	3	800	250	3.00	2.25
20F7868	1N61	140	5	700	125	1.16	.87
20F7869	1N66	70	5	800	50	.60	.45
21F026	1N67A	100	4	50	50	.61	.46
21F027	1N68A	120	3	825	100	1.00	.75
20F7870	1N69	75	5	850	50	.46	.35
20F7871	1N69A	75	5-25	500	50	.38	.29
20F7872	1N70	125	3	300	50	.66	.50
20F7873	1N70A	125	3-25	300	50	.70	.53
20F7874	1N75	125	2.5	50	50	.78	.59
20F7875	1N81	50	3	10	10	.46	.35
20F7876	1N81A	50	3-25	10	10	.55	.41
20F7877	1N86	85	4	833	50	.46	.35
20F7878	1N88	110	2.5	100	50	.38	.29
21F029	1N90	75	5	500	50	.38	.29
21F030	1N95	75	10	800	50	.52	.39
21F034	1N99	100	10	50	50	.88	.66
21F036	1N116	75	5	100	50	.56	.42
21F037	1N117	75	10	100	50	.58	.44
20F7879	1N126	75	5	850	50	.45	.34
21F040	1N127	125	3	300	50	.89	.68
20F7880	1N128	50	3	100	100	.50	.38
20F7881	1N142	125	5	100	100	.85	.64
21F042	1N191	90	5			.58	.44
21F044	1N198	100	4	50	50	.51	.39
21FX7702	1N198A	100	4-25	50	50	.51	.39
20F7882	1N198B	100	4-25	50	50	1.04	.78
20F7883	1N290	120	5	100	100	.88	.66
20F7635	1N294	70	5	800	50	.52	.39
20F7884	1N355	100	4	50	50	.68	.51
20F7885	1N480	60	5			.85	.64
20F7886	1N476	100	2.5			.62	.47
20F7887	1N478	100	5	7	10	.54	.41
20F7888	1N617	115	3	180	75	.68	.51
20F7889	1N618	115	5	115	75	.64	.48
20F7890	1N631	90		120	60	.58	.44
20F7891	1N632	90	7	120	60	.64	.48
20F7636	1N636	60	2.5	10	10	.53	.40

SILICON CAPACITORS—CASE DO-7

Rated at 25°C.

Stk. No.	Type	Cap. uuf	Max. Volts	Cap. Range uuf	Typical Q (@ 5 Mc and Max. Voltage)	1-99	100-999
21F7600	1N950	35	130VDC	6-88	360	3.80	2.85
21F7601	1N951	50	80VDC	12-120	330	3.50	2.63
21F7602	1N952	70	60VDC	20-170	270	2.90	2.18
21F7603	1N953	100	25VDC	46-240	200	3.00	2.25
21F7604	1N954	35	25VDC	14-88	175	1.80	1.35
21F7605	1N955	50	25VDC	22-120	175	2.00	1.50
21F7606	1N956	70	25VDC	32-170	175	2.40	1.80

SILICON HIGH VOLAGE DIODES (RECTIFIERS)—CASE DO-7

Rated at (200-600 mW).

Stk. No.	Type	Min. Brkd. V @ 100µA	Min. Fwd. ma @ +1V	Maximum Inverse Current @ specified DC Test Voltage @ 25°C (µA)	@ 100°C (mA)	Volts	1-99	100-999
20F7893	1N645A	275	400	0.200 0.05 @ 60V	0.015 0.01 @ 125°C	225 125	2.95	2.25
20F7894	1N645B	275	400	0.025 0.005 @ 60V		225	3.50	2.63
20F7895	1N676	115	200	1.0		100	1.70	1.28
20F7896	1N677	115	400	1.0		100	2.20	1.65
20F7897	1N678	230	200	1.0		200	2.30	1.73
20F7898	1N679	230	400	1.0		200	2.85	2.14
20F7899	1N681	340	200	1.0		300	2.70	2.03
20F7900	1N682	340	400	1.0		300	3.75	2.81
20F7901	1N683	455	200	1.0		400	3.75	2.81
20F7902	1N684	455	400	1.0		400	4.85	3.64
20F7903	1N685	565	200	1.0		500	4.75	3.56
20F7904	1N686	565	400	1.0		500	5.75	4.31
20F7905	1N687	680	200	1.0		600	5.75	4.31
20F7906	1N689	680	400	1.0		600	5.90	4.43
21FX7874	1N850	400	150	0.200		280	1.80	1.
21FX7875	1N851	500	150	0.200		350	2.51	1
21FX7876	1N852	600	150	0.200		420	2.63	1.
21FX7877	1N853	700	150	0.200		490	2.91	2.
21FX7885	1N861	400	100	0.200		280	1.50	1.13
21FX7886	1N862	500	100	0.200		350	2.09	1.57
21FX7887	1N863	600	100	0.200		420	2.19	1.64
21FX7888	1N864	700	100	0.200		490	2.41	1.81
20F7907	1N872	400	50	0.200		280	1.20	.90
20F7908	1N873	500	50	0.200		350	1.67	1.25
20F7909	1N874	600	50	0.200		420	1.75	1.31
20F7910	1N875	700	50	0.200		490	1.93	1.45
20F7911	1N876	800	50	0.200		560	2.28	1.71
20F7912	1N877	900	50	0.200		630	2.77	2.08
20F7913	1N878	1000	50	0.200		700	3.29	2.47
20F7914	1N883	400	10	0.200		280	.90	.68
20F7915	1N884	500	10	0.200		350	1.25	.94
20F7916	1N885	600	10	0.200		420	1.31	.98
20F7917	1N886	700	10	0.200		490	1.45	1.09
20F7918	1N887	800	10	0.200		560	1.73	1.30
20F7919	1N888	900	10	0.200		630	2.08	1.56
20F7920	1N889	1000	10	0.200		700	2.47	1.85

SILICON HIGH CONDUCTANCE DIODES—CASE DO-7

Rated at 25°C unless otherwise stated (250mW).

21F7525	1N482	1.1	.250	.030	—30	.89	.67
21F7526	1N482A	1.0	.025	.015	—30	.91	.68
21F7527	1N482B	1.0	.025	.005	—30	.95	.71
21F7528	1N483	1.1	.250	.030	—60	1.00	.75
21F7529	1N483A	1.0	.025	.015	—60	1.14	.86
21F7530	1N483B	1.0	.025	.005	—60	1.20	.90
21F7531	1N484	1.1	.250	.030	—125	1.25	.94
21F7532	1N484A	1.0	.025	.015	—125	1.34	1.01
21F7533	1N484B	1.0	.025	.005	—125	1.42	1.07
21F7534	1N485	1.1	.250	.030	—175	1.45	1.09
21F7535	1N485A	1.0	.025	.015	—175	1.50	1.13
21F7536	1N485B	1.0	.025	.005	—175	2.00	1.50
21F7537	1N486	1.1	.250	.050	—225	2.00	1.50
21F7538	1N486A	1.0	.050	.025	—225	2.10	1.58
21FX7703	1N486B	1.0	.050	.010	—225	2.40	1.80
21F7539	1N487	1.1	.250	.050	—300	2.50	1.88
21F7540	1N487A	1.0	.100	.025	—300	2.75	2.06
21F7541	1N488	1.1	.250	.050	—380	2.85	2.14
21F7542	1N488A	1.0	.100	.025	—380	2.95	2.21
21FX7870	1N846	1.0	.200		—35	.52	.39
21FX7871	1N847	1.0	.200		—70	.64	.48
21FX7872	1N848	1.0	.200		—140	.72	.54
21FX7873	1N849	1.0	.200		—210	.80	.60
21FX7881	1N857	1.0	.200		—35	.48	.36
21FX7882	1N858	1.0	.200		—70	.60	.45
21FX7883	1N859	1.0	.200		—140	.68	.51
21FX7884	1N860		.200		—210	.76	.57

SILICON ULTRA FAST COMPUTER DIODES

Rated at 25°C. Max. Rev. Recovery time to 1 mA sec. 0.5 Min. fwd. I @ 1VDC (mAdc): 2, except (*) 5.

Stk. No.	Type	Max. Rev. Cur. @ -5VDC (Adc) @ 25°C	100°C	Min. BV @ -100 VDC (Adc)	1-99	100-999
21FX7912	*HD-5000	0.2	2	20	3.60	2.70
21FX7913	*HD-5001	1	10	20	3.20	2.40
21FX7914	HD-5002	0.2	2	20	2.80	2.10
21FX7915	HD-5003	1	10	20	2.40	1.80
21FX7916	HD-5004	1	20	15	2.00	1.50

NEWARK CAN SUPPLY ALL HUGHES SEMICONDUCTORS WHETHER OR NOT THEY ARE LISTED IN THIS CATALOG.

HUGHES SEMICONDUCTORS

GERMANIUM GOLD BONDED DIODES
CASE DO-7

Rated at 25°C. unless otherwise stated.

Stk. No.	Type	Min. PIV (V)	Min. Fwd Current @+1V (mA)	Max. Rev. µA 1R @ (µA)	Max. Rev. µA VR (V)	1-99	100-999
21F031	1N96	75	20	800	50	.59	.44
21FX7721	1N96A	75	40	500	50	.59	.44
21F033	1N98	100	20	100	50	.66	.50
21FX7722	1N98A	100	40	100	50	.66	.50
21F035	1N100	100	20	50	50	.96	.72
21FX7723	1N100A	100	40	50	50	1.00	.75
21F038	1N118	75	20	100	50	.61	.46
21FX7724	1N118A	75	40	100	50	.63	.47
20F7601	1N139	50	20	1500	50	.48	.36
20F7602	1N140	85	40	300	50	.38	.29
20F7731	1N141	85	20	50	50	.70	.53
20F7732	1N143	125	40	100	100	.95	.71
21FX7725	1N270	80	200	100	50	.75	.56
21FX7726	1N273	100	30	20	20	.68	.51
21FX7727	1N276	60	40	100	50	.60	.45
21FX7728	1N277	100	100	250	50	.93	.70
21FX7729	1N278	50	20			1.03	.77
21FX7730	1N279	100	30	200	20	.71	.53
21FX7731	1N281	60	100	500	50	.58	.44
21FX7732	1N283	200	20	20	10	.60	.45
20F7733	1N287	60	20	1500	50	.88	.66
20F7734	1N288	85	40	350	50	.88	.66
20F7735	1N289	85	20	50	50	.90	.68
20F7736	1N291	120	40	100	100	.95	.71
20F7737	1N292	75	100	200	50	.60	.45
20F7738	1N447	75	25	60	30	.56	.42
20F7739	1N448	120	25	100	100	1.00	.75
20F7740	1N449	50	50	30	30	.62	.47
20F7741	1N450	120	50	100	100	1.02	.77
20F7742	1N451	170	50	150	150	1.62	1.22
20F7743	1N452	50	100	30	30	.64	.48
20F7744	1N453	120	100	100	100	1.04	.78
20F7745	1N454	75	200	50	50	.76	.57
20F7746	1N455	50	300	30	30	.80	.60
20F7747	1N497	30	120@0.8	5	20	.72	.54
20F7748	1N498	60	120@0.8	5	40	1.16	.87
20F7749	1N499	75	120@0.8	10	50	.92	.69
20F7750	1N500	80	120@0.8	10	60	.91	.68
20F7751	1N501	100	100@0.8	20	80	.80	.60
20F7752	1N502	120	100@0.8	20	100	1.12	.84
20F7603	1N695	20	100	2	10	1.43	1.07
20F7753	1N695A	25	10@0.5	2	10	1.44	1.08
20F7754	1N699	105	100			1.02	.77
20F7755	1N770	(@70°C)	15@0.5			.78	.59
20F7756	1N771	100	100	500	100	.96	.72
20F7757	1N771A	100	200	500	100	1.02	.77
20F7758	1N771B	100	400	500	100	1.28	.96
20F7759	1N772	80	100	500	80	.70	.53
20F7760	1N772A	80	200	500	80	.76	.57
20F7761	1N773	75	100	100	50	.66	.50
20F7762	1N773A	75	200	100	50	.72	.54
20F7763	1N774	70	100	150	50	.64	.48
20F7764	1N774A	70	200	150	50	.70	.53
20F7765	1N775	70	100	250	50	.58	.44
20F7766	1N776	30	50	500	30	.32	.24
20F7767	1N777	70	100	125	50	.66	.50
20F7768	1N781	40	10@0.45	5	10	.90	.68
20F7769	1N781A	40	10@0.45	5	10	.90	.68
20F7773	1N995	15	10@0.5	10	6	.76	.57
20F7774	1N3125	55	5@0.4	10	40	.80	.60
20F7775	1N949	50	10@0.34	10	10	1.00	.75

SILICON VOLTAGE REGULATOR DIODES
CASE DO-7

Rated at 400mW

Stk. No.	Type	Zener Breakdown Voltage (Vz) Min.	Nom.	Max.	Test Current (Iz) (mAdc)	1-99	100-499
20F7530	1N746	2.97	3.3	3.63	20	2.75	2.06
20F7531	1N746A	3.135	3.3	3.465	20	3.60	2.70
20F7532	1N747	3.24	3.6	3.96	20	2.75	2.06
20F7533	1N747A	3.42	3.6	3.78	20	3.60	2.70
20F7534	1N748	3.51	3.9	4.29	20	2.75	2.06
20F7535	1N748A	3.705	3.9	4.095	20	3.60	2.70
20F7536	1N749	3.87	4.3	4.73	20	2.75	2.06
20F7537	1N749A	4.085	4.3	4.515	20	3.60	2.70
20F7538	1N750	4.23	4.7	5.17	20	2.75	2.06
20F7539	1N750A	4.465	4.7	4.935	20	3.60	2.70
20F7540	1N751	4.59	5.1	5.61	20	2.75	2.06
20F7541	1N751A	4.845	5.1	5.355	20	3.60	2.70
20F7542	1N752	5.04	5.6	6.16	20	2.75	2.06
20F7543	1N752A	5.32	5.6	5.88	20	3.60	2.70
20F7544	1N753	5.58	6.2	6.82	20	2.75	2.06
20F7545	1N753A	5.89	6.2	6.51	20	3.60	2.70
20F7546	1N754	6.12	6.8	7.48	20	2.75	2.06
20F7547	1N754A	6.46	6.8	7.14	20	3.60	2.70

SILICON VOLTAGE REGULATOR DIODES (Cont.)

Stk. No.	Type	Zener Breakdown Voltage (Vz) Min.	Nom.	Max.	Test Current (Iz) (mAdc)	1-99	100-499
20F7548	1N755	6.75	7.5	8.25	20	2.75	2.06
20F7549	1N755A	7.125	7.5	7.875	20	3.60	2.70
20F7550	1N756	7.38	8.2	9.02	20	2.75	2.06
20F7551	1N756A	7.79	8.2	8.61	20	3.60	2.70
20F7552	1N757	8.19	9.1	10.01	20	2.75	2.06
20F7553	1N757A	8.645	9.1	9.555	20	3.60	2.70
20F7554	1N758	9.00	10.0	11.00	20	2.75	2.06
20F7555	1N758A	9.50	10.0	10.50	20	3.60	2.70
20F7556	1N759	10.80	12.0	13.20	20	2.75	2.06
20F7557	1N759A	11.40	12.0	12.60	20	3.60	2.70

SILICON VOLTAGE REGULATOR DIODES—CASE DO-7

250mW types. Rated at 25°C unless otherwise stated.

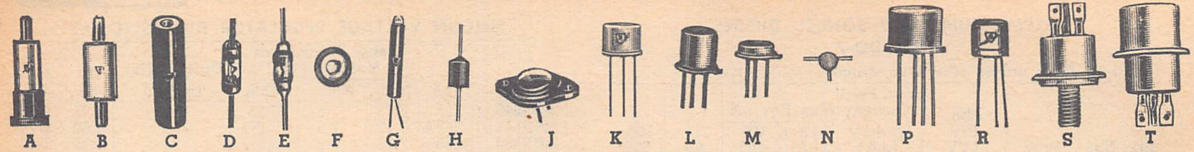
Stk. No.	Type	Zener Breakdown Voltage (Vz or Ez) Min.	Nom.	Max.	D.C. Test Current (Iz) (mA)	1-99	100-999
21FX7736	1N702	2.0	2.6	3.2	5	2.64	1.98
21FX7737	1N702A	2.47	2.6	2.73	5	3.21	2.41
21FX7738	1N703	3.0	3.45	3.9	5	2.53	1.90
21FX7739	1N703A	3.28	3.45	3.62	5	2.53	1.89
21FX7740	1N704	3.7	4.1	4.5	5	2.31	1.73
21FX7741	1N704A	3.9	4.1	4.3	5	2.53	1.90
21FX7742	1N705	4.3	4.85	5.4	5	2.20	1.65
21FX7743	1N705A	4.6	4.85	5.1	5	2.42	1.82
21FX7744	1N706	5.2	5.8	6.4	5	2.20	1.65
21FX7745	1N706A	5.51	5.8	6.09	5	2.42	1.82
21FX7746	1N707	6.2	7.1	8.0	5	2.20	1.65
21FX7747	1N707A	6.75	7.1	7.45	5	2.42	1.82
21FX7748	1N708	5.04	5.6	6.16	25	2.64	1.98
21FX7749	1N708A	5.32	5.6	5.88	25	3.21	2.41
21FX7750	1N709	5.58	6.2	6.82	25	2.20	1.65
21FX7751	1N709A	5.89	6.2	6.51	25	2.42	1.82
21FX7752	1N710	6.12	6.8	7.48	25	2.20	1.65
21FX7753	1N710A	6.46	6.8	7.14	25	2.42	1.82
21FX7754	1N711	6.75	7.5	8.25	25	2.20	1.65
21FX7755	1N711A	7.12	7.5	7.88	25	2.42	1.82
21FX7756	1N712	7.38	8.2	9.02	25	2.20	1.65
21FX7757	1N712A	7.79	8.2	8.61	25	2.42	1.82
21FX7758	1N713	8.19	9.1	10.01	12	2.09	1.57
21FX7759	1N713A	8.64	9.1	9.56	12	2.29	1.72
21FX7760	1N714	9.0	10	11.0	12	2.09	1.57
21FX7761	1N714A	9.5	10	10.5	12	2.29	1.72
21FX7762	1N715	9.9	11	12.1	12	2.09	1.57
21FX7763	1N715A	10.45	11	11.55	12	2.66	2.00
21FX7764	1N716	10.8	12	13.2	12	2.09	1.57
21FX7765	1N716A	11.4	12	12.6	12	2.66	2.00
21FX7766	1N717	11.7	13	14.3	12	2.09	1.57
21FX7767	1N717A	12.35	13	13.65	12	2.29	1.72
21FX7768	1N718	13.5	15	16.5	12	1.98	1.49
21FX7769	1N718A	14.25	15	15.75	12	2.53	1.90
21FX7770	1N719	14.4	16	17.6	12	1.98	1.49
21FX7771	1N719A	15.2	16	16.8	12	2.53	1.90
21FX7772	1N720	16.2	18	19.8	12	2.64	1.98
21FX7773	1N720A	17.1	18	18.9	12	3.21	1.49
20F7520	1N721	18.0	20	22.0	4	1.98	1.41
20F7521	1N721A	19.0	20	21.0	4	2.53	1.90
20F7522	1N722	19.8	22	24.2	4	2.31	1.73
20F7523	1N722A	20.9	22	23.1	4	2.53	1.90
20F7524	1N723	21.6	24	26.4	4	2.20	1.65
20F7525	1N723A	22.8	24	25.2	4	2.42	1.82
20F7526	1N724	24.3	27	29.7	4	2.75	2.06
20F7527	1N724A	25.65	27	28.35	4	3.04	2.28
20F7528	1N725	27.0	30.0	33.0	4	2.75	2.06
20F7529	1N725A	28.5	30.0	31.5	4	3.04	2.28

SINGLE ENDED CASE—CASE C1

250mW types.

20F7645	1N465	2.0		3.2	5	3.00	2.05
20F7651	1N465A	2.47		2.73	5	3.50	2.50
20F7646	1N466	3.0		3.9	5	3.00	2.05
20F7652	1N466A	3.28		3.62	5	3.50	2.50
20F7647	1N467	3.7		4.5	5	3.00	2.05
20F7653	1N467A	3.89		4.31	5	3.50	2.50
20F7648	1N468	4.3		5.4	5	3.00	2.05
20F7654	1N468A	4.61		5.09	5	3.50	2.50
20F7649	1N469	5.2		6.4	5	3.00	2.05
20F7655	1N469A	5.51		6.09	5	3.50	2.50
20F7650	1N470	6.2		8.0	5	3.00	2.05
20F7656	1N470A	6.74		7.46	5	3.50	2.50
20F7776	1N1313	7.5		10.0	0.2	3.00	2.05
20F7777	1N1313A	8.31		9.19	0.2	3.50	2.50
20F7778	1N1314	9.0		12.0	0.2	3.00	2.05
20F7779	1N1314A	9.97		11.03	0.2	3.50	2.50
20F7780	1N1315	11.0		14.5	0.2	3.00	2.05
20F7781	1N1315A	12.11		13.39	0.2	3.50	2.50
20F7782	1N1316	13.5		18.0	0.2	3.00	2.05
20F7783	1N1316A	14.96		16.54	0.2	3.50	2.50
20F7784	1N1317	17.0		21.0	0.2	3.00	2.05
20F7785	1N1317A	18.05		19.95	0.2	3.50	2.50
20F7786	1N1318	20.0		27.0	0.2	3.00	2.05
20F7787	1N1318A	22.32		24.68	0.2	3.50	2.50
20F7788	1N1319	25.0		32.0	0.2	3.00	2.05
20F7789	1N1319A	27.07		29.93	0.2	3.50	2.50

SYLVANIA SEMI-CONDUCTORS



SPECIAL MILITARY DESIGNATED SEMICONDUCTORS

When ordering Special Military Designated units, two (2) copies of your Purchase Order must be sent to NEWARK.

Type	Mil. Spec	1-99	100-999	1000-4999
JAN 1N21B	MIL-E-1/656	.68	.54	.49
JAN 1N21C	MIL-E-1/657	1.02	.81	.73
JAN 1N21WE	MIL-E-1/1115	9.35	7.40	......
JAN 1N23B	MIL-E-1/618	.67	.54	.49
JAN 1N23CR	MIL-E-1/550A	1.41	1.12	1.01
JAN 1N23C	MIL-E-1/295B	1.02	.81	.73
JAN 1N23WE	MIL-E-1/1117A	6.60	5.20	......
JAN 1N25	MIL-E-1/658	3.53	2.74	......
JAN 1N26	MIL-E-1/659B	6.50	5.10	......
JAN 1N31	MIL-E-1/661A	7.05	5.53	......
JAN 1N32	MIL-E-1/27A	11.61	9.30	......
JAN 1N53	MIL-E-1/487B	23.20	18.60	......
USN 1N55A	MIL-E-1/497B	2.51	1.97	1.58
JAN 1N69A	MIL-E-1/142D	.58	.45	.36
JAN 1N70A	MIL-E-1/154D	1.01	.79	.63
JAN 1N78	MIL-E-1/662A	6.50	5.10	......
JAN 1N81A	MIL-E-1/155D	.75	.59	.47
USA 1N82A	MIL-E-1/1299	.91	.71	.61
JAN 1N126A	MIL-E-1/156C	.44	.34	.27
JAN 1N127A	MIL-E-1/157C	.89	.70	.59
JAN 1N128	MIL-E-1/158B	.48	.38	.30
JAN 1N198(1)	MIL-E-1/700	.51	.40	.32
JAN 1N198(2)	MIL-E-1/700	.51	.40	.32
JAN 1N251	MIL-S-19500/188	.70	.55	.44
JAN 1N270	MIL-S-19500/200	.50	.39	.31
JAN 1N276	MIL-S-19500/192	.43	.34	.27
JAN 1N277M	MIL-S-19500/201	.59	.46	.37
JAN 1N457	MIL-S-19500/193A	.45	.36	.29
JAN 1N458	MIL-S-19500/193A	.51	.40	.32
JAN 1N459	MIL-S-19500/193A	.66	.51	.41
USN 1N483B	MIL-S-19500/118	.69	.54	.43
JAN 1N933M	MIL-S-19500/119A	1.12	.85	.70
JAN 2N326	MIL-S-19500/40A	14.10	9.40	......
USN 2N705	MIL-S-19500/86	3.00	2.00	......
USA 2N1224	MIL-S-19500/189	2.33	1.55	......
USA 2N1225	MIL-S-19500/189	3.33	2.22	......

(1) Point Contact design. (2) Gold Bonded designed.

NPN GERMANIUM AUDIO & POWER TRANSISTORS

Absolute Maximum Ratings (25°C)

Stk. No.	Type	Fig.	Description	Pt mw	VCB V	Ic ma	1-99	100-999
21F010	2N35	R	Hi Gain Audio	150	+40	100	1.17	.78
21F018	2N102/13	T	Power Switch	4W	+30	1.5a	4.50	3.00
21FX4768	2N144/13	T	Power Switch	4W	+60	0.8a	8.14	5.43
21FX4770	2N213	R	Audio Driver	150	+40	100	1.25	.83
21F380	2N213A	R	Hi Gain Dr.	180	+40	100	1.59	1.05
21F4506	2N214	R	Push-Pull Aud	180	+40	100	1.42	.94
21F4509	2N228	R	Audio Output	50	+40	100	1.59	1.05
21F381	2N229	R	Gen. Purpose	50	+12	40	.50	.33
21F4521	2N306	R	Gen. Purpose	50	+20	50	.84	.56
21F4527	2N326	J	Audio Power	7W	+35	2a	12.60	8.40
21F4571	2N1059	R	Output	180	+20	100	1.00	.67
21F4572	2N1101	R	Push-Pull Aud	180	+20	100	.75	.50
21F4573	2N1102	R	Push-Pull Aud	180	+40	100	.84	.56
21FX4806	2N1218	J	Audio Power	6W	+45	2a	7.50	5.00
21FX4861	2N1292	J	Power	25W	+35	3a	10.05	6.70
20F4585	2N1251	R	Hi Gain Audio	150	+20	100	1.00	.67
20F4586	2N1294	J	Power Switch	25W	+60	3a	13.10	8.75
20F4642	2N1296	J	Power Switch	25W	+80	3a	17.60	11.75
20F4644	2N1321	S	Power Switch	25W	+35	3a	10.10	6.75
20F4645	2N1323	S	Power Switch	25W	+60	3a	13.10	8.75
20F4646	2N1325	S	Power	25W	+80	3a	17.25	11.50
21FX4811	2N1431	R	Push-Pull Aud	180	+20	100	1.12	.86
21FX4862	2N2354	R	Audio Output	180	+20	150	.92	.61
21FX4863	SYL103	R	Hi Gain Audio	150	+40	100	1.17	.78
21FX4864	SYL104	R	Push-Pull Aud	180	+40	100	1.47	.98

NPN GERMANIUM MED. FREQ. AMPLIFIER TRANSISTORS

Absolute Maximum Ratings

21F015	2N94	R	IF Amplifier	50	+25	100	1.34	.89
21F016	2N94A	R	IF Amplifier	50	+25	100	1.50	1.00
21FX4700	2N194A	R	Converter	50	+25	100	1.42	.94
21F4505	2N212	R	Converter	50	+20	100	1.50	1.00
21FX4865	2N211	R	Osc/Mix/Conv	150	+18	100	1.80	1.38
21F4510	2N233	R	Gen. Purpose	50	+12	100	.50	.33
21F4570	2N1058	R	Converter	50			1.75	1.17
21FX4866	SYL101	R	Converter	150	+18	100	1.50	1.00

PNP GERMANIUM HIGH FREQ. AMPLIFIER TRANSISTORS

Absolute Maximum Ratings. *Pancake

Stk. No.	Type	Fig.	Description	Pt mw	VCB V	Ic ma	1-99	100-999
20F4618	2N624	P	12.5 mc Amp.	100	—30	10	8.10	5.40
20F4639	2N1224	P	12.5 mc Amp.	120	—40	10	2.00	1.33
20F4640	2N1225	P	50 mc Amp.	120	—40	10	2.67	1.78
20F4641	2N1226	P	12.5 mc Amp.	120	—60	10	3.23	2.16
20F4647	2N1395	P	Amplifier				2.10	1.40
21FX4869	2N1396	P	50 mc Amp.	120	—40	10	3.64	2.43
21FX4812	2N1432	P	Linear Amp.	100	—45	10	2.41	1.61
21FX4870	2N1673	P	IF/RF Amj.	80	—35	10	2.85	1.90
21FX4871	2N1699	*	50 mc Amp.	100	—40	10	37.50	25.00

PNP EPITAXIAL GERMANIUM MESA TRANSISTORS

Absolute Maximum Ratings. *Pancake

20F4617	2N501/18	L	Hi Spd Switch	150	—15	200	5.17	3.45
21FX4845	2N781	L	Hi Spd Switch	150	—15	200	11.72	7.81
21FX4846	2N782	L	Hi Spd Switch	150	—12	200	2.67	1.78
20F4629	2N828	L	Hi Spd Switch	300	—15	200	4.00	2.67
20F4632	2N960	L	Hi Spd Switch	150	—15	150	4.00	2.68
20F4633	2N961	L	Hi Spd Switch	150	—12	150	3.18	2.12
20F4634	2N962	L	Hi Spd Switch	150	—12	150	2.58	1.72
21FX4875	2N963	L	Hi Spd Switch	150	—12	150	1.57	1.05
20F4635	2N964	L	Hi Spd Switch	150	—15	150	4.57	3.05
20F4636	2N965	L	Hi Spd Switch	150	—12	150	3.78	2.52
20F4637	2N966	L	Hi Spd Switch	150	—12	150	3.18	2.12
21FX4876	2N967	L	Hi Spd Switch	150	—12	150	1.95	1.30
21FX4877	2N985	L	Hi Spd Switch	150	—15	200	4.58	3.05
20F4575	2N1960	*	Hi Spd Switch	150	—15	200	15.00	10.00
20F4576	2N1961	*	Hi Spd Switch	150	—12	200	8.25	5.50
20F4655	2N2455	L	Switch/Amp.	150	—15	200	4.50	3.00
21FX4878	2N2456	L	Switch/Amp.	150	—15	200	22.50	15.00

NPN EPITAXIAL SILICON MESA TRANSISTORS

Absolute Maximum Ratings (25°C). *Pancake

21FX4880	2N708	L	Hi Spd Switch	360	+40		4.54	3.08
20F4626	2N743	L	Hi Spd Switch	300	+20	200	7.65	5.10
20F4627	2N744	L	Hi Spd Switch	200	+20	200	8.25	5.50
20F4561	2N783	L	Hi Spd Switch	300	+40	200	7.50	5.00
20F4562	2N784	L	Hi Spd Switch	300	+30	200	8.08	5.39
21FX4881	2N784A	L	Hi Spd Switch	360	+40	200	11.25	7.50
20F4630	2N834	L	Hi Spd Switch	300	+60	200	8.25	5.50
20F4631	2N835	L	Hi Spd Switch	300	+25	200	5.40	3.60
20F4573	2N1958	K	Hi Spd Switch	600	+60	500	6.00	4.00
20F4653	2N1958/18	L	Hi Spd Switch	600	+60	500	6.16	4.11
20F4574	2N1959	K	Hi Spd Switch	600	+60	500	6.16	4.11
20F4654	2N1959/18	L	Hi Spd Switch	600	+60	500	6.33	4.22
21FX4882	2N1962	*	Hi Spd Switch	400	+40	200	24.75	16.50
21FX4883	2N1963	*	Hi Spd Switch	400	+30	200	24.75	16.50
21FX4884	2N1964	*	Hi Spd Switch	400	+60	500	24.00	16.00
21FX4885	2N1965	*	Hi Spd Switch	400	+60	500	24.00	16.00
21FX4886	2N1990	K	Hi Spd Switch	2.0w	100		3.60	2.40
21FX4887	2N2397	N	Hi Spd Switch	300	+35	200	20.00	15.00

PNP GERMANIUM MESA TRANSISTORS

21FX4801	2N705	L	Hi Spd Switch	150	—15	50	2.48	1.65
20F4557	2N705A	L	Hi Spd Switch	150	—15	100	2.91	1.94
21FX4802	2N710	L	Hi Spd Switch	150	—15	50	2.48	1.65
21FX4803	2N711	L	Hi Spd Switch	150	—12	50	1.49	.99
20F4560	2N711A	L	Hi Spd Switch	150	—15	200	1.53	1.02
20F4623	2N711B	L	Hi Spd Switch	150	—18	200	2.18	1.45
20F4624	2N741	L	Hi Freq. Amp.	150	—15	100	2.15	1.45
20F4625	2N741A	L	Hi Freq. Amp.	150	—20	100	3.30	2.20
20F4649	2N1500/18	L	Hi Spd Switch	50	—12	50	6.38	4.68
21FX4874	2N1646	L	Hi Spd Switch	150	—15	50	6.00	4.00

NPN SILICON MESA TRANSISTORS

20F4556	2N696	K	Hi Spd Switch	600	+60	175	4.13	2.75
20F4652	2N697	K	Hi Spd Switch	600	+60	175	4.95	3.30
20F4558	2N706	L	Hi Spd Switch	300	+25	50	3.71	2.48
20F4559	2N706A	L	Hi Spd Switch	300	+25	50	4.13	2.75
20F4628	2N753	L	Hi Spd Switch	300	+25	50	6.00	4.00

SILICON BONDED DIODES

Stk. No.	Type	Fig.	PIV	Ifwd (ma) @ 1 volt Min Max	Reverse Current ua max.	1-99	100-999	1000-4999
21FX4830	1N251	D	40	5	20@-20V	.70	.55	.44
21FX4831	1N252	D	30	10	20@-12V	.64	.50	.40
20F4611	1N997	D	40	10	0.25@-12V	2.90	2.25	1.80

SILICON UHF MIXER DIODES

21F456	1N82	E	5	10	20	500@-3V	.70	.55	.44
21F459	1N82A	E	5	10	20	500@-3V	.91	.71	.57
21FX4909	D3530	D	5	8	25	3000@-3V	1.30	.90	.80

SYLVANIA SEMI-CONDUCTORS

GERMANIUM DIODES

Absolute Maximum Ratings (25°C).

(**) Matched pair

Stk. No.	Type	Fig.	PIV	Ifwd (ma) @ IvoH Min.	Ifwd (ma) @ IvoH Max.	Reverse ua max.	1-99	100-999	1000-4999
21F420	1N34A	D-E	75	5	25	500@ —50V	.32	.23	.20
21FX4827	1N35	**	75	7.5	25	10@ —10V	1.58	1.21	.99
21FX4888	1N38A	D-E	125	4	......	500@—100V	.75	.57	.46
21F4600	1N38B	D-E	125	4	25	500@—100V	.75	.57	.46
21FX4889	1N52A	E	85	5	25	100@ —50V	1.06	.83	.66
21F422	1N54A	D-E	75	5	25	100@ —50V	.55	.39	.31
21FX4890	1N55A	D-E	170	4	25	500@—150V	1.44	1.13	.90
21F424	1N56A	E	50	15	......	300@ —30V	1.14	.89	.71
21F421	1N58A	D-E	120	4	25	600@—100V	.77	.55	.45
21F412	1N60	E	30	......	......	....	.48	.38	.30
21F4603	1N63	D-E	125	4	25	50@ —50V	.90	.60	.48
21F4604	1N65	D-E	85	2.5	25	200@ —50V	.48	.35	.30
21F4605	1N67A	D	100	4	25	50@ —50V	.61	.48	.38
20F4501	1N68A	E	125	3	25	625@—100V	.70	.55	.44
21F4606	1N69A	E	80	5	25	500@ —50V	.58	.45	.36
21F4607	1N70A	E	130	3	25	300@ —50V	1.01	.79	.63
21FX4760	1N77A	G	60	10	......	30@ —50V	20.00	13.35	12.00
21F458	1N77B	G	60	10	......	30@ —50V	20.00	13.35	12.00
21F4608	1N81A	E	155	3	25	10@ —10V	.75	.59	.47
21F4609	1N90	D	75	5	25	750@ —50V	.35	.27	.22
21F4610	1N98	D	100	20	......	100@— 50V	.67	.51	.41
21F404	1N39B	E	220	4	25	600@—200V	4.00	3.10	2.48
20F4502	1N100	D	100	20	......	100@ —50V	.51	.40	.32
21FX4891	1N115	E	70	2.5	25	500@ —50V	.96	.75	.60
21FX4892	1N116	D	......	5	25	750@ —50V	.53	.41	.33
21FX4893	1N117	D	75	10	......	100@ —50V	.58	.45	.36
21FX4761	1N118	D	75	20	......	100@ —50V	.61	.48	.38
21FX4894	1N118A	D	......	40	......	100@ —50V	.61	.48	.38
20F4503	1N119	E	75	5	20	425@ —50V	1.07	.84	.67
21FX4895	1N120	E	75	5	25	425@ —50V	.96	.69	.60
21F4612	1N126A	D	75	5	25	800@ —50V	.44	.34	.27
20F4602	1N127A	D	125	3	25	300@ —50V	.89	.70	.59
21F4614	1N128	D	50	3	25	10@ —10V	.48	.38	.30
21F4615	1N191	D	90	5	......	125@ —50V	.56	.44	.35
20F4603	1N192	D	75	5	50	250@ —50V	.53	.41	.33
20F4581	1N198	D	105	4	25	50@ —50V	.51	.40	.32
21F4620	1N198A	D	105	4	25	50@ —50V	.51	.40	.32
20F4504	1N198B	D	105	5	15	50@ —50V	1.03	.80	.64
21F4579	1N294	D	70	5	25	800@ —50V	.34	.26	.21
21F4624	1N295	D	50	......	......	180@ —10V	.35	.27	.23
21F4580	1N297	D	100	3.5	25	100@ —50V	.70	.55	.44
21F4581	1N298	E	85	30@+.2V		250@ —40V	.88	.65	.52
21FX4899	1N497	D	20	100	......	20@ —20V	.67	.52	.42
21FX4900	1N498	D	50	100	......	25@ —40V	.50	.39	.31
21FX4901	1N632	D	90	7	......	120@ —60V	.72	.56	.45
21FX4902	1N633	D	120	150	......	180@ —90V	1.46	1.17	.94
21FX4903	1N805	D	50	3	......	100@ —10V	.34	.26	.22
20F4584	1N933	D	100	4	17	250@ —50V	1.12	.85	.70
21FX4904	1N3125	D	55	5(@+.5V)		100@ —40V	.80	.63	.50
20F4612	D1820	D	25	10(@+1.3V)		25@ —15V	.80	.63	.50

GERMANIUM GOLD BONDED DIODES

Absolute Maximum Ratings (25°C)

20F4601	1N99	D	......	10	......	5@ —5V	.63	.49	.39
21F4577	1N270	D	100	200	......	100@ —50V	.50	.39	.31
21F4578	1N276	D	100	40	......	100@ —50V	.43	.34	.27
21FX4847	1N277	D	125	100	......	250@ —50V	.59	.46	.37
21F4622	1N279	D	35	100	......	200@ —20V	.58	.45	.36
20F4582	1N281	D	75	100	......	500@ —50V	.51	.40	.32
21F4832	1N283	D	25	200	......	20@ —10V	.51	.40	.32
20F4609	1N500	D	80	100	......	40@ —60V	.93	.73	.58
21FX4905	1N631	D	90	......	......	500@ —5V	.80	.63	.50
21FX4836	1N695	D	25	100	......	2@ —10V	1.50	1.20	1.00
21FX4906	1N770	D	30	15(@—.5V)		40@ —10V	.75	.52	.42
21FX4907	1N949	D	60	10(@.4V)		100@ —50V	.70	.55	.44
21FX4908	1N995	D	15	......	......	10@ —6V	1.12	.88	.70

SILICON HIGH SPEED COMPUTER DIODES

Absolute Maximum Ratings (25°C)

20F4610	1N643A	D	200	100	1.0@-100V	2.64	2.06	1.65
21FX4754	D4103	D	4	10(@+.58V)	200@-4V	6.15	4.85	4.40
21FX4929	D4109	D	5	10(@+.58V)	200@-5V	9.25	7.25	6.60
21FX4930	D4121	D	4	40(@+1.5V)	200@-4V	9.25	6.25	4.50

MULTIPLE JUNCTION SILICON PLANAR DIODES

Absolute Maximum Ratings (25°C)

Stk. No.	Type	Fig.	PIV	Ifwd (ma) @ 1 volt	C @ 1mc uuf	Rec. Time nsec	No. of Jctns.	1-9	10-99
21FX4935	M0001	M	40	100	4.5	3.0	2	6.75	5.90
21FX4936	M0002	M	40	100	4.5	3.0	3	10.00	8.75
21FX4937	M0003	M	50	75	3.5	3.0	2	7.50	6.55
21FX4938	M0004	M	50	75	3.5	3.0	3	11.70	10.20
21FX4939	M0005	M	100	50	2.5	3.0	2	8.00	7.00
21FX4940	M0006	M	100	50	2.5	3.0	3	12.40	10.80
21FX4941	M0010	M	40	50	4.5	3.0	4	14.90	13.00
21FX4942	M0011	M	50	75	3.5	3.0	4	17.60	15.40
21FX4943	M0012	M	100	50	2.5	3.0	4	19.00	16.60

HIGH SPEED SILICON MESA DIODES

Absolute Maximum Ratings (25°C). *VR = 0 volts

Stk. No.	Type	Fig.	Ifwd @ 1V (ma)	Reverse Current ua max.	C @ 100kc VR=6V uufd	1-99	100-999	1000-4999
20F4527	1N903	D	10	0.1@—40V	1.0	2.85	2.28	1.70
20F4528	1N904	D	10	0.1@—30V	1.0	2.65	2.15	1.60
20F4529	1N905	D	10	0.1@—20V	1.0	2.50	2.00	1.50
20F4530	1N906	D	10	0.1@—20V	2.5	2.20	1.75	1.32
20F4531	1N907	D	10	0.1@—30V	2.5	2.50	2.00	1.50
20F4532	1N908	D	10	0.1@—40V	2.5	2.85	2.28	1.70
21FX4931	1N914	D	10	5.0@—75V	4.0*	3.00	2.40	1.80
21FX4932	1N914A	D	20	5.0@—75V	4.0*	3.25	2.55	1.96
21FX4933	1N916	D	10	5.0@—75V	2.0*	4.06	3.24	2.43
21FX4934	1N916A	D	20	5.0@—75V	2.0*	4.40	3.53	2.64

SILICON JUNCTION DIODES

Absolute Maximum Ratings (25°C)

Stk. No.	Type	Fig.	PIV	Ifwd (ma) @ 1 volt Min Max	Reverse Current ua max.	1-99	100-999	1000-4999
21FX4848	1N456	D	30	40	.025@-25V	.37	.29	.23
21FX4849	1N456A	D	30	100	.025@-25V	.37	.29	.23
21FX4630	1N457	D	70	20	.025@-60V	.45	.36	.29
21FX4850	1N457A	D	70	100	.025@-60V	.45	.36	.29
21FX4631	1N458	D	150	7	.025@-125V	.51	.40	.32
21FX4851	1N458A	D	150	100	.025@-125V	.51	.40	.32
21FX4632	1N459	D	200	3	.025@-175V	.66	.51	.41
20F4505	1N459A	D	200	100	.025@-175V	.66	.51	.41
21F4763	1N461	D	30	15	.5@-25V	.35	.28	.22
20F4506	1N461A	D	30	100	.5@-25V	.35	.28	.22
20F4507	1N462	D	70	5	.5@-60V	.38	.30	.24
20F4508	1N462A	D	70	100	.5@-60V	.38	.30	.24
20F4509	1N463	D	200	1	.5@-175V	.46	.36	.29
20F4510	1N463A	D	200	100	.5@-175V	.46	.36	.29
21FX4910	1N464	D	150	3	.5@-125V	.45	.35	.28
20F4605	1N464A	D	150	100	.5@-125V	.45	.35	.28
21FX4835	1N482	D	40	100@1.1V	.25@-30V	.67	.52	.42
20F4583	1N482A	D	40	100	.025@-30V	.67	.52	.42
20F4606	1N482B	D	40	100	.025@-30V	.67	.52	.42
21FX4911	1N483	D	80	100@1.1V	.25@-60V	.69	.54	.43
20F4607	1N483A	D	80	100	.025@-60V	.69	.54	.43
21FX4912	1N483B	D	80	100	.025@-60V	.69	.54	.43
21FX4913	1N484	D	150	100@1.1V	.25@-125V	.80	.62	.50
21FX4914	1N484A	D	150	100	.025@-125V	.80	.62	.50
21FX4915	1N484B	D	150	100	.025@-125V	.80	.62	.50
21FX4916	1N485	D	200	100@1.1V	.25@-175V	1.06	.82	.66
21FX4917	1N485A	D	200	100	.025@-175V	1.06	.82	.66
21FX4918	1N485B	D	200	100	.025@-175V	1.06	.82	.66
21FX4919	1N486	D	250	100@1.1V	.25@-225V	1.79	1.40	1.12
20F4608	1N486A	D	250	100	.05@-225V	1.79	1.40	1.12
21FX4920	1N486B	D	225	100	.05@-225V	1.79	1.40	1.12
21FX4921	1N487	D	330	100@1.1V	.25@-300V	3.20	2.50	2.00
21FX4922	1N487A	D	330	100	.1@-300V	3.20	2.50	2.00
21FX4923	1N488	D	420	100@1.1V	.25@-380V	3.65	2.85	2.28
21FX4924	1N488A	D	420	100	.1@-380V	3.65	2.85	2.28
20F4511	1N625	D		4@1.5V	20@-30V	.59	.46	.37
20F4512	1N626	D		4@1.5V	100@-50V	.63	.50	.40
20F4513	1N627	D		4@1.5V	100@-100V	.74	.57	.46
20F4514	1N628	D		4@1.5V	100@-150V	.88	.69	.55
20F4515	1N629	D		4@1.5V	100@-200V	.96	.75	.60
21FX4925	1N658	D		100	.05	3.64	2.73	2.46
21FX4926	1N659	D		6	5@-60V	2.02	1.58	1.26
21FX4927	1N816	D	6	100	100@-6V	.56	.44	.35

MICROWAVE TUNNEL DIODES

Stk. No.	Type	Fig.	Min. Osc. Freq.	C at Vf=350mv uufd	Ip / Iv	1-9	10-99	100-999
21FX4947	D4168	F	2 KMC	8.0	5	17.50	15.00	13.75
21FX4948	D4168A	F	4 KMC	4.0	5	30.00	25.30	23.60
21FX4949	D4168B	F	6 KMC	2.0	5	55.00	47.20	43.25
21FX4950	D4168C	F	8 KMC	1.3	5	90.00	77.20	70.70
21FX4951	D4168D	F	10 KMC	0.9	5	125.00	107.00	98.25

MICROWAVE DIODES

Stk. No.	Type	Fig.	Description	Freq. Band	1-99	100-999	1000-up
21FX4952	1N21A	A	Mixer	S	.68	.54	.49
21F442	1N21B	A	Mixer	S	.68	.54	.49
21F443	1N21C	A	Mixer	S	1.02	.81	.73
21F4645	1N21D	A	Mixer	S	3.41	2.72	....
21F4647	1N21E	A	Mixer	S	4.48	3.52	....
21FX4953	1N23A	A	Mixer	X	.67	.54	.49
21F447	1N23B	A	Mixer	X	.67	.54	.49
21F4650	1N23C	A	Mixer	X	1.02	.81	.73
21F4653	1N23D	A	Mixer	X	3.41	2.72	....
21F4654	1N23E	A	Mixer	X	4.45	3.50	....
20F4519	1N23F	A	Mixer	X	14.70	11.76	....
21F448	1N25	A	Mixer	L	3.53	2.74	....
21FX4954	1N25A	A	Mixer	L	8.48	6.60	....
21F449	1N26	C	Mixer	K	6.50	5.10	....
21FX4753	1N26A	C	Mixer	K	7.75	6.05	....
20F4520	1N26B	C	Mixer	K	27.25	21.75	....
20F4521	1N26C	C	Mixer	K	31.15	25.50	....

Cont. on following page.

SYLVANIA

MICROWAVE DIODES

Stk. No.	Type	Fig.	Description	Freq. Band	1-99	100-999	1000-up
21FX5942	1N21A	C	Mixer	S	.68	.54	.49
21F442	1N21B	C	Mixer	S	.68	.54	.49
21F443	1N21C	C	Mixer	S	1.02	.81	.73
21F4645	1N21D	C	Mixer	S	3.41	2.72	....
21F4647	1N21E	C	Mixer	S	4.48	3.52	....
21FX4953	1N23A	C	Mixer	X	.67	.54	.49
21F447	1N23B	C	Mixer	X	.67	.54	.49
21F4650	1N23C	C	Mixer	X	1.02	.81	.73
21F4653	1N23D	C	Mixer	X	3.41	2.72	....
21F4654	1N23E	C	Mixer	X	4.45	3.50	....
20F4519	1N23F	C	Mixer	X	14.70	11.76	....
21F448	1N25	C	Mixer	L	3.53	2.74	....
21FX4954	1N25A	C	Mixer	L	8.48	6.80	....
21F449	1N26	D	Mixer	K	6.50	5.10	....
21FX4753	1N26A	D	Mixer	K	7.75	6.05	....
20F4520	1N26B	D	Mixer	K	27.25	21.75	....
20F4521	1N26C	D	Mixer	K	31.15	25.50	....
21FX4738	1N31A	D	Video Detector	X	14.70	11.75	....
21FX4955	1N53	D	Mixer	Ka	23.20	18.60	....
21FX4741	1N53B	D	Mixer	Ka	29.65	25.90	....
20F4523	1N53C	D	Mixer	Ka	46.79	37.45	....
20F4524	1N53D	D	Mixer	Ka	73.50	57.80	....
21F4575	1N76A	D	Video Detector	X	2.60	2.04	....
20F4525	1N78	D	Mixer	Ka	6.50	5.10	....
21F4655	1N78A	D	Mixer	Ka	8.60	6.80	....
21FX4743	1N78C	D	Mixer	Ka	49.00	39.20	....
21FX4744	1N78D	D	Mixer	Ka	58.80	47.05	....
21FX4745	1N358	D	Video Detector	L-X	19.85	15.90	....
20F4526	1N358A	D	Video Detector	L-X	60.40	48.30	....
21FX4746	1N369	D	Video Detector	S-X	27.35	21.85	....

MICROWAVE DIODES (Cont.)

Stk. No.	Type	Fig.	Description	Freq. Band	1-99	100-999	1000-up
21FX4956	1N415B	C	Mixer Dbl Ended	X	.81	.64	....
21FX4833	1N415E	C	Mixer Dbl Ended	X	5.60	4.40	....
21FX4957	1N416B	C	Mixer Dbl Ended	S	.81	.64	....
21FX4958	1N416C	C	Mixer Dbl Ended	S	1.18	.92	....
21FX4959	1N416E	C	Mixer Dbl Ended	S	5.50	4.50	....
21FX4960	1N630	D	Video Detector	L-X	35.70	28.50	....
21FX4747	1N830	E	Video Detector	100mc	3.22	2.52	....
21FX4961	1N830A	E	Video Detector	100mc	3.85	3.02	....
21FX4962	1N831	E	Mixer	S	6.85	5.40	....
21FX4963	1N832	E	Mixer	S	8.90	7.00	....
21FX4748	1N1132	D	Mixer	S-X	43.05	33.85	....

SILICON BULLET RECTIFIERS

Absolute Maximum Ratings (25°C). *Recurrent

Stk. No.	Type	Fig.	Peak *Ifwd (amps)	PIV	DC Output (ma) 25°C	DC Output (ma) 100°C	1-99	100-999	1000-4999
21FX4737	1N2069	H	6	200	750	500	.76	.51	.41
21FX4735	1N2070	H	6	400	750	500	.96	.64	.50
21FX4736	1N2071	H	6	600	750	500	1.49	.99	.61
20F4516	1N2069A	H	6	200	750	500	.76	.51	.41
20F4517	1N2070A	H	6	400	750	500	.96	.64	.50
20F4518	1N2071A	H	6	600	750	500	1.49	.99	.61
21FX4944	1N2482	H	6	200	750		.63	.41	.37
21FX4945	1N2483	H	6	400	750		.93	.62	.50
21FX4946	1N2484	H	6	600	750		1.19	.79	.63
21FX4774	SR1692	H	2	100	600	250	.59	.38	.34
21FX4775	SR1693	H	2	200	600	250	.63	.41	.37
21FX4776	SR1694	H	2	300	600	250	.78	.51	.46
21FX4777	SR1695	H	2	400	600	250	.93	.62	.56

AMPEREX

POINT CONTACT GERMANIUM DIODES

Stock No.	Type	Description	PIV	Min. Fwd. Current Ma@V	1-99	100-999
21FX2628	1N34	Gen. Purpose	75	5@1	.39	.31
21FX2629	1N34A	Gen. Purpose	75	5@1	.40	.32
21FX2630	1N60	Video Det.	30	**	.43	.34
21FX2631	1N67A*	Hi-Back Res.	100	4@1	.51	.34
21FX2632	1N87A*	Video Det.	30	.1@.25V	.31	.23
21FX2633	1N191*	Computer	90	5@1	.60	.40
21FX2634	1N295	Video Det.	50		.35	.27
21FX2635	1N476	Hi-Peak Volt.	115	3@1	.42	.28
21FX2636	1N478	Hi-Peak Volt.	115	5@1	.45	.30
21FX2637	1N541	A.M. Det.	45	1.5@1	.40	.30
21FX2638	1N542	F.M. Detct. Matched Pair of 1N541			.80	.60
21FX2639	1N617*	Hi-Peak Volt.	115	3@1	.38	.25
21FX2640	1N618*	Hi-Peak Volt.	115	5@1	.42	.28

* Sub Miniature Diode.

** 1.55V output in test circuit 150K to —10V.

GOLD-BONDED GERMANIUM COMPUTER DIODES

Stock No.	Type	Description	PIV	Min. Fwd. Current Ma@V	1-99	100-999
21FX2653	1N270*	Hi-Fwd. Con.	80	200@1	.60	.40
21FX2654	1N277*	Hi-Voltage	100	100@1	.60	.40
21FX2641	1N698*	Fast Rec.	25	30@.54	.45	.30
21FX2655	1N3121*	Fast Rec.	50	150@.74	.60	.40
21FX2656	1N3122*	Hi-Current	20	10@.34 **300@.78	.53	.35
21FX2657	1N3483*	Very Fast Rec.	8	10@.5	1.65	1.10
21FX2658	1N3484*	Hi-Fwd Cond.	75	250@.7	.60	.40
21FX2642	OA5	Hi-Cur. Sw. Com.	100	200@1	.85	.75
21FX2643	OA9	Hi-Cur. Sw. Com.	25n	90@.4	.95	.85

* Sub Miniature Diode. **Measured Under Pulse Conditions.

SILICON REFERENCE DIODES FOR LOW CURRENT STABILIZER

Stock No.	Type	Zener Volt'g Volts	Zener Cur'nt Ma	△Vz/△T	1-99	100-999
21FX2644	OAZ200	4.7	50	-2	4.10	2.73
21FX2645	OAZ201	5.1	50	-1.8	3.50	2.34
21FX2646	OAZ202	5.6	50	-1.5	2.55	1.70
21FX2647	OAZ203	6.2	50	1	2.85	1.90
21FX2648	OAZ204	6.8	50	3	2.55	1.70
21FX2649	OAZ205	7.5	50	4	2.55	1.70
21FX2650	OAZ206	8.2	50	5.5	2.55	1.70
21FX2651	OAZ207	9.1	50	6.5	3.50	2.34

SEMICONDUCTOR RECTIFIER

Stk. No.	Type	PIV	IC Amps	1-99	100-up
21FX2675	BY100	800	0.5	1.35	.89

PNP GERMANIUM TRANSISTORS

Stock No.	Type	Pc mw	Ic ma	VCB V	hfe	1-99	100-999
21FX2600	2N279	125	50	30	30	.70	.47
21FX2601	2N280	125	50	30	50	.75	.50
21FX2602	2N284	166	250	32	45	1.40	.95
21FX2661	2N1066*	120	—10	—40	60	4.10	2.72
21FX2662	2N1224*	120	—10	—40	60	1.50	1.00
21FX2663	2N1225*	120	—10	—40	60	1.60	1.06
21FX2664	2N1395*	120	—10	—40	90	1.70	1.12
21FX2665	2N1396*	120	—10	—40	90	2.10	1.40
21FX2666	2N1397*	120	—10	—40	90	3.10	2.06
21FX2610	2N1515	83	—10	—20	100	1.26	.84
21FX2611	2N1516	83	—10	—20	100	1.65	1.10
21FX2612	2N1517	83	—10	—20	100	1.84	1.23
21FX2606	2N1666/ OC28	30W	6A	60/80	32	4.80	3.75
21FX2607	2N1667/ OC29	30W	6A	32/48/ 60	90	4.60	3.50
21FX2608	2N1668/ OC35	30W	6A	32/48/ 60	50	5.70	4.30
21FX2667	2N2084*	125	—10	—40	100	2.10	1.39
21FX2668	2N2089*	83	—10	—20	150	1.00	.67
21FX2669	2N2090*	83	—10	—20	150	1.00	.67
21FX2670	2N2091*	83	—10	—20	150	1.00	.67
21FX2671	2N2092*	100	—10	—25	150	.83	.55
21FX2672	2N2093*	100	—10	—25	150	.83	.55
21FX2603	OC22	16W	1A	32	150	3.85	2.56
21FX2604	OC23	16W	1A	40	150	4.20	2.80
21FX2605	OC24	16W	1A	32	150	4.30	2.85
21FX2673	2N1226*	120	—10	—60	60	2.00	1.35
21F2609	2N1669/ OC36	30W	6A	32/60/ 80	70	1.68	1.12
21FX2652	PADT40*	94	50	....	50	1.68	1.12
21FX2676	PADT50	16.5W	750	....		5.00	3.34
21FX2677	PADT60	86	25	35	......	8.00	5.40
21FX2674	2N987	165	—10	—40	......	2.25	1.50
21FX2678	2N2428	165	—100	—32	100	.62	.42
21FX2679	2N2429	165	....	—32	130	.64	.43
21FX2680	2N2430	550	—100	+32	210	.72	.48
21FX2681	2N2431	....	100	—32	130	.75	.50
21FX2682	AC/132	....	—500	....	175	1.55	1.03

* Manufactured by Post Alloy Diffusion Process. ‡ fmax=700.

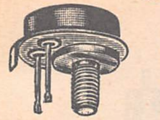
NPN GERMANIUM TRANSISTORS

Stock No.	Type	Po mw	Ic ma	VCB V	hfe	1-99	100-999
21FX2623	OC139	100	250	20	45	4.20	3.35
21FX2624	OC140	100	250	20	75	4.90	3.95
21FX2625	OC141	100	250	20	150	5.40	4.35

PNP SILICON TRANSISTORS

Stock No.	Type	Pc mw	Ic ma	VCB V	hfe	1-99	100-999
21FX2626	BCZ10	250	50	25	20	4.05	2.70
21FX2627	BCZ11	250	50	25	30	4.60	3.08

SILICON POWER TRANSISTORS



2N1015, 2N1016 and WX115 series are NPN fused silicon power transistors. Max. collector current: 7.5 amps. for types 2N1015/16. Min. guaranteed DC gain of 10 at rated collector current respectively. Transistors have low saturation resistance, high voltage, and high temp. operating capability. Hermetically sealed in a welded case. Designed for high power switching and amplifier applications. *Tested at VBE —1-.5 V.

Stk. No.	Type	*VCE	Tj	D.C. Cur. Gain	Sat. Resis.	1-24	25-99
21FX9917	2N1015	30V	150°C	10 Min. VCE=4V Ic=2A	.75 Ohms Max.	25.00	21.00
21FX9918	2N1015A	60V				31.00	25.00
21FX9919	2N1015B	100V				48.00	39.00
21FX9920	2N1015C	150V				58.00	48.50
21FX9921	2N1015D	200V				70.00	58.50
21FX9922	2N1015E					110.00	91.75
21FX9924	2N1016	30V	150°C	10 Min. VCE=4V Ic=5A	.5 Ohms Max.	40.00	33.50
21FX9925	2N1016A	60V				57.00	46.00
21FX9926	2N1016B	100V				76.00	59.00
21FX9927	2N1016C	150V				90.00	75.25
21FX9928	2N1016D	200V				115.00	96.00
21FX9989	2N1016E					150.00	125.00
1F9971	2N1809	50V	150°C	10 @ Ic=10A VCE=4V	.2 Ohms Max.	68.00	57.00
21F9972	2N1810	100V				116.00	97.00
21F9973	2N1811	150V				136.00	114.00
21F9974	2N1812	200V				152.00	127.00
21F9975	2N1816	50V	150°C	10 @ Ic=15A	.170 Ohms Max.	90.00	75.00
21F9976	2N1817	100V				154.00	129.00
21F9977	2N1818	150V				180.00	150.00
21F9978	2N1823	50V	150°C	10 @ Ic=20A	.150 Max.	136.00	114.00
21F9979	2N1824	100V				190.00	159.00
21FX9990	2N1825					224.00	187.00
21FX9991	2N1826					252.00	210.00

TRINISTOR® CONTROLLED-RECTIFIERS

Average rectified forward current 70 amperes half wave

Stk. No.	Type	VBO	1-24	25-99
21FX9954	2N1910	50	40.00	30.00
21FX9955	2N1911	100	50.00	38.00
21FX9956	2N1912	150	65.00	50.00
21FX9957	2N1913	200	70.00	54.00
21FX9958	2N1914	250	88.00	67.00
21FX9959	2N1915	300	105.00	80.00
21FX9980	2N1916	350	145.00	111.00

Average rectified forward current 16 amperes half wave

Stk. No.	Type	VBO	1-99	100-999
21FX9981	2N681	30	13.10	8.75
21FX9982	2N682	60	13.90	9.25
21FX9983	2N683	120	15.75	10.50
21FX9984	2N684	180	18.75	12.50
21FX9985	2N685	240	22.50	15.00
21FX9986	2N686	300	27.75	18.50
21FX9987	2N687	360	33.00	22.00

RECTIFIERS—MEDIUM POWER, SILICON

6 amp. to 35 amp.

Stock No.	Type	P.R.V.	Max. IDC Resistive load	1-99	100-999
21FX9846	1N1341*	50V	6A @ 150°C case	2.63	1.75
21FX9847	1N1342*	100V		3.00	2.00
21FX9848	1N1343*	150V		3.75	2.50
21FX9849	1N1344*	200V		4.50	3.05
21FX9850	1N1345*	300V		6.15	4.10
21FX9851	1N1346*	400V		8.25	5.75
21FX9852	1N1347*	500V		9.75	7.60
21FX9853	1N1348*	600V		11.75	8.80
21FX9854	1N1199*	50V	12A @ 150°C case	2.85	1.90
21FX9855	1N1200*	100V		3.30	2.20
21FX9856	1N1201*	150V		4.35	3.00
21FX9857	1N1202*	200V		5.15	3.90
21FX9858	1N1203*	300V		7.30	5.70
21FX9859	1N1204*	400V		10.35	6.80
21FX9860	1N1205*	500V		13.90	9.25
21FX9861	1N1206*	600V		17.25	11.50
21FX9862	1N1191†	50V	18A @ 140°C case	3.50	2.35
21FX9863	1N1192†	100V		4.25	2.85
21FX9864	1N1193†	150V		5.10	3.40
21FX9865	1N1194†	200V		6.10	4.50
21FX9866	1N1195†	300V		8.75	6.20
21FX9867	1N1196†	400V		12.00	8.00
21FX9868	1N1197†	500V		16.50	11.00
21FX9869	1N1198†	600V		20.00	13.35
21FX9870	1N1183†	50V	35A @ 140°C case	4.20	3.00
21FX9871	1N1184†	100V		5.00	3.40
21FX9872	1N1185†	150V		6.00	4.25
21FX9873	1N1186†	200V		7.10	4.90
21FX9874	1N1187†	300V		9.90	6.80
21FX9875	1N1188†	400V		13.95	9.20
21FX9876	1N1189†	500V		19.25	13.70
21FX9877	1N1190†	600V		25.00	16.25

* have A,R, and AR versions. † have R versions available.

RECTIFIERS—LOW POWER, SILICON

½ amp. to 1.6 amp.

Stock No.	Type	PRV	Max. IDC Resistive load	1-99	100-999
21FX9800	1N1217	50V	1A @ 30°C amb. axial leads top hat	.59	.42
21FX9801	1N1218	100V		.67	.48
21FX9802	1N1219	150V		.77	.55
21FX9803	1N1220	200V		.86	.62
21FX9804	1N1221	300V		1.13	.82
21FX9805	1N1222	400V		1.47	1.00
21FX9806	1N1223	500V		1.93	1.30
21FX9807	1N1224	600V		2.48	1.65
21FX9808	1N1225	700V		3.30	2.20
21FX9809	1N1226	800V		4.13	2.75

Stock No.	Type	PRV	Max. IDC Resistive Load	1-49	50-99	100-999
21FX9811	1N1217A	50V	1A @ 30°C amb. axial leads top hat	.90	.73	.56
21FX9812	1N1218A	100V		1.06	.86	.66
21FX9813	1N1219A	150V		1.26	1.03	.79
21FX9814	1N1220A	200V		1.52	1.24	.95
21FX9815	1N1221A	300V		2.14	1.75	1.34
21FX9816	1N1222A	400V		3.02	2.46	1.89
21FX9817	1N1223A	500V		4.24	3.46	2.65
21FX9818	1N1224A	600V		6.00	4.89	3.75

Stock No.	Type	PRV	Max. IDC Resistive Load	1-99	100-999
21FX9819	1N1227	50V	1.6A @ 140°C case axial lead top with stud base	1.25	.78
21FX9820	1N1228	100V		1.40	.87
21FX9821	1N1229	150V		1.55	.97
21FX9822	1N1230	200V		1.75	1.09
21FX9823	1N1231	300V		2.20	1.36
21FX9824	1N1232	400V		2.60	1.68
21FX9825	1N1233	500V		3.25	2.08
21FX9826	1N1234	600V		4.00	2.58
21FX9827	1N1235	700V		5.50	3.40
21FX9828	1N1236	800V		7.00	4.25
21FX9829	1N1444	1000V		10.00	6.80

Stock No.	Type	PRV	Max. IDC Resistive Load	1-49	50-99	100-999
21FX9830	1N1227A	50V	1.6A @ 140°C amb. axial lead top with stud base	1.90	1.55	1.19
21FX9831	1N1228A	100V		2.16	1.76	1.35
21FX9832	1N1229A	150V		2.46	2.01	1.54
21FX9833	1N1230A	200V		2.80	2.28	1.75
21FX9834	1N1231A	300V		3.66	2.98	2.29
21FX9835	1N1232A	400V		4.76	3.88	2.98
21FX9836	1N1233A	500V		6.20	5.05	3.88
21FX9837	1N1234A	600V		8.00	6.52	5.00

RECTIFIERS—HIGH POWER, SILICON

70 amp. to 240 amp.

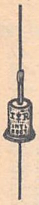
Stock No.	Type	P.R.V.	Max. IDC Resistive load	1-24	25-99
21FX9878	1N1396	50	70A @ 150°C case	8.25	6.70
21FX9879	1N1397	100		10.00	8.15
21FX9880	1N1398	150		11.50	9.35
21FX9881	1N1399	200		13.60	11.10
21FX9882	1N1400	300		17.75	14.75
21FX9883	1N1401	400		24.25	19.75
21FX9884	1N1402	500		29.00	23.60
21FX9893	1N1660	50	160A @ 125°C case	12.00	9.80
21FX9894	1N1661	100		14.60	11.90
21FX9895	1N1662	150		17.80	14.50
21FX9896	1N1663	200		21.80	17.75
21FX9897	1N1664	300		32.00	26.10
21FX9898	1N1665	400		46.30	37.75
21FX9899	1N1666	500		67.00	54.60
21FX9907	1N1670	50	240A @ 125°C case	19.00	15.50
21FX9908	1N1671	100		22.80	18.60
21FX9909	1N1672	150		26.30	21.45
21FX9910	1N1673	200		32.30	26.30
21FX9911	1N1674	300		48.00	39.10
21FX9912	1N1675	400		62.80	51.20
21FX9913	1N1679	500		82.20	67.00
21FX9962	1N3161-439A	50	240A @ 125°C case	14.80	12.40
21FX9963	1N3162-439B	100		17.75	14.90
21FX9964	1N3163-439C	150		20.95	17.80
21FX9965	1N3164-439D	200		24.75	20.80
21FX9966	1N3165-439E	250		28.20	23.70
21FX9967	1N3166-439F	300		32.20	27.10
21FX9968	1N3167-439G	350		41.10	34.60
21FX9914	1N3168-439H	400		47.20	39.65
21FX9915	1N3169-439K	500		57.20	48.00
21FX9916	1N3170-439M	600		70.00	58.70

POWER TRANSISTORS

Stk. No.	Type	VCE	Tj	DC Cur. Gain	1-24	25-99
21FX9992	2N2226	50	150°C	100@ Ic=10A	66.00	55.00
21FX9993	2N2227	100			104.00	87.00
21FX9994	2N2228	150			126.00	105.00
21FX9995	2N2230	50	150°C	400@ Ic=10A	122.00	104.00
21FX9996	2N2231	100			176.00	147.00
21FX9997	2N2232	150			222.00	185.00

INT'L. RECTIFIER SEMICONDUCTORS

GENERAL PURPOSE SILICON RECTIFIERS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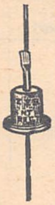
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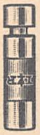
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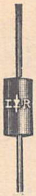
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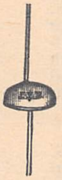
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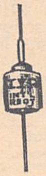
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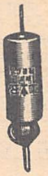
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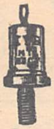
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AXIAL LEAD TOP HAT RECTIFIERS

Oper. Temp. Range: —65 to 150°C. Max. DC output (@ 100°C) and reverse current rating (@ 25°C) are full cycle average values. DO-3 case.

Stock No.	Type	Fig.	PRV	Maximum Amps DC	Maximum I. ma	1-99	100-999
21F920	1N599	B	50	.300	.025	.68	.45
21F921	1N600	B	100	.300	.025	.83	.55
21F922	1N601	B	150	.300	.025	.87	.58
21F923	1N602	B	200	.300	.025	.95	.63
21F924	1N603	B	300	.300	.025	1.22	.81
21F925	1N604	B	400	.300	.025	1.61	1.07
21F926	1N605	B	500	.300	.025	1.68	1.12
21FX1346	1N606	B	600	.300	.025	2.00	1.33

AXIAL LEAD TOP HAT RECTIFIERS

Oper. Temp. Range: —65 to 150°C. Max. DC output (FCA) (@ 50°C). Reverse current rating (DC) (@ 25°C). DO-3 case.

20F8185	1N440	B	100	.300	0.30	.83	.65
20F8186	1N441	B	200	.300	0.75	.86	.57
20F8187	1N442	B	300	.300	1.00	.99	.66
20F8188	1N443	B	400	.300	1.50	1.24	.83
20F8189	1N444	B	500	.300	1.75	1.84	.90
20F8190	1N440B	B	100	.750	.0003	.83	.65
20F8191	1N441B	B	200	.750	.0007	.86	.57
20F8192	1N442B	B	300	.750	.001	.99	.66
20F8193	1N443B	B	400	.750	.0015	1.24	.83
20F8194	1N444B	B	500	.650	.00175	1.84	.90

AXIAL LEAD TOP HAT SILICON RECTIFIERS

Oper. Temp. Range: —65 to 115°C. Max. DC output (@ 50°C) and reverse current rating (@ 100°C) are full cycle average values. DO-3 case.

20F8195	1N1692	B	100	.600	0.5	.62	.41
20F8196	1N1693	B	200	.600	0.5	.72	.48
20F8197	1N1694	B	300	.600	0.5	.90	.60
20F8198	1N1695	B	400	.600	0.5	1.01	.67

TOP HAT

Hermetically sealed. Rated at 50°C.

21FX1308	SD91	B	100	.600	400	.59	.39
21FX1309	SD92	B	200	.600	400	.68	.46
21FX1310	SD93	B	300	.600	400	.86	.57
21FX1311	SD94	B	400	.600	400	.96	.64
21FX1312	SD95	B	500	.600	400	1.06	.71
23F600	SD91A	B	100	.750	600	.62	.41
23F601	SD92A	B	200	.750	600	.72	.48
23F602	SD93A	B	300	.750	600	.90	.60
23F603	SD94A	B	400	.750	600	1.01	.67
23F604	SD95A	B	500	.750	600	1.12	.75

AXIAL LEAD TOP HAT SILICON RECTIFIERS

Oper. Temp. Range: —65 to 175°C Max. DC output (@ 135°C) and reverse current (peak) rating (@ 25°C) are full cycle average values. DO-3 case.

20F1318	10B1	B	100	1.3A	0.05	.86	.66
20F1319	10B2	B	200	1.3A	0.05	1.24	.95
20F1321	10B4	B	400	1.3A	0.05	2.46	1.89
20F8199	10B8	B	800	1.3A	0.05	7.50	5.00
20F8200	10B10	B	1000	1.3A	0.05	9.00	6.00

MINIATURE SILICON RECTIFIERS

Oper. Temp. Range: —20 to +130°C. Max. DC output (@ 25°C) and reverse current rating (@ 100°C) are full cycle average values. Case dimensions are 0.375"x0.200" dia. approx.

STANDARD TYPE

20F1327	5A2	D	200	1.0	0.2	.73	.58
20F8201	5A3	D	300	1.0	0.2	.79	.69
20F1328	5A4	D	400	1.0	0.2	.88	.80
20F1329	5A5	D	500	1.0	0.2	1.00	.90
20F1330	5A6	D	600	1.0	0.2	1.15	.87
20F8202	5A8	D	800	1.0	0.2	1.85	1.60
20F8203	5A10	D	1000	1.0	0.2	2.25	2.10

JEDEC TYPE

Stock No.	Type	Fig.	PRV	Maximum DC Amps	Maximum I. ma	1-999
20F8204	1N2069A	D	200	.750	0.2	.51
20F8205	1N2070A	D	400	.750	0.2	.62
20F8206	1N2071A	D	600	.750	0.2	.80

TV-RADIO-AUDIO SILICON RECTIFIERS

Hermetically sealed "Top Hat," rated at 650 MA. Kits come with Adapters to convert to snap-in holders. 400V PIV.

Stk. No.	Type	Fig.	1-9	10-99	100-199
21F938	SD500-91	B	1.05	.97	.70
20F1300	SD500-92	Kit of 2 w/conv. hrdw....................2.30 Net			
20F1301	SD500-95	Kit of 5 w/conv. hrdw....................5.50 Net			

Miniature all insulated, diffused junction type. Rated at 750 MA with 50 Amp Surge. 400V PIV.

Stk. No.	Type	Fig.	NET
20F1328	5A4-91	D	1.35

EPOXY ENCAPSULATED TYPES

Stock No.	Type	Fig.	PIV	DC MA	1-9	10-99	1-99	100-999
20F1309	2E4-91	E	400	200	.70	Net	....	....
21FX1345	5E4-91	E	400	350	.90	.75	....	....
20F1310	5E5	E	500	350	....	....	1.15	.90
20F1311	5E6	E	600	350	....	....	1.20	.99

INDUSTRIAL TYPE SILICON RECTIFIERS AND DIODES

Miniature, hermetically sealed types, case size: 0.250" Diam. x 0.275" long. All ratings for 50°C.

Stock No.	Type	Fig.	PRV	Max. DC, MA Resist.	Max. DC, MA Cap.	1-99	100-999
20F1312	1N1701	A	50	300	200	.75	.58
20F1313	1N1702	A	100	300	200	.87	.68
20F1314	1N1703	A	200	300	200	1.01	.78
20F1316	1N1705	A	400	300	200	1.57	1.20
20F1317	1N1706	A	500	300	200	2.59	1.98

HI VOLTAGE SILICON RECTIFIERS

Hermetically sealed, pigtail construction. High efficiency ratings and excellent reliability at —55 to 150°C ambient. Ratings are 75°C into resistive load.

Stock No.	Type	Fig.	P.I.V.	RMS	D.C. Output MA	1-99
23F605	1N596	F	600	420	125	5.00
23F607	1N598	F	1000	700	125	8.50
23F608	1N1409	G	1200	840	100	8.00
23F609	1N1410	G	1500	1050	......	9.00
23F610	1N1411	G	1800	1260	......	11.00
23F611	1N1412	G	2000	1400	......	13.50
23F612	1N1413	G	2400	1680	......	15.50
21FX1342	1N1130*	H	1500	1050	300	11.20

*High temperature, stud mounted miniature type. Reverse leakage 0.1 MA. Max. forw. voltage drop 4.5V. For type 1N1130 stud is cathode.

HIGH TEMPERATURE SILICON DIODES

Hermetically sealed; operating range —65° to +165°C. Very low voltage drop and leakage. Rating shown is for 50°C. At 150°C output is 250/175 MA.

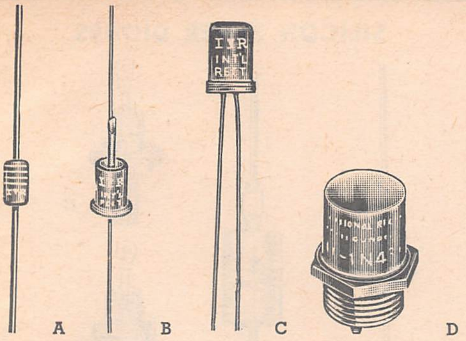
Stock No.	Type	Fig.	PRV	Max. DC, MA Resist.	Max. DC, MA Capac.	1-99	100-999
21F993	1N536	B	50	750	550	.66	.44
21F994	1N537	B	100	750	550	.74	.49
21F995	1N538	B	200	750	550	.76	.51
21F997	1N540	B	400	750	550	1.07	.71
20F1324	1N547	B	600	750	550	1.65	1.10
20F1325	1N1095	B	500	750	550	1.07	.71
20F1326	1N1096	B	600	750	550	1.65	1.10

PLUG-IN SILICON RECTIFIERS

Oper. Temp. Range: —20 to +130°C. Max. DC output (@ 100°C) and reverse current rating (@ 100°C) are full cycle average values. Case dimensions are 1"x0.250" dia. approx. These units are plug-in replacements for JEDEC types 1N446-1N449.

Stock No.	Type	Fig.	PRV	Maximum DC Amps	Maximum I. ma	1-99	100-999
20F8207	1N1082	C	200	.625	0.2	.85	.63
20F8208	1N1083	C	300	.625	0.2	1.05	.84
20F8209	1N1084	C	400	.625	0.2	1.30	.90
20F8210	5MA5	C	500	.625	0.2	1.25	.99
20F8211	5MA6	C	600	.625	0.2	1.70	1.35
20F8212	5MA8	C	800	.625	0.2	2.70	1.95
20F8213	5MA10	C	1000	.625	0.2	3.40	2.10
20F1431	43-1803	Snap-In Holder, sgl.				.12	.10
20F1432	43-1804	Snap-In Holder, dual				.25	.20
20F1433	43-1805	Snap-In Holder, quad				.90	.75

INT'L. RECTIFIER SEMICONDUCTORS



250 MW SILICON GLASS ZENER DIODES—FIG. A

Subminiature glass zener diodes provide high reliability and stability over —50°C to +150°C range. Body size: 0.265x0.110" diameter.

Stk. No.	Type	Vz@Iz Nom.Volts	Iz ma	Zz@Iz Max. Ohms	Volt Tol.	1-99	100-999
20F1307	1N702	2.6	5	60	10	2.60	2.10
20F1334	1N703	3.4	5	55	10	2.60	2.10
20F1337	1N705	4.8	5	35	10	2.60	2.10
20F1338	1N706	5.8	5	20	10	2.60	2.10
20F1339	1N707	7.1	5	10	10	2.60	2.10
20F1340	1N708	5.6	25	3.6	10	2.60	2.10
20F1341	1N709	6.2	25	4.1	10	2.60	2.10
20F1342	1N710	6.8	25	4.7	10	2.60	2.10
20F1343	1N711	7.5	25	5.3	10	2.60	2.10
20F1344	1N712	8.2	25	6	10	2.60	2.10
20F1345	1N713	9.1	25	7	10	2.60	2.10
20F1346	1N714	10.0	25	8	10	2.60	2.10
20F1347	1N715	10.5	25	9	10	2.60	2.10
20F1348	1N716	12.0	25	10	10	2.60	2.10
20F8243	1N761	4.8	10	40	10	2.60	2.10
20F8244	1N762	5.8	10	18	10	2.60	2.10
20F8245	1N763	7.1	10	7	10	2.60	2.10
20F8246	1N764	8.7	10	12	10	2.60	2.10
20F8247	1N765	10.5	5	45	10	2.60	2.10
20F8248	1N766	12.7	5	55	10	2.60	2.10
20F8249	1N1929	5.6	5	8	10	8.25	6.60
20F8250	1N1930	6.8	5	7	10	8.25	6.60
20F8251	1N1931	8.3	5	15	10	4.70	3.75
20F8252	1N1932	10.0	5	22	10	3.75	3.00
20F8253	1N1933	12.0	1	30	10	3.75	3.00
20F8254	1N1934	14.5	1	50	10	3.75	3.00
20F8255	1N1935	18.0	1	70	10	3.75	3.00
20F8256	1N1936	22.0	1	100	10	3.75	3.00
20F8257	1N1937	27.0	1	200	10	3.75	3.00
20F8258	JZ8.7T10	8.7	0.20	15	10	3.50	2.63
20F8259	JZ10.5T10	10.5	0.20	22	10	3.50	2.63
20F8260	JZ12.7T10	12.7	0.20	30	10	3.50	2.63
20F8261	JZ15.7T10	15.7	0.20	50	10	3.50	2.63
20F8262	JZ19.0T10	19	0.20	70	10	3.50	2.63
20F8263	JZ23.5T10	23.5	0.20	150	10	3.50	2.63
20F8264	JZ28.5T10	28.5	0.20	200	10	3.50	2.63
20F8265	JZ34.5T10	34.5	0.20	300	10	3.50	2.63
20F8266	KZ2.6T10	2.6	5	60	10	3.75	2.81
20F8267	KZ3.4T10	3.4	5	55	10	3.75	2.81
20F8268	KZ4.1T10	4.1	5	45	10	3.75	2.81
20F8269	KZ4.8T10	4.8	5	35	10	3.75	2.81
20F8270	KZ5.8T10	5.8	5	20	10	3.75	2.81
20F8271	KZ7.1T10	7.1	5	10	10	3.75	2.81
20F8272	QZ3.3T5	3.3	20	22	5	2.75	2.25
20F8273	QZ3.6T5	3.6	20	19	5	2.75	2.25
20F8274	QZ3.9T5	3.9	20	18	5	2.75	2.25
20F8275	QZ4.3T5	4.3	20	16	5	2.75	2.25
20F8276	QZ4.7T5	4.7	20	14	5	2.75	2.25
20F8277	QZ5.1T5	5.1	20	10	5	2.75	2.25
20F8278	QZ5.6T5	5.6	20	7	5	2.75	2.25
20F8279	QZ6.2T5	6.2	20	4	5	2.75	2.25
20F8280	QZ6.8T5	6.8	20	4	5	2.75	2.25
20F8281	QZ7.5T5	7.5	20	5	5	2.75	2.25
20F8282	QZ8.2T5	8.2	20	6	5	2.75	2.25
20F8283	QZ9.1T5	9.1	20	7	5	2.75	2.25
20F8284	QZ10T5	10	20	8	5	2.75	2.25
20F8285	QZ11T5	11	5	10	5	2.75	2.25
20F8286	QZ12T5	12	5	11	5	2.75	2.25
20F8287	QZ13T5	13	5	13	5	2.75	2.25
20F8288	QZ14T5	14	5	15	5	2.75	2.25
20F8289	QZ15T5	15	5	17	5	2.75	2.25
20F8290	QZ16T5	16	5	19	5	2.75	2.25
20F8291	QZ17T5	17	5	21	5	2.75	2.25
20F8292	QZ18T5	18	5	25	5	2.75	2.25
20F8293	QZ19T5	19	5	28	5	2.75	2.25
20F8294	QZ20T5	20	5	32	5	2.75	2.25
20F8295	QZ22T5	22	5	35	5	2.75	2.25
20F8296	QZ24T5	24	5	37	5	2.75	2.25
20F8297	QZ25T5	25	5	39	5	2.75	2.25
20F8298	QZ27T5	27	5	40	5	2.75	2.25
20F8299	QZ30T5	30	5	45	5	2.75	2.25

400 MW SILICON GLASS ZENER DIODES—FIG. A

Body size: 0.265x0.110" dia. 10% tolerance.

Stk. No.	Type	Vz@Iz Nom. V.	Izt ma	Zzt@Izt Ohms	V. Tol.	1-99	100-999
20F1349	1N746	3.3	20	28	10	2.60	2.10
20F1350	1N747	3.6	20	24	10	2.60	2.10
20F1352	1N749	4.3	20	22	10	2.60	2.10
20F1353	1N750	4.7	20	19	10	2.60	2.10
20F1354	1N751	5.1	20	17	10	2.60	2.10
20F1355	1N752	5.6	20	11	10	2.60	2.10
20F1356	1N753	6.2	20	7	10	2.60	2.10
20F1357	1N754	6.8	20	5	10	2.60	2.10
20F1358	1N755	7.5	20	6	10	2.60	2.10
20F1359	1N756	8.2	20	8	10	2.60	2.10
20F1360	1N757	9.1	20	10	10	2.60	2.10
20F1361	1N758	10.0	20	17	10	2.60	2.10
20F1362	1N759	12.0	20	30	10	2.60	2.10
20F8300	FZ3.3T5	3.3	20	22	5	3.60	2.85
20F8301	FZ3.6T5	3.6	20	19	5	3.60	2.85
20F8302	FZ3.9T5	3.9	20	18	5	3.60	2.85
20F8303	FZ4.3T5	4.3	20	16	5	3.60	2.85
20F8304	FZ4.7T5	4.7	20	14	5	3.60	2.85
20F8305	FZ5.1T5	5.1	20	10	5	3.60	2.85
20F8306	FZ5.6T5	5.6	20	7	5	3.60	2.85
20F8307	FZ6.2T5	6.2	20	4	5	3.60	2.85
20F8308	FZ6.8T5	6.8	20	4	5	3.60	2.85
20F8309	FZ7.5T5	7.5	20	5	5	3.60	2.85
20F8310	FZ8.2T5	8.2	20	6	5	3.60	2.85
20F8311	FZ9.1T5	9.1	20	7	5	3.60	2.85
20F8312	FZ10T5	10	20	8	5	3.60	2.85
20F8313	FZ11T5	11	5	10	5	3.60	2.85
20F8314	FZ12T5	12	5	11	5	3.60	2.85
20F8315	FZ13T5	13	5	13	5	3.60	2.85
20F8316	FZ14T5	14	5	15	5	3.60	2.85
20F8317	FZ15T5	15	5	17	5	3.60	2.85
20F8318	FZ16T5	16	5	19	5	3.60	2.85
20F8319	FZ17T5	17	5	21	5	3.60	2.85
20F8320	FZ18T5	18	5	25	5	3.60	2.85
20F8321	FZ19T5	19	5	28	5	3.60	2.85
20F8322	FZ20T5	20	5	32	5	3.60	2.85
20F8323	FZ22T5	22	5	35	5	3.60	2.85
20F8324	FZ24T5	24	5	37	5	3.60	2.85
20F8325	FZ25T5	25	5	39	5	3.60	2.85
20F8326	FZ27T5	27	5	40	5	3.60	2.85
20F8327	FZ30T5	30	5	45	5	3.60	2.85

750 MW SILICON ZENER DIODES—FIG. B

Size: 0.025" O.D. with 1¼" leads. Ratings and characteristics at 25°C. Standard types—10% tolerance, suffix "A" types—5%.

Stock No.	Type	Vz @ Iz Nom.Volts	Zz @ Iz Max. Ohms	Iz ma	1-99	100-999
21F950	1N1507	3.9	14	35	4.45	3.65
21FX1410	1N1507A	3.9	14	35	5.45	4.35
21F951	1N1508	4.7	12	30	4.55	3.65
21FX1411	1N1508A	4.7	12	30	5.45	4.35
21F952	1N1509	5.6	5.2	26	3.30	2.65
21F953	1N1510	6.8	1.5	22	3.30	2.65
21F954	1N1511	8.2	1.5	18	3.30	2.65
21F955	1N1512	10	1.8	15	3.30	2.65
21F956	1N1513	12	2.8	12	3.30	2.65
21FX1416	1N1513A	12	2.8	12	3.95	3.15
21F957	1N1514	15	5	10	3.30	2.65
21F958	1N1515	18	9	8	3.30	2.65
21FX1418	1N1515A	18	9	8	3.95	3.15
21F959	1N1516	22	19	6	3.30	2.56
21FX1419	1N1516A	22	19	6	3.95	3.15
21F960	1N1517	27	50	5	3.30	2.65
21FX1420	1N1517A	27	50	5	3.95	3.15

SILICON ZENER VOLTAGE REFERENCE ELEMENTS

Highly stable and rugged reference elements designed to meet the exacting requirements of elements and standards over a temperature range of —55°C to +100°C., except * —55° to +150°C.

Stk. No.	Type	Fig.	Volt Range	Ma @ 25°C	%/°C	Max. Dyn. Res.†	1-99	100-999
20F1385	1N429	C	5.9-6.5	7.5	±.01	20	5.70	4.35
USN	1N430	D	8.0-8.8	10	±.002	15	25.20	21.60
21F989	1N430	D	8.0-8.8	10	±.002	15	15.60	13.30
20F8328	1N530	D	8.0-8.8	10	±.002	15	15.60	13.30
20F8329	1N530A	D	8.0-8.8	10	±.001	15	23.40	19.95
20F8330	1N821	A	5.9-6.5	7.5	±.01	15	5.10	4.10
20F8331	1N821A	A	5.9-6.5	7.5	±.01	15	5.65	4.50
20F8332	1N823	A	5.9-6.5	7.5	±.005	15	6.85	5.50
20F8333	1N823A	A	5.9-6.5	7.5	±.005	15	7.50	6.00
20F8334	1N825	A	5.9-6.5	7.5	±.002	15	10.55	8.45
20F8335	1N825A	A	5.9-6.5	7.5	±.002	15	12.00	9.00
20F8336	1N827	A	5.9-6.5	7.5	±.001	15	27.00	21.60
20F8337	1N827A	A	5.9-6.5	7.5	±.001	15	29.35	23.50
20F8338	1N3154	A	8.0-8.8	10	±.01	15	7.20	5.80
20F8339	1N3154A*	A	8.0-8.8	10	±.01	15	8.20	6.55
20F8340	1N3155	A	8.0-8.8	10	±.005	15	11.30	9.05
20F8341	1N3155A*	A	8.0-8.8	10	±.005	15	12.30	9.85
20F8342	1N3156	A	8.0-8.8	10	±.002	15	16.80	13.40
20F8343	1N3156A*	A	8.0-8.8	10	±.002	15	18.20	14.55
20F8344	1N3157	A	8.0-8.8	10	±.001	15	25.30	20.25

† at 10 ma bias current.

INT'L RECTIFIER SEMICONDUCTORS

1-WATT SILICON ZENER DIODES—FIG. A

Size: 0.375" O.D. with 1¼" leads. Ratings and characteristics at 25°C. Standard types—10% tolerance, suffic "A" types—5%.

Stock No.	Type	Vz @ Iz Nom. Volts	Zz @ Iz Max. Ohms	Iz ma	1-99	100-999
21F976	1N1518	3.9	9	50	4.25	3.40
21FX1421	1N1518A	3.9	9	50	5.05	4.05
21F977	1N1519	4.7	8.5	40	4.25	3.40
21FX1422	1N1519A	4.7	8.5	40	5.05	4.05
21F978	1N1520	5.6	5.5	35	3.10	2.45
21FX1423	1N1520A	5.6	5.5	35	3.70	2.95
21F979	1N1521	6.8	1.6	30	3.10	2.45
21FX1424	1N1521A	6.8	1.6	30	3.70	2.95
21F980	1N1522	8.2	1.1	25	3.10	2.45
21FX1425	1N1522A	8.2	1.1	25	3.70	2.95
21F981	1N1523	10	1.5	20	3.10	2.45
21FX1426	1N1523A	10	1.5	20	3.70	2.95
21F982	1N1524	12	2.4	15	3.10	2.45
21FX1427	1N1524A	12	2.4	15	3.70	2.95
21F983	1N1525	15	5.4	13	3.10	2.45
21FX1428	1N1525A	15	5.4	13	3.70	2.95
21F984	1N1526	18	11	10	3.10	2.45
21FX1429	1N1526A	18	11	10	3.70	2.95
21F985	1N1527	22	18	9	3.10	2.45
21FX1430	1N1527A	22	18	9	3.70	2.95
21F986	1N1528	27	28	7	3.10	2.45
21FX1431	1N1528A	27	28	7	3.70	2.95

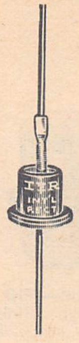
1 WATT ZENER VOLTAGE REGULATORS (FLANGELESS) FIG. B

These zener regulators are designed primarily for continuous feeding in automated assembly processes. They are available in ratings from 6.8 to 200 volts. All of the units are process-selected so that they may assure extremely sharp zener "knees" and excellent voltage regulation over the entire operating temperature range. Voltage tolerance for all below is 5%.

FIG. B

20F8345	1N1768A	7.5	2.1	100	4.70	3.75
20F8346	1N1769A	8.2	2.4	100		
20F8347	1N1770A	9.1	3.0	50		
20F8348	1N1771A	10	3.5	50		
20F8349	1N1772A	11	4.2	50		
20F8350	1N1773A	12	5.0	50		
20F8351	1N1774A	13	5.8	50		
20F8352	1N1775A	15	7.6	50		
20F8353	1N1776A	16	8.6	50		
20F8354	1N1777A	18	11	50		
20F8355	1N1778A	20	13	15		
20F8356	1N1779A	22	16	15		
20F8357	1N1780A	24	18	15		
20F8358	1N1781A	27	23	15		
20F8359	1N1782A	30	28	15	6.00	4.80
20F8360	1N1783A	33	33	15		
20F8361	1N1784A	36	39	15		
20F8362	1N1785A	39	45	15		
20F8363	1N1786A	43	54	15		
20F8364	1N1787A	47	64	15		
20F8365	1N1788A	51	74	15		
20F8366	1N1789A	56	88	15		
20F8367	1N1790A	62	105	5		
20F8368	1N1791A	68	125	5		
20F8369	1N1792A	75	150	5		
20F8370	1N1793A	82	175	5		
20F8371	1N1794A	91	220	5		
20F8372	1N1795A	100	260	5		
20F8373	1N1796A	110	320	5	7.85	6.30
20F8374	1N1797A	120	390	5		
20F8375	1N1798A	130	450	5		
20F8376	1N1799A	150	600	5		
20F8377	1N1800A	160	700	5		
20F8378	1N1801A	180	900	5		
20F8379	1N1802A	200	1100	5		

SILICON ZENER DIODES



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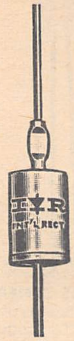

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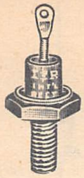

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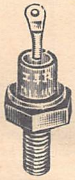

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3.5-WATT SILICON ZENER DIODES—FIG. C

Size: 1.222" overall L. x 7⁄16" across hex flats. 10-32 stud mount with washer and nut. Standard types—10% tolerance, suffix '' types—5%.

Stock No.	Type	Vz @ Iz Nom. Volts	Zz @ Iz Max. Ohms	Iz ma	1-99	100-999
23F632	1N1588	3.9	2.6	150	5.30	4.25
20F1363	1N1588A	3.9	2.6	150	6.40	5.10
23F633	1N1589	4.7	2.3	125	5.30	4.25
20F1364	1N1589A	4.7	2.3	125	6.40	5.10
23F634	1N1590	5.6	1.4	110	3.85	3.10
20F1365	1N1590A	5.6	1.4	110	4.60	3.70
23F635	1N1591	6.8	.58	100	3.85	3.10
23F636	1N1592	8.2	.5	80	3.85	3.10
23F637	1N1593	10	.7	70	3.85	3.10
20F1368	1N1593A	10	.7	70	4.60	3.70
23F638	1N1594	12	1.4	50	3.85	3.10
20F1369	1N1594A	12	1.4	50	4.60	3.70
23F639	1N1595	15	3.4	40	3.85	3.10
20F1370	1N1595A	15	3.4	40	4.60	3.70
20F1371	1N1596A	18	6	35	4.60	3.70
23F641	1N1597	22	9	30	3.85	3.10
20F1372	1N1597A	22	9	30	4.60	3.70
23F642	1N1598	27	13	25	3.85	3.10
20F1373	1N1598A	27	13	25	4.60	3.70

10-WATT SILICON ZENER DIODES—FIG. D

Size: 1.328" overall L. x 7⁄16" across hex flats. 10-32 stud mounting with washer and nut. Standard types—10% tolerance, suffix '.A" types—5%.

Stock No.	Mfr's Type	Vz @ Iz Nom. Volts	Zz @ Iz Max. Ohms	Iz ma	1-99	100-999
21F963	1N1599	3.9	.84	500	7.45	5.95
20F1374	1N1599A	3.9	.84	500	9.70	7.75
21F964	1N1600	4.7	.68	400	7.45	5.95
20F1375	1N1600A	4.7	.68	400	9.70	7.75
21F965	1N1601	5.6	.3	350	6.20	4.95
20F1376	1N1601A	5.6	.3	350	8.05	6.45
21F966	1N1602	6.8	.2	300	6.20	4.95
21F967	1N1603	8.2	.25	250	6.20	4.95
20F1378	1N1603A	8.2	.25	250	8.05	6.45
21F968	1N1604	10	.55	200	6.20	4.95
20F1379	1N1604A	10	.55	200	8.05	6.45
21F969	1N1605	12	.95	170	6.20	4.95
20F1380	1N1605A	12	.95	170	8.05	6.45
21F970	1N1606	15	1.5	140	6.20	4.95
21F971	1N1607	18	2	110	6.20	4.95
20F1382	1N1607A	18	2	110	8.05	6.45
21F972	1N1608	22	3	90	6.20	4.95
21F973	1N1609	27	4.5	70	6.20	4.95
20F1384	1N1609A	27	4.5	70	8.05	6.45

THIS SEMICONDUCTOR LISTING IS COMPLETE TO THE DATE OF PRINTING, AUGUST 15, 1962, BUT NEW ITEMS ARE CONTINUALLY COMING OUT AND ARE BEING ADDED TO THE NEWARK STOCK. CHECK WITH THE NEWARK INDUSTRIAL DEPARTMENT FOR ANY NEW SEMICONDUCTORS NOT LISTED. ORDERS WILL BE BILLED TO YOU AT THOSE PRICES IN EFFECT AT TIME OF SHIPMENT.

INT'L RECTIFIERS SEMICONDUCTORS -

SILICON POWER AND CONTROLLED RECTIFIERS

A

B

C

D

E

F

SILICON POWER RECTIFIERS—Fig. E

Hermetically sealed, extremely reliable, shock and vibration istant devices. Oper. range: —65° to 180°C. 45 to 150 Amps. ize: 5¾"L.x⅘" Dia.

Stock No.	Type	PRV	Max. DC Amps	Max. I ma	NET
23F622	45L5	50	From 150 A @ 180° to 120 A @ 60°. Base Temp 100°C.	40 ma max. @ 170°C. Base Temp.	7.75
20F8216	1N3085	100			9.55
20F8217	1N3086	200			14.20
20F8218	1N3087	300			20.80
20F8219	1N3088	400			29.80
20F8220	1N3089	500			37.80
20F8221	1N3090	600			45.75

70 to 250 Amps. Oper. Temp: —65° to —190°C.—Fig. F.

21FX1400	1N2054	50	250 A @ 95°C Base Temp.	55 ma @ +170°C. Base Temp.	12.40
21FX1401	1N2055	100			14.90
21FX1402	1N2056	150			17.80
21FX1405	1N2059	300			27.10

5 AMP SILICON CONTROLLED RECTIFIER—Fig. A

Avg. forward current: 4.7 amps. Oper. Temp. Range: —65° to 105°C. Gate excitation requirements: 2 volts @ 20 ma. 4.5 ma Max. forward and reverse leakage.

Stock No.	Type	PRV	1-99	100-999
20F1457	5RC2	25	5.53	3.69
20F1458	5RC5	50	6.88	4.59

10 AMP SILICON CONTROLLED RECTIFIERS—Fig. B

Avg. forward current: 10 amps. Oper. Temp. Range: —65° to 125°C. Gate excitation requirements: 3 volts @ 40 ma. Max. forforward and reverse leakage: 6.5 ma except * 6.0.

Stock No.	Type	PRV	1-99	100-999
21FX1301	10RC2	25	9.70	6.50
21FX1303	10RC5	50	10.30	6.90
21FX1305	10RC10	100	11.80	7.85
21FX1306	10RC15	150	14.00	9.35
21FX1307	10RC20	200	15.30	11.20

16 AMP SILICON CONTROLLED RECTIFIERS—Fig. B

Avg. forward current: 16 amps. Oper. Temp. Range: —65° to 125°C. Gate excitation requirements: 3 volts @ 40 ma. Max. Forward and reverse Leakage: 6.5 MA.

Stock No.	Type	PRV	1-99	100-999
21FX1441	16RC5	50	13.80	9.20

SILICON BRIDGE RECTIFIER ASSEMBLIES

Pre-engineered and completely assembled single phase bridge rectifier stacks. The ½ and 1.2 amp series are sub-miniature assemblies of diodes on glass melamine board. All others are fin mounted assemblies. All diodes and rectifiers used are hermetically sealed to withstand extremes of temperature and humidity. Dual amp. ratings on B12 and B25 types are without and with fan cooling.

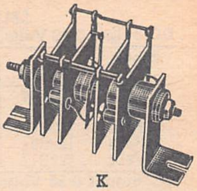
Stock No.	Part No.	Fig.	Input RMS Volt	Output (DC) Volt*	Output (DC) Amps @50°C	1-99	100-999
21FX1350	5SMB5L	H	35	30	½	3.50	3.10
21FX1351	5SMB10L	H	70	62	½	3.98	3.45
21FX1352	5SMB20L	H	140	125	½	4.54	3.85
20F1386	12MB10L	H	70	62	1.2	3.18	......
20F1387	12MB20L	H	140	125	1.2	3.94	......
20F1388	1N2725	K	70	62	2.5	6.01	......
20F1389	1N2728	K	140	125	2.5	6.01	......
20F1390	1N2731	K	210	188	2.5	7.31	......
20F1392	B12F10	J	25	20	14/30	13.40	......
20F1393	B12F20	J	60	43	14/30	18.56	......
20F1394	B12F40	J	120	87	14/30	23.20	......
20F1398	B25H40	J	120	87	18/42	39.80	......

*Into resistive on inductive load. Add 10-30% for capacitive load.

G

H

J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16 AMP SILICON STUD MOUNTED RECTIFIERS—Fig. B

Oper. Temp. Range: —65°C to 190°C. Max. DC output (@ up to 150°C) and reverse current rating (@ 175°C base temp.) are full cycle average values. DO-4 Case.

Stk. No.	Type	PRV	Maximum DC Amps	Maximum I. ma	1-99	100-999
20F8222	16F5	50	16.0	3.0	2.90	2.00
20F8223	16F10	100	16.0	2.5	3.35	2.40
20F8224	16F15	150	16.0	2.25	4.45	3.00
20F8225	16F20	200	16.0	2.0	6.00	4.30
20F8226	16F30	300	16.0	1.75	7.75	5.80
20F8227	16F40	400	16.0	1.5	11.40	8.60
20F8228	16F50	500	16.0	1.25	15.00	10.00
20F8229	16F60	600	16.0	1.0	23.70	17.00
20F8230	16F80	800	16.0	.75	32.70	24.70
20F8231	16F100	1000	16.0	.60	44.00	36.00

6 AMPERE SILICON RECTIFIERS—Fig. B

Oper. Temp. Range: —65°C to 190°C. Max. DC output (@ up to 150°C) and reverse current rating (@ 175°C base temp.) are full cycles average values. DO-4 case. Types listed will replace 1N1341-1348 Series.

Stk. No.	Type	PRV	Maximum DC Amps	Maximum I. ma	1-99	100-999
20F8232	1N1341A	50	6.0	3.0	2.80	1.80
20F8233	1N1342A	100	6.0	2.5	3.10	2.05
20F8234	1N1343A	150	6.0	2.25	3.80	2.60
20F8235	1N1344A	200	6.0	2.0	4.80	3.10
20F8236	1N1345A	300	6.0	1.75	6.25	4.15
20F8237	1N1346A	400	6.0	1.5	8.63	5.85
20F8238	1N1347A	500	6.0	1.25	11.40	7.65
20F8239	1N1348A	600	6.0	1.0	13.20	8.65
20F8240	6F80A	800	6.0	0.075	22.60	15.25
20F8241	6F100A	1000	6.0	0.06	34.05	22.80

25 TO 35 AMP. COMMERCIAL TYPES—Fig. C

These 25 to 35 amp rectifiers are capable of extremely stable operation at temperatures up to 130°C base temp. Very low reverse leakage (10ma, full cycle). "Quad-sealed", a 4-layer process assures high resis. to humidity, shock, and vibration. May be mounted in any position. 1⅕L.x⅗" dia. 3 oz.

Stock No.	Jedec Type	Mfg. Type	Rated PIV	RMS Max.	1-99	100-999
21FX1334	1N2128	25HB5	50	35	3.27	2.59
21FX1335	1N2129	25HB10	100	70	3.85	3.04
21FX1336	1N2130	25HB15	150	105	4.58	3.60
21FX1337	1N2131	25HB20	200	140	5.25	4.10
21FX1339	1N2133	25HB30	300	210	6.35	4.90
21FX1340	1N2135	25HB40	400	280	6.70	5.20
21FX1341	1N2137	25HB50	500	350	7.30	5.80

25 TO 45 AMP. INDUSTRIAL TYPES—Fig. D

Hermetically sealed. Designed to meet the most rigid military specifications. Will provide added stability in environmental extremes of temp. (—65°C to 200°C), humidity, shock and vibration. 1⅜Lx⅝dia. 3 oz.

Stock No.	JEDEC Type	Mfg. Type	PIV	RMS Max.	Rec. Op. RMS	1-99	100-999
23F613	1N2128A	25H5	50	35	12	4.25	3.00
23F615	1N2130A	25H15	150	105	36	6.05	4.30
23F616	1N2131A	25H20	200	140	48	7.10	4.90
23F618	1N2133A	25H30	300	210	72	9.90	6.80
23F619	1N2134A	25H35	350	245	84	11.80	7.80
23F620	1N2135A	25H40	400	280	96	13.95	9.20

IR UNIJUNCTION SCR TRIGGER—Fig. G

Specifically for firing industrial controlled rectifier circuits. Stable over a temp. range of —65° to +140°C. 250 mw power diss. RMS omitter current: 50 ma. Interbase voltage: 35 volts. (above rating at 25°XC).

Stock No.	Type	Description	1-99	100-999
20F8242	QT-1	Modified to 18 pkg.	3.00	2.00

INT'L. RECTIFIER SEMICONDUCTORS

SELENIUM BRIDGE RECTIFIERS

DC output 0-29 Volts. Maximum AC input 36 Volts.

Stock No.	Type	DCA Out.	Size	1-9	10-99
21F809	J29B04	0.4	1⅜x1x1¾"	**1.57**	**1.33**
21F810	J29B1	1.5	1⅞x1½x1¹³⁄₁₆"	**2.28**	**1.90**
21F812	J29B5	4.8	3¾x3x3¼"	**6.43**	**5.63**
21F813	J29B8	8.4	4¾x4x2⅜"	**8.93**	**7.44**
21F814	J29B17	17.0	6¾x5x3½"	**13.27**	**11.06**

DC output 0-58 Volts. Maximum AC input 72 Volts.

Stock No.	Type	DCA Out.	Size	1-9	10-99
21F816	J58B04	0.4	1⅜x1x2½"	**3.11**	**2.60**
21F817	J58B1	1.5	1⅞x1½x2⁹⁄₁₆"	**4.49**	**3.74**
21F819	J58B5	4.8	3¾x3x4¹³⁄₁₆"	**12.08**	**10.07**
21F820	J58B8	8.4	4¾x4x5⁵⁄₁₆"	**16.75**	**13.96**

DC output 0-116 Volts. Maximum AC input 144 Volts (122 Volts).

Stock No.	Type	DCA Out.	Size	1-9	10-99
21F829	J116B04	0.4	1⅜x1x4¹⁄₁₆"	**5.56**	**4.63**
21F830	J116B1	1.5	1⅞x1½x4⅛"	**8.15**	**6.80**
21F826	J116B5	4.8	3¾x3x7¹³⁄₁₆"	**22.91**	**19.10**
21F827	J116B8	8.4	4¾x4x7⁵⁄₁₆"	**32.09**	**26.75**
21F828	J116B17	17.0	6¾x5x10½"	**50.45**	**42.05**

DC output 0-135 Volts. Maximum input 180 Volts.

Stock No.	Type	DCA Out.	Size	1-9	10-99
21F836	J135B04	0.4	1⅜x1x4¹³⁄₁₆"	**6.77**	**5.65**
21F837	J135B1	1.5	1⅞x1½x4⅞"	**9.93**	**8.28**
21F840	J135B8	8.4	4¾x4x8¹³⁄₁₆"	**39.71**	**33.10**

BATTERY CHARGING RECTIFIERS

Single plate rectifiers for replacement of low current trickle chargers and for constant current models. By using single plates any current rating and circuit configuration (e.g. bridge) may be assembled.

DC output 6 and 12 Volts. Maximum AC input 16.5 (33) Volts

Stock No.	Type	DCA Out.	Size	1-9	10-99
20F1414	JD116K	2	3x3x½"	**1.20**	**.96**
20F1415	JD117K	3	4x4x½"	**1.80**	**1.44**
20F1416	JD241K	6	6x5x½"	**2.46**	**1.97**

DC output 0-14 V. Maximum AC input 36 Volts.

Stock No.	Type	DCA Out.	Size	1-9	10-99
21F800	J14C04	0.4	1⅛x1x1¼"	**.95**	**.79**
21F802	J14C1	1.5	1⅞x1½x1⁷⁄₁₆"	**1.39**	**1.16**
21F803	J14C5	4.8	3¾x3x1¾"	**3.48**	**2.90**
21F805	J14C17	17.0	6¾x5x3⅜"	**7.55**	**6.30**

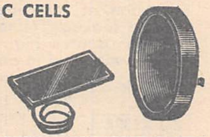
SELENIUM TV-RADIO-AUDIO STACKS

Compact, high density types for economy with reliability. Negligible leakage and aging. Supplied with mounting hardware. Maximum RMS volt. 130.

Stock No.	Type	DCMA Out.	Size	1-9	10-99
20F1423	T-065/75	75	.67x .67x .75"	**.48**	**.43**
20F1424	T-075/150	150	.67x .67x1.06"	**.69**	**.62**
20F1425	T-200/300	300	1.25x1.25x1.31"	**1.08**	**.97**

INDUSTRIAL SELENIUM PHOTO-ELECTRIC CELLS

PL in type number indicates unmounted unit with flexible leads; M, in molded case with stud terminals; DP3 hermetically sealed plug-in unit, DP5 hermetically sealed with solder terminals. *Microamps into 100 ohm load @ 100 foot-candles.



Stock No.	Type No.	Size	Output*	1-9	10-99	100-999
20F1417	A5PL	1⅛" round	250	**2.50**	**2.15**	**1.55**
21F894	A5M	1¼" dia.; 0.3"	220	**7.00**	**6.65**	**4.55**
20F1420	B2PL	0.72"x0.44"	77	**1.50**	**1.35**	**1.00**
21F888	B10M	2.2"x1.1"x0.4"	320	**7.00**	**6.65**	**4.55**
20F1422	B15PL	1.69"x1.69"	640	**6.50**	**5.95**	**4.15**
21F890	DP3	0.75"x0.35"x0.36"	66	**10.00**	**9.50**	......

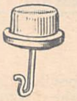
INDUSTRIAL SILICON SOLAR CELLS

For efficient direct conversion of sunlight into electricity. All with leads except 5SM type which has turret terminals. Output in full sunlight.

Stock No.	Mfg. No.	Size (Inch)	Output V.	Output MA	1-99	100-999
20F1427	S1020E4PL	0.4x0.8	0.4	18	**1.95**	**1.75**
20F1428	S1020E6PL	0.4x0.8	0.4	27	**2.50**	**2.20**
20F1429	S1020E8PL	0.4x0.8	0.4	36	**3.85**	**3.40**
20F1430	5SM1020E6	2½x⅞	1.9	27	**13.20**	**11.60**

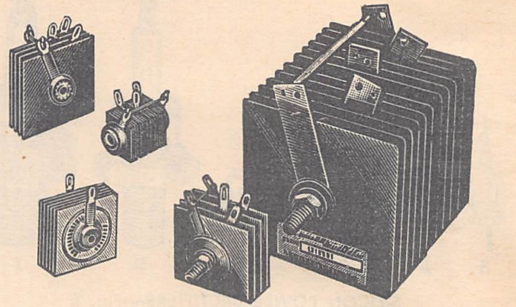
AUTOMOTIVE ALTERNATOR SILICON RECTIFIERS

For automotive use where alternators furnish electrical power. Exact replacements for alternator rectifiers in all Chrysler Corp. cars since 1960. Rapid, simple installation. Test circuit and mounting information furnished.



Stk. No.	Type	Polarity	Replaces MOPAR Types	1-9	10-99
20F8214	JJ1010	Case Neg.	2095502 & 2095332	**1.60**	**1.35**
20F8215	JJ1020	Case Pos.	2095506 & 2095331	**1.60**	**1.35**

SELENIUM RECTIFIERS



MINIATURE SELENIUM RECTIFIERS

Provide stable voltage for bias supplies, solenoid and relay plies, small battery chargers. Conservatively rated and ea install.

Single Plate Half Wave Rectifiers

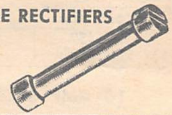
Stock No.	Type	Max. DC MA	Max. RMS Volts	Dimensions H	Dimensions W	Dimensions Max. Depth	1-99	100-999
21F850	Q1H	65	25	.67"	.67"	7/16"	**.36**	**.22**
21F851	A1H	100	25	1"	1"	7/16"	**.38**	**.23**
21F852	B1H	150	25	1.2"	1.2"	7/16"	**.40**	**.24**
21F853	C1H	250	25	1.5"	1.5"	7/16"	**.42**	**.25**
21F854	M1H	500	25	2"	2"	7/16"	**.56**	**.34**

Full Wave Bridge Rectifiers

Stock No.	Type	Max. DC MA	Max. RMS Volts	Dimensions H	Dimensions W	Dimensions Max. Depth	1-99	100-999
21F855	Q1B	100	25	.67"	.67"	¾"	**.84**	**.50**
21F856	Q4B	100	130	.67"	.67"	1⁵⁄₁₆"	**1.56**	**.94**
21F857	A1B	180	25	1"	1"	¾"	**1.22**	**.73**
21F858	B1B	300	25	1.2"	1.2"	¾"	**1.28**	**.77**
21F859	C1B	600	25	1.5"	1.5"	¾"	**1.46**	**.88**
21F868	M1B	1200	25	2"	2"	¾"	**1.72**	**1.03**

SELENIUM HIGH VOLTAGE CARTRIDGE RECTIFIERS

Half Wave selenium cartridges of high efficiency. Conservatively rated. Temp. range: —65°C to +100°C. O.D. of ferrule: 35/64" to fit 30 amp fuse clips. Length 2⁵⁄₁₆" (V50-HF) to 6" (V175HF).



Stk. No.	Mfr. No.	DC V	PRV	1-9	10-99	100-999
21F860	V50HF	1000	2400	**3.43**	**2.40**	**2.06**
21F861	V75HF	1500	3600	**4.60**	**3.22**	**2.76**
21F862	V100HF	2000	4800	**5.50**	**3.85**	**3.30**
21F863	V125HF	2500	6000	**6.85**	**4.80**	**4.11**
21F864	V150HF	3000	7200	**7.75**	**5.42**	**4.65**
21F865	V175HF	3500	8400	**9.10**	**6.37**	**5.46**

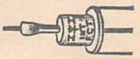
SILICON PLUG-IN TUBE REPLACEMENTS

Solid state rectifiers replace medium and high voltage tubes. Rugged construction, long life, no warm-up time, no filament supply required, low operating temperature. *High altitude types.

Stock No.	Type No.	JEDEC No.	Replaces Tube Types	1-9	10-99
20F1442	ST-1	1N2630	6X4, 12X4	**13.00**	**9.95**
20F1443	ST-1A	1N570	MIL6X4, MIL12X4, 5AW4, 5AX4, 5AZ4, 5AU4,5W4	**30.00**	**21.00**
20F1444	ST-2	1N2631	5Y3, 5U4, 5Y4, 6004, 5Z4	**13.00**	**9.95**
20F1445	ST-2A	1N2532	5R4, 5R4W	**20.45**	**15.75**
20F1446	ST-3	1N2633	6AX5, 6W5, 6X5, 6ZY5, 0Z4, 5839, 5832, 5X4	**13.00**	**9.95**
20F1447	ST-4	1N2634	5Z3, 80, 82, 83, 83V	**13.00**	**9.95**
20F1448	ST-5	1N2635	6X4*, 12X4*	**14.40**	**10.08**
20F1449	ST-6	1N2636	84/6Z4	**14.40**	**10.08**
20F1450	ST-7A	....	866, 866A	**28.25**	**21.00**
20F1451	ST-8	....	0Z4, 6X5	**9.00**	**6.90**

SEMICAP SILICON HI-Q VOLTAGE VARIABLE CAPACITORS

Useful in variable frequency oscillators, AFC and modulator circuits. Small, sensitive, reliable. "Q" at 1 mc; 1000 for 6.8SC20; 100 for 100SC2. Frequency range 1 to 500 mc.

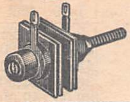


Stock No.	Type	Cap. Range uuf	Peak Sig. + Bias V. Range	1-99	100-999
21F999	6.8SC20	3 to 30	.1 to 200 VDC	**1.10**	**.83**
20F1455	100SC2	80 to 450	.1 to 20 VDC	**2.75**	**2.55**

SILICON AND DRY DISC RECTIFIERS

NEWARK CARRIES COMPLETE LINES

KLIPVOLT SUPPRESSORS



Designed to help reduce transient voltages to as low a value as possible without changing circuit characteristics or adding excessive cost. It is recommended that these non-polarized suppressors are selected to circuit reguirements, not matched to the silicon rectifiers they are intended to protect.

SELENIUM SUPPRESSORS

Stock No.	Mfg. Type	Rated Peak Volts	Rated RMS Volts	Vickers Overall Length*	1-9	10-49	50-99	100-up
21FX1650	S-591	25	17.5	1"	.83	.75	.66	....
21FX1651	S-487	50	35	1 1/16"	.87	.87	.78	.70
21FX1652	S-592	75	55	1 5/32"	1.19	1.07	.95	....
21FX1653	S-488	100	70	1 3/16"	1.19	1.07	.95	....
21FX1654	S-489	150	105	1 3/8"	1.83	1.83	1.36	1.21
21FX1655	S-490	200	140	1 9/16"	1.83	1.83	1.65	1.46

Stock No.	Mfg. Type	Rated Peak Volts	Rated RMS Volts	Vickers Overall Length*	Klipvolt Overall Length*	1-9	10-49	50-99	100-up
21FX1656	S-491	250	175	1 3/4"	1 9/16"	2.15	2.15	1.94	1.72
21FX1657	S-492	300	210	1 7/8"	1 11/16"	2.47	2.47	2.22	1.98
21FX1658	S-593	350	240	2 1/16"	1 13/16"	2.79	2.51	2.23	....
21FX1659	S-493	400	280	2 1/4"	2"	3.11	3.11	2.80	2.49
21FX1660	S-494	500	350	2 5/8"	2 1/4"	3.75	3.75	3.38	3.00
21FX1661	S-495	600	420	2 15/16"	2 9/16"	4.39	4.39	3.95	3.51
21FX1662	S-594	700	490	....	3 3/16"	5.03	4.53	4.02	....

*S-594 has mounting stud on each end, others have single stud.

SILICON RECTIFIERS

Silicon rectifiers for high temperature applications. Full ratings from —55°C to +150°C. M series is snap-in; L series: snap-in; series: bolt-in, low cost; Tube Replacement types are plug-in and will replace 95% of the vacuum rectifiers now in use. High Current series are heat sink type; High Voltage types are snap-in. Versatile mounting permits use in center tap, bridge and 3 phase operation at increased current.

HIGH CURRENT TYPES

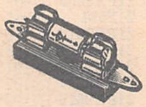
Stock No.	Type	JEDEC No.	PIV	DC Amps	1-9	10-49	50-99	100 up
21F1536	5R3N	....	50	20	4.85	4.20	3.15	2.65
21F1537	20R3N	....	200	20	6.04	5.15	4.15	3.25
21F1538	30R3N	....	300	20	7.42	6.30	5.10	4.00
21F1568	40R3N	....	400	35	8.17	7.05	5.75	....
21F1569	40R3P	....	400	20	8.17	7.05	5.75	....
21F1539	10S3N	....	100	35	6.83	5.90	4.70	3.70
21F1540	20S3N	....	200	35	7.62	6.50	5.25	4.10
21F1541	40S3N	....	400	35	9.60	8.20	6.70	5.20
21F1567	40S3P	....	400	35	9.60	8.20	6.70	....
21FX1601	20S3N	....	200	35	7.62	6.50	5.25	4.10
21FX1602	30S3N	....	300	35	9.01	7.80	6.35	4.90
21F1542	10V3N	....	100	100	13.67	11.30	9.30	8.25
21F1543	10V3P	....	200	100	15.59	....	....	....
21FX1603	10T3N	....	100	150	7.72	6.85	5.65	4.15
21F1545	10WAN	....	100	200	14.11	12.75	10.25	9.40
21F1548	10XAN	....	100	200	17.23	14.50	12.55	11.50
21FX1610	30XAN	....	300	200	26.93	24.15	22.10	21.10
21FX1611	10X3N	....	100	50	17.23	14.50	12.55	11.50

J SERIES HALF WAVE

Stock No.	Type	JEDEC No.	PIV	DC Amps	1-9	10-49	50-99	100 up
21F1512	10J2	1N1621	100	10	3.12	2.65	2.15	1.75
21F1513	20J2	1N1622	200	10	3.82	3.30	2.75	2.14
21F1514	30J2	1N1623	300	10	4.56	3.84	3.19	2.62
21F1515	40J2	1N1624	400	10	5.56	4.68	3.87	3.18
21F1552	10J3N*	....	100	12	3.63	3.07	2.55	2.15
21F1553	20J3N*	....	200	12	4.38	3.75	3.15	2.54
21F1554	30J3N*	....	300	12	5.12	4.29	3.59	3.02
21F1555	40J3N*	....	400	12	5.99	5.05	4.27	3.58
21F1556	10J3P†	....	100	12	3.63	3.07	2.55	2.15
21F1557	20J3P†	....	200	12	4.38	3.75	3.15	2.54
21F1558	30J3P†	....	300	12	5.12	4.29	3.59	3.02
21F1559	40J3P†	....	400	12	5.99	5.05	4.27	3.58

*—Neg. Base. †—Pos. Base.

M-500 RECTIFIERS



Type M500. Smaller than selenium! Replaces selenium rectifiers in practically all TVs. Increases height, width, and contrast of pictures. Excellent for radios and experimental work. PIV 400 volts, current 500 ma. *2 rectifiers and dual polarized clip/kit.

Stk. No.	Description	PIV	DC MA	1-9	10-49	50-99	100-up
21F265	M500 Kit*	400	500	2.80	2.52	2.24	....
21F266	Dual Clip	......	......	.24	.22	.19	....
21F267	Single Clip	......	......	.12	.11	.10	....
21F268	Single Rect.	400	500	1.48	1.40	1.20	.99

M-150 RECTIFIERS

Type M-150. *Kit includes M-150 low current silicon rectifier with max. DC current of 150 MA, PIV 360 volts, single holder and all necessary mounting hardware.

Stk. No.	Description	PIV	DC MA	1-9	10-49	50-99
21F263	Single rect.	360	150	.94	.85	.76
21F264	M-150 Kit*	360	150	.95	.86	.77

FULL RANGE SELENIUM RECTIFIERS

Stock No.	Type	Range DC Ma.	Max. VAC	1-9	10-99
21F1560	50-75	50-75	130	.48	.45
21F1561	100-150	100-150	130	.72	.65
21F1562	200-250	200-250	130	1.08	.98
21F1563	300-500	300-500	130	1.32	1.19

L SERIES HALF WAVE

Stock No.	Type	JEDEC No.	PIV	DC MA	1-9	10-49	50-99	100 up
21F1509	20LA	1N1086	200	2000	4.11	3.98	3.80	3.61
21F1510	30LA	1N1087	300	2000	4.60	4.45	4.20	3.99
21F1511	40LA	1N1088	400	2000	5.02	4.86	4.60	4.45

M SERIES

Stock No.	Type	JEDEC No.	PIV	DC MA	1-9	10-49	50-99	100-up
21F1505	10M	1N1081	100	500	1.19	1.10	.90	.73
21F1506	20M	1N1082	200	500	1.25	1.16	1.00	.81
21F1507	30M	1N1083	300	500	1.34	1.25	1.07	.88

HIGH VOLTAGE TYPES HALF WAVE

Stock No.	Type	JEDEC No.	PIV	DC MA	1-9	10-49	50-99	100-up
21F1525	80SM	1N1108	800	450	4.24	4.10	4.00	3.60
21F1526	120SM	1N1109	1200	425	6.37	6.17	6.00	5.40
21F1527	160SM	1N1110	1600	400	8.48	8.23	8.00	7.20
21F1528	200SM	1N1111	2000	375	10.59	10.28	10.00	9.00
21F1529	240SM	1N1112	2400	350	12.72	12.30	12.00	10.80
21F1530	280SM	1N1113	2800	325	14.85	14.40	14.00	12.60

TUBE REPLACEMENT TYPES HALF WAVE

Stock No.	Type	JEDEC No.	PIV	DC MA	1-99	100-up
21F1531	S-5011A	1N1150A	1600	750	12.87	11.70
21F1532	S-5017	1N1237	1600	750	12.87	11.70
21F1533	S-5018	1N1238	1600	750	12.87	11.70
21F1534	S-5019	1N1239	2800	500	20.25	18.10
21FX1614	S-5130	....	10,400	300	28.86	26.85
21FX1615	S-5207	1N2490	1600	500	12.87	11.70
21FX1616	S-5251	1N2389	1600	600	6.04	5.85

Stk. No.	Type	PIV.	DC MA	1-99	100-up
21F1564	S-5343	7000	300	20.25	18.10
21F1565	S-5347	1600	500	12.87	9.40

F SERIES HALF WAVE

Stock No.	Type	JEDEC No.	PIV	DC MA	1-9	10-49	50-99	100-up
21FX1617	F2	1N2482	200	750	.99	.80	.70	.60
21FX1618	F4	1N2483	400	750	1.14	.95	.85	.75
21FX1619	F6	1N2484	600	750	1.24	1.10	.90	.85
21FX1566	2F4	....	400	200	.89	.85	.75	.63

H SERIES FULL WAVE

Stock No.	Type	JEDEC No.	PIV	DC MA	1-9	10-49	50-99	100-up
21FX1620	10H	....	100	750	.99	.80	.70	.60
21FX1621	20H	1N2485	200	750	1.04	.85	.75	.65
21FX1622	40H	1N2487	400	750	1.09	1.00	.90	.80
21FX1623	60H	1N2489	600	750	1.48	1.30	1.20	1.10

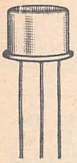
"CENTRE-KOOLED" SELENIUM RECTIFIERS

Featuring center cooling by means of spacers. Each spacer acts as an individual spring to guarantee constant assembly pressure. Higher leakage resistance assured by protective end plates of bakelite. Color coded for polarity identification. All rated at 130 volts. Av. wt., 6 oz.

Stock No.	Mfrs. Type	DC Ma	NET EACH	Lots of 6 EACH
21F250	75	75	.80	.73
21F251	100	100	.92	.84
21F252	150	150	1.01	.92
21F253	200	200	1.25	1.13
21F254	250	250	1.26	1.16
21F255	300	300	1.31	1.20
21F256	400	400	1.66	1.51
21F257	500	500	1.72	1.57
21F258	10	10	.53	.50
21F259	50	50	.56	.51
21F261	65	65	.74	.67

NEWARK can supply all Sarkes-Tarzian Suppressors and Rectifiers whether or not they are listed in this catalog.

RAYTHEON DIODES AND TRANSISTORS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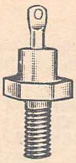
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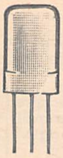
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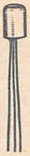
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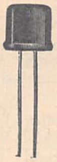
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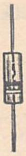
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GERMANIUM AND SILICON TRANSISTORS

Stk. No.	Type	Fig.	Pt. Mw	BV cb	Ic Ma	Description	1-99	100-999
21FX9628	2N155	....	8.5W	—30	—3A	Power	2.83	2.25
20F9534	2N156	....	10W	—30	—3A	Switch	3.75	2.50
20F9535	2N158	....	20W	—60	—3A	Switch	5.25	3.50
21FX9678	2N158A	....	20W	—80	—3A	Switch	6.75	4.50
21F538	2N327A*	A	337	—50	—100	Audio	4.55	3.50
21F539	2N328A*	A	337	—50	—100	Audio	7.48	5.75
21F540	2N329A*	A	337	—50	—100	Audio	15.16	11.50
20F9500	2N332*	A	150	—45	—25	Gen. Pur. Amp.	4.65	3.10
20F9501	2N333*	A	150	—45	—25	Gen. Pur. Amp.	4.65	3.10
20F9502	2N334*	A	150	—45	—25	Gen. Pur. Amp.	4.65	3.10
20F9503	2N335*	A	150	—45	—25	Gen. Pur. Amp.	4.95	3.30
20F9504	2N336*	A	150	—45	—25	Gen. Pur. Amp.	6.00	4.00
21FX9679	2N338	A	125	—45	—20	Gen. Pur. Amp.	5.50	3.65
21FX9629	2N359	....	168	—18	—200	Audio	1.40	.93
21FX9630	2N360	....	168	—24	—200	Audio	1.23	.82
21FX9631	2N361	....	168	—30	—200	Audio	1.06	.77
21F504	2N362	....	168	—20	—400	Audio	.83	.55
21F505	2N363	....	168	—40	—400	AF Driver	.72	.48
21FX9680	2N388	A	150	—25	—200	Switch	1.43	.95
21FX9681	2N388A	A	200	—40	—200	Switch	1.95	1.30
20F9505	2N389*†	....	168	—60	1.5A	Power	45.00	30.00
20F9506	2N395	A	85W	—30	—200	Computer	.93	.62
20F9507	2N396	A	200	—30	—200	Computer	1.35	.90
20F9508	2N397	A	200	—30	—200	Computer	2.67	1.78
21F9550	2N404	....	200	—24	—100	Computer	.90	.60
21FX9682	2N404A	A	150	—40	—150	Switch	1.13	.75
21F511	2N413	....	120	—18	—200	RF Amp	.93	.62
21F495	2N414	....	150	—15	—200	RF Amp	.96	.64
21F496	2N416	....	150	—12	—200	RF Amp	1.80	1.20
21F497	2N417	....	150	—10	—200	RF Amp	2.62	1.75
21F506	2N422	....	150	—20	—100	Audio	1.95	1.30
20F9509	2N424*†	....	150	—80	—1.5A	Power	36.00	24.00
21F9551	2N425	....	85W	—20	—400	Computer	1.20	.80
21F9552	2N426	....	150	—18	—400	Computer	1.35	.90
21F9553	2N427	....	150	—15	—400	Computer	1.80	1.20
21F9554	2N428	....	150	—12	—400	Computer	2.62	1.75
21FX9683	2N438A	A	200	—30	—400	Switch	1.50	1.00
21FX9684	2N440A	A	200	—30	—400	Switch	3.00	2.00
21F9555	2N464	....	150	—40	—400	AF Amp	1.65	1.10
21F9557	2N466	....	168	—20	—400	AF Amp	1.80	1.17
21FX9685	2N497	A	800	60	....	Switch	6.35	4.25
21FX9686	2N498	A	800	100	....	Switch	7.90	5.25
21FX9687	2N582	A	170	—25	....	Switch	1.41	.94
21FX9637	2N631	A	50	—20	—100	Audio	.90	.60
21F9545	2N658	A	175	—24	—1A	Computer	1.95	1.30
21F9548	2N661	A	175	—12	—1A	Computer	4.68	3.12
21FX9645	2N751*	C	166	—20	—50	Gen. Pur.	11.25	7.50
21FX9688	2N905	....	165	—45	—25	Gen. Pur.	18.45	12.30
21F592	2N1034*	A	400	—40	—50	AF Amp	4.22	3.25
21F593	2N1035	A	400	—35	—50	AF Amp	7.15	5.50
21F594	2N1036*	A	400	—30	—50	AF Amp	13.65	10.50
21F595	2N1037*	A	400	—35	—50	AF Amp	6.50	5.00
21FX9689	2N1252	A	600	—30	....	Switch	6.90	4.55
21FX9690	2N1253	A	600	—15	....	Switch	11.95	7.95
21FX9691	2N697	A	600	—60	....	Switch	6.50	4.35
21FX9692	2N697A	A	800	—60	....	Gen. Pur. Amp	16.90	10.90
21FX9693	2N698	A	2W	-120	—500	Switch	7.15	4.75
20F9510	2N705	....	150	—15	—50	Hi-Freq Sw	4.30	2.78
20F9511	2N710	....	150	—15	—50	Hi-Freq Sw	4.30	2.78
20F9512	2N711	....	150	—15	—50	Hi-Freq Sw	2.40	1.60
21FX9694	2N717	....	400	—60	....	Switch	5.65	3.75
21FX9695	2N718	....	400	—60	....	Switch	6.50	4.35
21FX9696	2N718A	....	500	—75	....	Switch	14.90	9.95
21FX9697	2N719	....	1W	-120	—500	Switch	7.15	4.75
21FX9698	2N720	....	400	-120	....	Switch	8.50	5.65
21FX9699	2N730	....	500	—60	....	Power	5.55	3.75
21FX9700	2N731	....	500	—-60	....	Power	6.50	4.35
21FX9639	2N745*†	C	166	—45	—20	Switch	17.75	11.85
21FX9640	2N746*†	C	166	—45	—20	Switch	20.50	13.65
21FX9641	2N747*†	C	166	—25	—50	Switch	22.50	15.00
21FX9642	2N748*†	C	166	—30	—50	Switch	20.25	13.50
21FX9644	2N750*‡	C	166	—50	—50	RF Amp	40.50	27.00
21FX9650	2N1389*†	A	300	—50	—50	RF Amp	27.00	18.00
21FX9713	2N1409	....	3W	—30	—500	Switch	7.25	4.85
21FX9714	2N1410	....	....	—45	—500	Switch	7.65	5.10
21FX9651	2N1468*†	A	270	—40	—20	Avalanche	36.00	24.00
21FX9701	2N1507	A	600	—60	—600	Audio	7.90	5.25

Newark can supply all your Semiconductor needs whether or not they are listed in this catalog.

GERMANIUM AND SILICON TRANSISTORS (Cont.)

Stk. No.	Type	Fig.	Pt Mw	BV V	Ic Ma	Description	1-99	100-999
21FX9653	2N1623*	A	250	—20	—1A	Med. Gain	2.16	1.65
21FX9627	2N1660	....	85W	—60	....	Power	60.00	40.00
20F9513	2N1894*†	....	85W	—60	....	Power	45.00	30.00
20F9514	2N1895*†	....	85W	—80	....	Power	36.00	24.00
20F9515	2N1896*†	....	85W	—60	....	Power	60.00	40.00
20F9516	2N1897*†	....	85W	—80	....	Power	67.50	45.00
20F9517	2N1898*†	....	85W	100	—1A	Power	90.00	60.00
20F9518	2N1605	A	200	—25	—1A	Computer	2.16	1.20
20F9519	2N1954	A	215	—60	—1A	Aud. Sw.	1.80	1.20
20F9520	2N1955	A	215	—60	50	Aud. Sw.	1.95	1.30
20F9521	2N1956	A	215	—60	50	Aud. Sw.	2.18	1.45
20F9522	2N1957	A	215	—60	50	Aud. Sw.	2.70	1.80
21FX9702	2N1983	A	600	—50	50	Med. Gain	6.30	4.85
21FX9703	2N1984	A	600	—50	50	Med. Gain	4.30	3.31
21FX9704	2N1985	A	600	—50	100	Med. Gain	3.30	2.54
21FX9705	2N1986	A	600	—50	100	Med. Gain	4.60	3.54
21FX9706	2N1987	A	600	—50	100	Med. Gain	4.15	3.20
21FX9707	2N1988	A	600	—100		Med. Gain	6.65	5.12
21FX9708	2N1989	A	600	—100	—200	Med. Gain	4.35	3.35
21FX9709	2N1990	A	600	—100	—1A	Med. Gain	3.60	2.
21FX9710	2N2060	....	500	—100	100	Med. Gain	60.00	4
21FX9711	2N2448	....	75	45	45	Med. Gain	2.50	[illegible]
21FX9712	2N2450	....	75	35	35	Med. Gain	3.00	[illegible]
21FX9662	CK22A‡	....	150	—20	—100	AF Amp	3.00	2.0
21FX9663	2N1470*†	....	55W	60	....	Power	57.00	38.00
21FX9664	2N1657*†	....	55W	60	....	Power	57.00	38.00
21F9587	CK67*†	C	168	—15	—400	AF Amp	3.00	2.00
21FX9672	CK67A*†	....	168	—15	—400	AF Amp	3.53	2.35
20F9523	CK419*†	....	337	—40	—100	AF Amp	10.50	7.00
20F9524	CK420*†	....	337	—30	—100	AF Amp	24.00	16.00
20F9525	CK421*†	....	337	—20	—100	AF Amp	36.00	24.00
20F9526	CK474*†	....	250	—40	—50	AF Amp	8.40	5.60
20F9527	CK475*†	....	250	—35	—50	Hi. Gain	11.25	7.50
20F9528	CK476*†	....	250	—30	—50	Hi Gain	17.63	11.75
20F9529	CK477*†	....	250	—35	—50	Low Noise	27.00	18.00
20F9530	CK709A*†	....	....	—60	—50	Diode Quad	11.17	7.70
20F9531	CK711A*†	....	....	—80	—35	Diode Quad	12.50	8.62
20F9532	CK717A*†	....	....	—06	—50	Diode Quad	11.17	7.70
20F9533	CK719A*†	....	....	—80	—35	Diode Quad	12.50	8.62
21F490	CK721*†	....	180	—15	—10	AF Amp	2.40	....
21F491	CK722*†	B	180	—22	—10	AF Amp	.90	....
21F498	CK768*†	....	150	—15	—150	IF Amp	1.50	....
21FX9674	2N1654*†	A	337	—80	—50	Hi Voltage	10.65	8.20

* Silicon, all others are germanium. † NPN. ‡ Subminiature size, .130" H.; .100" Dia.

SILICON AND GERMANIUM DIODES

Stk. No.	Type	Fig.	PIV	Min. Fwd. Ma @ IV	Max. Inv. Current (Ma)	1-99	100-999
21F501	1N306‡	D	15	125	.002@—10v	2.60	2.00
21F9511	1N646§†	......	300	400	.002@—300v	4.05	2.70
21F9512	1N647§†	....	400	400	.002@—400v	5.10	3.40
21F9513	1N648§†	....	500	400	.002@—500v	6.15	4.10
21FX9605	1N1763*†	B	400	400	1@400	.92	.62
21F576	1N34A*	......	60	5	.5@—50v	.35	.23
21F470	1N66*	E	60	5	.8@—50v	.40	.31
21F578	1N66A*	......	60	5	.05@—10v	.40	.31
21F9500	1N82A*	......	5	Noise fig. 14	db max.	1.05	.80
21FX9609	1N90*	E	60	5	.0005@—50v	.41	.27
21F581	1N95*	E	60	10	.8@—50v	.52	.35
21FX9612	1N116*	E	60	5	.0001@—50v	.62	.41
21F582	1N126A*	......	60	5	.05@—10v	.44	.34
21FX9618	1N191*	E	70	5	.00001@—25v	.59	.44
21FX9617	1N192*	E	60	5	.00025@—50v	.53	.41
21FX9619	1N198*	E	80	4	.000075@—10v	.60	.40
21F9501	1N253†	F	95	660	.01@—95v	1.58	1.05
21F9503	1N255†	F	380	335	.01@—380v	3.00	2.00
21F9504	1N256†	F	570	250	.02@—570v	3.71	2.41
21FX9621	1N297A	......	80	35	.1@—50v	.72	.55
21F466	1N300§	D	15	8	.001@—10v	4.55	3.50
21F467	1N301§	D	70	5	.05@—50v	4.55	3.50
21F468	1N302§	D	225	1	.01@—10v	5.20	4.00
21F526	1N302A§	D	225	5	.01@—10v	6.50	5.00
21F469	1N303§	D	125	3	.1@—100v	4.55	3.50
21F500	1N305‡	D	60		.002@—10v	2.60	2.00

* Silicon, all others are germanium. †Diffused junction type. ‡ Gold bonded germ. § Point con. # Peak rectified cur.

It is impossible to issue a directory that will remain entirely unchanged after publication due to the design revisions and rapid price changes which are always occurring in the Semiconductor field. This listing is current as of August 15, 1962.

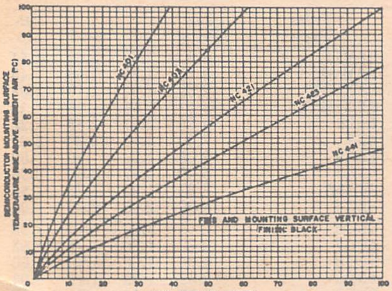
Prices for quantities shown here are competitive with the manufacturer OEM prices.

Orders will be billed to you at those prices in effect at the time of shipment.

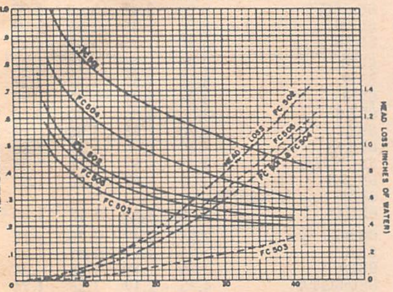
SEMICONDUCTOR COOLING UNITS

WAKEFIELD ENGINEERING SEMICONDUCTOR COOLERS

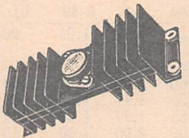
Forced air and natural convection cooling units to provide compact sinks for power transistors and silicon power rectifiers. Mounting of heat sink on chassis by teflon washers allows the transistor or rectifier base to be mounted directly on cooling unit, eliminating inefficient insulating washers. Suffix letter on type number indicates semiconductor mounting holes in unit.—A denotes TO-3 mounting; —B denotes TO-6 or 36 mounting. Lack of suffix indicates blank unit with no semiconductor mounting holes.



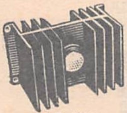
Natural Convections Characteristics
Series NC-400



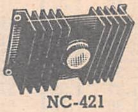
Forced Convection Characteristics
Series FC-500



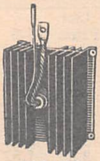
NC-401



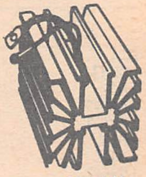
NC-403



NC-421



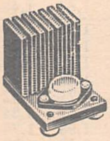
NC-423



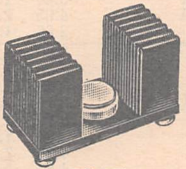
NC-441

NATURAL CONVECTION UNITS

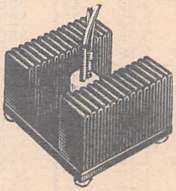
May be used with or without forced air cooling. With convection cooling, thermal resistance is a function of power dissipated, with forced air cooling, a function of air flow. Black finish improves convection dissipating ability. All units provide 1.3" between the two groups of fins for mounting the semiconductor. All units use 4 teflon washers (listed below) for mounting cooling unit on chassis except NC-401 series which uses 3.



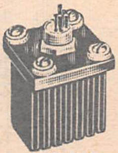
FC-501



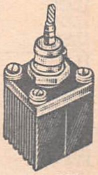
FC-502



FC-503



FC-504



FC-505

FORCED CONVECTION UNITS

Designed primarily for forced air cooling. FC-501 provides 1.25x1.75" for mounting semiconductor. FC-501 uses 3 teflon washers (listed below) for mounting on chassis. FC-502 4 washers. Top cover and air hose adapter available on special order. Height: 1.75"; Width 1.75" except 503 which is 3.5". FC-504 and 505 are for hex type stud mounting semiconductors up to 3/8-24 stud.

SPECIFICATIONS
NATURAL CONVECTION

Stk. No.	Type	D	H	Thermal Res. @ 40 cfm	1-49	50-99	100-249	250-499
58F533	NC-301	.75	2	1.15	1.25	1.05	.85	.70
58F534	NC-302	1.5	2	0.90	1.35	1.15	.95	.80
58F535	NC-303	3.	2	0.76	1.60	1.35	1.10	.95
58F500	NC-401-A	1.25	1.5	0.5	1.90	1.55	1.30	1.05
58F501	NC-401-B	1.25	1.5	0.5	1.90	1.55	1.30	1.05
58F502	NC-401-K	1.25	1.5	0.5	1.60	1.30	1.10	.90
58F503	NC-403-A	1.25	3.	0.25	2.10	1.70	1.35	1.15
58F504	NC-403-B	1.25	3.	0.25	2.10	1.70	1.35	1.15
58F505	NC-403-K	1.25	3.	0.25	1.80	1.45	1.15	.95
58F506	NC-421-A	2.63	3.	0.3	3.05	2.75	2.30	2.10

Stk. No.	Type	D	H	Thermal Res. @ 40 cfm	1-49	50-99	100-249	250-499
58F507	NC-421-B	2.63	3.	0.3	3.05	2.75	2.30	2.10
58F508	NC-421	2.63	3.	0.3	2.75	2.50	2.10	1.90
58F509	NC-423-A	2.63	5.5	0.24	4.15	3.55	3.00	2.80
58F510	NC-423-B	2.63	5.5	0.24	4.15	3.55	3.00	2.80
58F511	NC-423-K	2.63	5.5	0.24	3.85	3.30	2.80	2.60
58F521	NC-441	4.5	5.5	0.15	5.45	4.70	4.05	3.75
58F536	NC-601	1.26	.56	......	1.10	.90	.70	.55
58F537	NC-602	2.01	.56	......	1.20	.95	.75	.60
58F538	NC-621	1.51	.46	......	1.35	1.10	.90	.75
58F539	NC-623	3.01	.46	......	1.50	1.25	1.00	.85
58F540	NC-641	3.01	1.01	......	1.65	1.35	1.10	.90

FORCED AIR

Stock No.	Type	Length	1-49	50-99	100-249	250-499
58F512	FC-501-A	2.25	5.10	4.55	4.25	4.00
58F513	FC-501-B	2.25	4.95	4.40	4.10	3.85
58F514	FC-501-K	2.25	4.60	4.10	3.85	3.60
58F515	FC-502-A	3.50	7.30	6.55	6.15	5.70
58F516	FC-502-B	3.50	7.15	6.40	6.00	5.55

58F518. Type 103 Teflon Washer for mounting cooling unit on chassis. **NET**.......... .05

Stock No.	Type	Length	1-49	50-99	100-249	250-499
58F517	FC-502-K	3.50	6.80	6.10	5.75	5.30
58F522	FC-503	3.50	13.60	12.20	11.50	10.60
58F523	FC-504	1.75	4.20	3.80	3.50	3.35
58F524	FC-505	2.00	6.10	5.35	5.00	4.75

58F519. Type 101 Teflon Washer for mounting cooling unit on chassis. **NET**.......... .07

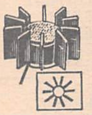
VERTICAL MOUNTING ADAPTERS

For NC-401 and NC-403. 58F525. Per pair.......... .20

For NC-421 and NC-425. 58F526. Per pair.......... .27

FEATHERWEIGHT COOLERS

for ALL milliwatt transistors



Fins provide large cooling area without blocking air flow across case top. Spring action of beryllium copper loops rigidly hold for a uniform thermal contact. Thermal resistance as low as 30°C/W. Two I.D's fit all transistors, covering entire JEDC range.

Stock No.	Model	Fits Case Dias.	Case Temp. Rise (°C) @ 1 Watt Nat. Conv.	Case Temp. Rise (°C) @ 1 Watt 250 Ft/Min.	Max. O.D.	Length	1-49	50-499	500-999	1000-4999
58F527	NF201	.161/.195	63	25	.68	.187	.27	.21	.16	.11
58F528	NF203	.161/.195	49	17	.68	.375	.29	.22	.17	.12
58F529	NF205	.275/.335	61	23	.74	.187	.27	.21	.16	.11
58F530	NF207	.275/.335	47	15	.74	.375	.29	.22	.17	.12
58F531	NF209	.275/.335	33	10	1.28	.431	.34	.29	.23	.18

Tapered Installation Tool for above.
58F322. NET.......... 1.00

DESIGNERS KIT

Answers cooling problems immediately under your conditions.

Supplies standard stock type natural and forced convection units and a six stage modular package complete with fan. All technical data necessary for semiconductor cooling tests on your circuitry within the layouts and environments of your choice is included. Theory & Practice Handbook included.
58F520. NET.......... **38.50**

CHECK NEWARK FOR ALL YOUR SEMICONDUCTOR NEEDS!

RECEIVING TUBES

NEWARK CARRIES COMPLETE LINES OF TUBES

RCA—GE—SYLVANIA

All Tubes are Guaranteed for 12 Months. We will Replace All Defective Tubes Except Burnouts and Broken Ones. Receiving Tubes May Be Assorted for Quantity Prices.

Tube Type	List Price	1-5	6-49	50-up
0Z4	2.40	1.20	1.08	.96
OZ4G	2.60	1.30	1.17	1.04
1A3	4.95	2.47	2.23	1.98
1A5GT	4.25	2.12	1.91	1.70
1A7GT	5.75	2.87	2.59	2.30
1AF4	5.30	2.65	2.38	2.12
1AX2	3.05	1.52	1.37	1.22
1B3GT	2.90	1.45	1.30	1.16
1C5GT	5.30	2.65	2.38	2.12
1DN5	2.50	1.25	1.12	1.00
1G3GT/1B3GT	..2.90	1.45	1.30	1.16
1H5GT	4.15	2.07	1.87	1.66
1J3	2.90	1.45	1.30	1.16
1K3	2.90	1.45	1.30	1.16
1L6	6.80	3.40	3.06	2.72
1LA6	6.20	3.10	2.79	2.48
1LB4	8.65	4.32	3.89	3.46
1LC6	8.30	4.15	3.73	3.32
1LD5	8.40	4.20	3.78	3.36
1LE3	6.40	3.20	2.88	2.56
1LG5	6.20	3.10	2.79	2.48
1LH4	8.05	4.02	3.62	3.22
1LN5	8.15	4.07	3.67	3.26
1N5GT	5.20	2.60	2.34	2.08
1R5	2.70	1.35	1.21	1.08
1S5	2.65	1.32	1.19	1.06
1T4	2.50	1.25	1.12	1.00
1U4	2.50	1.25	1.12	1.00
1U5	2.20	1.10	.99	.88
1V	5.85	2.92	2.63	2.34
1V2	2.10	1.05	.94	.84
1X2A	3.05	1.52	1.37	1.22
1X2B	3.05	1.52	1.37	1.22
2A3	10.50	5.25	4.72	4.20
2AF4B	4.05	2.02	1.82	1.62
2AH2	2.90	1.45	1.30	1.16
2BN4A	2.55	1.27	1.15	1.02
2CW4	4.45	2.22	2.00	1.78
2CY5	2.85	1.42	1.28	1.14
2EN5	2.10	1.05	.94	.84
2ER5	3.50	1.75	1.57	1.40
2FQ5A	4.05	2.02	1.82	1.62
2FS5	3.10	1.55	1.39	1.24
2FY5	2.80	1.40	1.26	1.12
3A2	4.85	2.42	2.18	1.94
3A3	3.40	1.70	1.53	1.36
3AF4A	4.05	2.02	1.82	1.62
3AL5	1.85	.92	.83	.74
3AU6	2.15	1.07	.97	.86
3AV6	1.75	.87	.79	.70
3B2	9.85	4.92	4.43	3.94
3BC5	2.35	1.17	1.06	.94
3BE6	2.25	1.12	1.01	.90
3BN4A	2.55	1.27	1.15	1.02
3BN6	3.05	1.52	1.37	1.22
3BU8	2.85	1.42	1.28	1.14
3BY6	2.35	1.17	1.06	.94
3BZ6	2.30	1.15	1.03	.92
3CB6	2.30	1.15	1.03	.92
3CE5	2.35	1.17	1.06	.94
3CF6	2.55	1.27	1.15	1.02
3CS6	2.45	1.22	1.10	.98
3CY5	2.85	1.42	1.28	1.14
3D6	9.75	4.87	4.39	3.90
3DG4	3.40	1.70	1.53	1.36
3DK6	2.40	1.20	1.08	.96
3DT6A	2.20	1.10	.99	.88
3EH7 See XF183/3EH7				
3E17 See XF184/3EJ7				
3ER5	3.50	1.75	1.57	1.40
3LF4	6.40	3.20	2.88	2.56
3Q4	3.55	1.77	1.60	1.42
3Q5GT	5.65	2.82	2.54	2.26
3S4	2.65	1.32	1.19	1.06
3V4	2.50	1.25	1.12	1.00
4AU6	2.15	1.07	.97	.86
4AV6	1.70	.85	.76	.68
4BC5	2.35	1.17	1.06	.94
4BC8	4.05	2.02	1.82	1.62
4BN6	3.05	1.52	1.37	1.22
4BQ7A	4.20	2.10	1.89	1.68
4BS8	3.85	1.92	1.73	1.54
4BU8	2.85	1.42	1.28	1.14
4BZ6	2.25	1.12	1.01	.90
4BZ7	4.05	2.02	1.82	1.62
4CB6	2.30	1.15	1.03	.92
4CS6	2.35	1.17	1.06	.94
4CY5	2.85	1.42	1.28	1.14
4DE6	2.65	1.32	1.19	1.06

Tube Type	List Price	1-5	6-49	50-up
4DT6A	2.25	1.12	1.01	.90
4EH7 See YF183/4EH				
4EJ8 See YF184/4EJ8				
4ES8	4.60	2.30	2.07	1.84
4EW6	2.35	1.17	1.06	.94
5AM8	3.55	1.77	1.60	1.42
5AN8	4.00	2.00	1.80	1.60
5AQ5	2.20	1.10	.99	.88
5AS4A	2.65	1.32	1.19	1.06
5AS8	4.15	2.07	1.87	1.66
5AT8	3.65	1.82	1.64	1.46
5AU4	3.40	1.70	1.53	1.36
5AV8	4.05	2.02	1.82	1.62
5AW4	2.80	1.40	1.26	1.12
5AZ4	5.65	2.82	2.54	2.26
5B8	5.30	2.65	2.38	2.12
5BE8	3.30	1.65	1.48	1.32
5BK7A	3.40	1.70	1.53	1.36
5BQ7A	4.05	2.02	1.82	1.62
5BR8	3.65	1.82	1.64	1.46
5BT8	3.30	1.65	1.48	1.32
5BW8	3.40	1.70	1.53	1.36
5CG8	3.25	1.62	1.46	1.30
5CL8A	3.15	1.57	1.42	1.26
5CM8	3.80	1.90	1.71	1.52
5CQ8	3.35	1.67	1.51	1.34
5CZ5	4.35	2.17	1.96	1.74
5DH8	4.50	2.25	2.02	1.80
5DJ4	2.20	1.10	.99	.88
5EA8	3.15	1.57	1.42	1.26
5EU8	3.35	1.67	1.51	1.34
5EW6	2.35	1.17	1.06	.94
5FG7	2.75	1.38	1.24	1.10
5GM6	2.40	1.20	1.08	.96
5J6	2.85	1.42	1.28	1.14
5T4	12.10	6.05	5.44	4.84
5T8	3.40	1.70	1.53	1.36
5U4G	2.10	1.05	.94	.84
5U4GB	2.10	1.05	.94	.84
5U8	3.30	1.65	1.48	1.32
5V3A	3.85	1.92	1.73	1.54
5V4GA	3.50	1.75	1.57	1.40
5V6GT	2.20	1.10	.99	.88
5X4G	3.35	1.67	1.51	1.34
5X8	3.30	1.65	1.48	1.32
5Y3GT	1.75	.87	.79	.70
5Y4GA	2.60	1.30	1.17	1.04
5Y4GT	2.65	1.32	1.19	1.06
5Z3	3.30	1.65	1.48	1.32
5Z4	8.35	4.17	3.76	3.34
6A7	8.50	4.25	3.82	3.40
6A8	6.85	3.42	3.08	2.74
6A8GT	8.60	4.30	3.87	3.44
6AB4	2.15	1.07	.97	.86
6AB5/6N5	8.05	4.02	3.62	3.22
6AB7	8.25	4.12	3.71	3.30
6AC5GT	6.25	3.12	2.81	2.50
6AC7	5.10	2.55	2.29	2.04
6AD7G	9.40	4.70	4.23	3.76
6AF3	2.90	1.45	1.30	1.16
6AF4A	4.00	2.00	1.80	1.60
6AF6G	6.20	3.10	2.79	2.48
6AG5	2.75	1.37	1.24	1.10
6AG7	6.20	3.10	2.79	2.48
6AG11	3.55	1.77	1.60	1.42
6AH4GT	3.45	1.72	1.55	1.38
6AH6	4.70	2.35	2.11	1.88
6AK5	4.40	2.20	1.98	1.76
6AL5	1.85	.92	.83	.74
6AL7GT	5.75	2.87	2.59	2.30
6AM4A	5.90	2.95	2.66	2.39
6AM8A	3.45	1.72	1.55	1.38
6AN8A	4.00	2.00	1.80	1.60
6AQ5A	2.15	1.07	.97	.86
6AQ6	2.60	1.30	1.17	1.04
6AQ7GT	4.00	2.00	1.80	1.60
6AR5	2.65	1.32	1.19	1.06
6AR11	4.25	2.12	1.91	1.70
6AS5	2.40	1.20	1.08	.96
6AS8	3.80	1.90	1.71	1.52
6AS11	4.55	2.27	2.05	1.82
6AT6	1.90	.95	.85	.76
6AT8A	3.80	1.90	1.71	1.52
6AU4GTA	3.60	1.80	1.62	1.44
6AU5GT	4.30	2.15	1.93	1.72
6AU6A	2.10	1.05	.94	.84
6AU8A	3.50	1.75	1.57	1.40
6AV5GA	4.00	2.00	1.80	1.60
6AV6	1.65	.82	.74	.66

Tube Type	List Price	1-5	6-49	50-up
6AV11	3.60	1.80	1.62	1.44
6AW8A	3.70	1.85	1.66	1.48
6AX4GT	2.65	1.32	1.19	1.06
6AX5GTB	3.10	1.55	1.39	1.24
6AZ8	5.55	2.77	2.50	2.22
6B8	7.30	3.65	3.28	2.92
6BA6	2.00	1.00	.90	.80
6BA7	5.95	2.97	2.68	2.38
6BA8A	3.85	1.92	1.73	1.54
6BC4	4.90	2.45	2.20	1.96
6BC5	2.55	1.27	1.15	1.02
6BC7	3.80	1.90	1.71	1.52
6BC8	4.00	2.00	1.80	1.60
6BD6	2.45	1.22	1.10	.98
6BE6	2.20	1.10	.99	.88
6BF5	3.55	1.77	1.60	1.42
6BF6	1.80	.90	.81	.72
6BG6G	6.80	3.40	3.06	2.72
6BH6	2.70	1.35	1.21	1.08
6BH8	3.50	1.75	1.57	1.40
6BJ6	2.60	1.30	1.17	1.04
6BJ7	3.15	1.57	1.42	1.26
6BJ8	3.50	1.75	1.57	1.40
6BK4	8.00	4.00	3.60	3.20
6BK5	3.70	1.85	1.66	1.48
6BK7B	3.40	1.70	1.53	1.36
6BL7GTA	3.95	1.97	1.78	1.58
6BL8A	3.95	1.97	1.78	1.58
6BM8 See ECL82/6BM8				
6BN4A	2.50	1.25	1.12	1.00
6BN6	2.95	1.47	1.33	1.18
6BN8	3.05	1.52	1.37	1.22
6BQ5	2.35	1.17	1.06	.94
6BQ6GTA	4.35	2.17	1.96	1.74
6BQ6GA	4.35	2.17	1.96	1.74
6BQ6GTB/6CU6	4.35	2.17	1.96	1.74
6BQ7A	3.95	1.97	1.78	1.58
6BR8A	3.65	1.82	1.64	1.46
6BS8	3.75	1.87	1.69	1.50
6BU8	2.80	1.40	1.26	1.12
6BV8	3.15	1.57	1.42	1.26
6BW4	2.90	1.45	1.30	1.16
6BW8	3.50	1.75	1.57	1.40
6BX7GT	4.00	2.00	1.80	1.60
6BY5GA	5.10	2.55	2.29	2.04
6BY6	2.50	1.25	1.12	1.00
6BY8	2.65	1.32	1.19	1.06
6BZ6	2.25	1.12	1.01	.90
6BZ7	4.00	2.00	1.80	1.60
6BZ8	4.45	2.22	2.00	1.78
6C4	1.85	.92	.83	.74
6C5	4.25	2.12	1.91	1.70
6C6	8.30	4.15	3.73	3.32
6C8G	8.55	4.27	3.85	3.42
6C10	3.60	1.80	1.62	1.44
6CA4	1.95	.97	.88	.78
6CA5	3.15	1.57	1.42	1.26
6CB5A	8.25	4.12	3.71	3.30
6CB6A	2.25	1.12	1.01	.90
6CE5/6BC5	2.35	1.17	1.06	.94
6CD6GA	5.80	2.90	2.61	2.32
6CF6	2.55	1.27	1.15	1.02
6CG7	2.45	1.22	1.10	.98
6CG8A	3.30	1.65	1.48	1.32
6CH8	5.20	2.60	2.34	2.08
6CK4	3.00	1.50	1.35	1.20
6CL6	3.75	1.87	1.69	1.50
6CL8A	3.15	1.57	1.42	1.26
6CM6	3.30	1.65	1.48	1.32
6CM7	2.90	1.45	1.30	1.16
6CM8	4.25	2.12	1.91	1.70
6CN7	2.75	1.37	1.24	1.10
6CQ8	3.30	1.65	1.48	1.32
6CR6	2.40	1.20	1.08	.96
6CS6	2.35	1.17	1.06	.94
6CS7	2.95	1.47	1.33	1.18
6CU5	2.35	1.17	1.06	.94
6CU6 See 6BO6GTB/6CU6				
6CU8	4.15	2.07	1.87	1.66
6CW4	4.45	2.22	2.00	1.78
6CW5	3.50	1.75	1.57	1.40
6CX8	3.65	1.82	1.64	1.46
6CY5	2.75	1.37	1.24	1.10
6CY7	3.20	1.60	1.44	1.28
6CZ5	4.10	2.05	1.84	1.64
6D6	7.80	3.90	3.51	3.12
6D10	3.75	1.87	1.69	1.50
6DA4	2.70	1.35	1.21	1.08
6DB5	5.30	2.65	2.38	2.12

RECEIVING TUBES

RCA—GE—SYLVANIA

All Tubes are Guaranteed for 12 Months. We will Replace All Defective Tubes Except Burnouts and Broken Ones. Receiving Tubes May Be Assorted for Quantity Prices.

Tube Type	List Price	1-5	6-49	50-up
6DB6	2.15	1.07	.97	.86
6DC6	3.40	1.70	1.53	1.36
6DE4	2.80	1.40	1.26	1.12
6DE6	2.55	1.27	1.15	1.02
6DG6GT	2.55	1.27	1.15	1.02
6DK6	2.35	1.17	1.06	.94
6DN6	7.45	3.72	3.35	2.98
6DN7	3.50	1.75	1.57	1.40
6DQ5	8.35	4.17	3.76	3.34
6DQ6A	4.15	2.07	1.87	1.66
6DQ6B	4.15	2.07	1.87	1.66
6DR7	3.40	1.70	1.53	1.36
6DS5	3.20	1.60	1.44	1.28
6DT5	3.25	1.62	1.46	1.30
6DT6A	2.15	1.07	.97	.86
6DT8	3.80	1.90	1.71	1.52
6DW5	4.05	2.02	1.82	1.62
6DX8 See ECL84/6DX8				
6E5	4.45	2.22	2.00	1.78
6EA7	3.45	1.72	1.55	1.38
6EA8	2.70	1.35	1.21	1.08
6EB8	3.70	1.85	1.66	1.48
6EH5	2.90	1.45	1.30	1.16
6EH7 See EF183/6TH7				
6EH8	3.15	1.57	1.42	1.26
6EJ7 See EF184/6EJ7				
6EM5	3.40	1.70	1.53	1.36
6EM7	5.10	2.55	2.29	2.04
6EQ7	2.90	1.45	1.30	1.16
6ER5	3.50	1.75	1.57	1.40
6ES5	3.05	1.52	1.37	1.22
6ES8	5.80	2.90	2.61	2.32
6EU7	2.60	1.30	1.17	1.04
6EU8	3.30	1.65	1.48	1.32
6EV5	3.00	1.50	1.35	1.20
6EV7	2.50	1.25	1.12	1.00
6EW6	2.30	1.15	1.03	.92
6EW7	3.90	1.95	1.75	1.56
6EY6	3.15	1.57	1.42	1.26
6EZ5	3.40	1.70	1.53	1.36
6EZ8	3.80	1.90	1.71	1.52
6F5	4.60	2.30	2.07	1.84
6F6	5.85	2.92	2.63	2.34
6F6G	5.85	2.92	2.63	2.34
6F6GT	5.85	2.92	2.63	2.34
6F7	11.70	5.85	5.26	4.68
6F8G	8.95	4.47	4.03	3.58
6FA7	2.50	1.25	1.12	1.00
6FD7	5.05	2.52	2.27	2.02
6FG6 See EM84/6FG6				
6FG7	2.75	1.37	1.24	1.10
6FH5	2.55	1.27	1.15	1.02
6FH8	3.30	1.65	1.48	1.32
6FJ7	3.35	1.67	1.51	1.34
6FM8	3.00	1.50	1.35	1.20
6FQ5A	4.05	2.02	1.82	1.62
6FQ7	2.30	1.15	1.03	.92
6FS5	3.05	1.52	1.37	1.22
6FV6	3.55	1.77	1.60	1.42
6FV8	3.15	1.57	1.42	1.26
6FW5	4.10	2.05	1.84	1.64
6FW8 See 6ES8				
6FY5	2.80	1.40	1.26	1.12
6GE5	3.80	1.90	1.71	1.52
6GF5	3.70	1.85	1.66	1.48
6GH8	3.15	1.57	1.42	1.26
6GJ5	4.55	2.27	2.05	1.82
6GK5	4.05	2.02	1.82	1.62
6GK6	2.75	1.37	1.24	1.10
6GM6	2.40	1.20	1.08	.96
6GN8	3.70	1.85	1.66	1.48
6GW6	4.15	2.07	1.87	1.66
6GY8	3.80	1.90	1.71	1.52
6G11	3.95	1.97	1.78	1.58
6H6	4.00	2.00	1.80	1.60
6HF8	3.70	1.85	1.66	1.48
6HS8	2.80	1.40	1.26	1.12
6HZ8	4.35	2.17	1.96	1.74
6J5	3.65	1.82	1.64	1.46
6J5GT	3.65	1.82	1.64	1.46
6J6A	2.80	1.40	1.26	1.12
6J7	4.95	2.47	2.23	1.98
6J7GT	4.95	2.47	2.23	1.98
6JC8	2.90	1.45	1.30	1.16
6JH8	4.35	2.17	1.96	1.74
6JK8	3.35	1.67	1.51	1.34
6J11	4.35	2.17	1.96	1.74
6K6GT	2.65	1.32	1.19	1.06
6K7	4.95	2.47	2.23	1.98
6K7GT	4.95	2.47	2.23	1.98
6K8	7.50	3.75	3.37	3.00
6K11	3.55	1.77	1.60	1.42
6L6	8.60	4.30	3.87	3.44
6L6GC	4.20	2.10	1.89	1.68
6L7	7.35	3.67	3.31	2.94
6N7	5.00	2.50	2.25	2.00
6N7GT	5.00	2.50	2.25	2.00
6Q7	5.30	2.65	2.38	2.12
6Q7GT	5.65	2.82	2.54	2.26
6R7	5.45	2.72	2.45	2.18
6S4A	2.05	1.02	.92	.82
6S7	7.20	3.60	3.24	2.88
6S8GT	4.40	2.20	1.98	1.76
6SA7	4.30	2.15	1.93	1.72
6SA7GT	4.30	2.15	1.93	1.72
6SB7Y	6.30	3.15	2.83	2.52
6SC7	4.20	2.10	1.89	1.68
6SF5	3.70	1.85	1.66	1.48
6SF5GT	3.20	1.60	1.44	1.28
6SF7	6.25	3.12	2.81	2.50
6SG7	4.60	2.30	2.07	1.84
6SH7	4.45	2.22	2.00	1.78
6SJ7	4.15	2.07	1.87	1.66
6SJ7GT	4.15	2.07	1.87	1.66
6SK7	3.95	1.97	1.78	1.58
6SK7GT	3.95	1.97	1.78	1.58
6SL7GT	3.50	1.75	1.57	1.40
6SN7GTB	2.60	1.30	1.17	1.04
6SQ7	3.75	1.87	1.69	1.50
6SQ7GT	3.80	1.90	1.71	1.52
6SR7	3.90	1.95	1.75	1.56
6SS7	5.50	2.75	2.47	2.20
6T4	5.45	2.72	2.45	2.18
6T8A	3.40	1.70	1.53	1.36
6U5	5.55	2.77	2.50	2.22
6U8A	3.30	1.65	1.48	1.32
6V3A	4.55	2.27	2.05	1.82
6V6	6.75	3.37	3.04	2.70
6V6GTA	2.15	1.07	.97	.86
6V8	3.95	1.97	1.78	1.58
6W4GT	2.40	1.20	1.08	.96
6W6GT	2.85	1.42	1.28	1.14
6X4	1.65	.82	.74	.66
6X5GT	2.10	1.05	.94	.84
6X8	3.15	1.57	1.42	1.26
6Y6G	4.30	2.15	1.93	1.72
6Y6GA	4.30	2.15	1.93	1.72
6Y6GT	3.45	1.72	1.55	1.38
6Z4 See 84/6Z4				
7A4	7.50	3.75	3.37	3.00
7A5	6.00	3.00	2.70	2.40
7A6	7.40	3.70	3.33	2.96
7A7	7.55	3.77	3.40	3.02
7A8	8.25	4.12	3.71	3.30
7AF7	6.00	3.00	2.70	2.40
7AG7	8.40	4.20	3.78	3.36
7AH7	6.40	3.20	2.88	2.56
7AU7	2.60	1.30	1.17	1.04
7B4	7.20	3.60	3.24	2.88
7B5	8.85	4.42	3.98	3.54
7B6	5.60	2.80	2.52	2.24
7B7	8.10	4.05	3.64	3.24
7B8	5.95	2.97	2.68	2.38
7C5	3.50	1.75	1.57	1.40
7C6	7.75	3.87	3.49	3.10
7C7	3.60	1.80	1.62	1.44
7E7	6.70	3.35	3.01	2.68
7EY6	3.15	1.57	1.42	1.26
7F7	7.95	3.97	3.58	3.18
7F8	8.75	4.37	3.94	3.50
7H7	6.40	3.20	2.88	2.56
7K7	8.60	4.30	3.87	3.44
7L7	6.40	3.20	2.88	2.56
7N7	7.55	3.77	3.40	3.02
7Q7	6.20	3.10	2.79	2.48
7S7	6.85	3.42	3.08	2.74
7V7	4.90	2.45	2.20	1.96
7W7	7.00	3.50	3.15	2.80
7X7	8.10	4.05	3.64	3.24
7Y4	7.15	3.57	3.22	2.86
7Z4	6.90	3.45	3.10	2.76
8AU8A	4.05	2.02	1.82	1.62
8AW8A	3.70	1.85	1.66	1.48
8BA8A	3.65	1.82	1.64	1.46
8BH8	3.55	1.77	1.60	1.42
8BN8	3.25	1.62	1.46	1.30
8BQ5	2.40	1.20	1.08	.96
8CG7	2.50	1.25	1.12	1.00
8CM7	2.90	1.45	1.30	1.16
8CN7	2.80	1.40	1.26	1.12
8CX8	3.85	1.92	1.73	1.54
8EB8	3.75	1.87	1.69	1.50
8ET7	4.40	2.20	1.98	1.76
8FQ7	2.35	1.17	1.06	.94
8GN8	3.75	1.87	1.69	1.50
9AU7	2.80	1.40	1.26	1.12
9CL8	3.15	1.57	1.42	1.26
10C8	4.25	2.12	1.91	1.70
10DE7	3.40	1.70	1.53	1.36
10EG7	4.60	2.30	2.07	1.84
10HF8	3.75	1.87	1.69	1.50
11CY7	3.25	1.62	1.46	1.30
12A8GT	8.85	4.42	3.98	3.54
12AB5	2.45	1.22	1.10	.98
12AC6	2.20	1.10	.99	.88
12AD6	2.40	1.20	1.08	.96
12AE6A	2.05	1.02	.92	.82
12AE7	3.75	1.87	1.69	1.50
12AF3	2.90	1.45	1.30	1.16
12AF6	2.35	1.17	1.06	.94
12AH7GT	5.55	2.77	2.50	2.22
12AL5	1.90	.95	.85	.76
12AL8	6.55	3.27	2.95	2.62
12AQ5	2.60	1.30	1.17	1.04
12AT6	1.85	.92	.83	.74
12AT7	3.05	1.52	1.37	1.22
12AU6	2.15	1.07	.97	.86
12AU7A	2.45	1.22	1.10	.98
12AV5GA	3.85	1.92	1.73	1.54
12AV6	1.65	.82	.74	.66
12AV7	3.55	1.77	1.60	1.42
12AW6	3.30	1.65	1.48	1.32
12AX4GTA	2.70	1.35	1.21	1.08
12AX4GTB	2.70	1.35	1.21	1.08
12AX7A	2.55	1.27	1.15	1.02
12AY7	5.00	2.50	2.25	2.00
12AZ7A	3.05	1.52	1.37	1.22
12B4A	2.70	1.35	1.21	1.08
12BA6	1.65	.82	.74	.66
12BA7	5.95	2.97	2.68	2.38
12BD6	2.45	1.22	1.10	.98
12BE6	1.75	.87	.79	.70
12BF6	2.20	1.10	.99	.88
12BH7A	3.05	1.52	1.37	1.22
12BK5	4.00	2.00	1.80	1.60
12BL6	2.30	1.15	1.03	.92
12BQ6GTB	4.50	2.25	2.02	1.80
12BQ6GTB/12CU6	4.45	2.22	2.00	1.78
12BR7	3.20	1.60	1.44	1.28
12BV7	3.20	1.60	1.44	1.28
12BW4	2.90	1.45	1.30	1.16
12BY7A	3.05	1.52	1.37	1.22
12BZ6	3.10	1.55	1.39	1.24
12BZ7	4.40	2.20	1.98	1.76
12C8	9.70	4.85	4.36	3.88
12CA5	2.50	1.25	1.12	1.00
12CN5	3.45	1.72	1.55	1.38
12CR6	2.40	1.20	1.08	.96
12CU5/12C5	2.35	1.17	1.06	.94
12CU6 See 12BQ6GTB/12CU6				
12D4	2.75	1.37	1.24	1.10
12DB5	2.75	1.37	1.24	1.10
12DQ6B	4.20	2.10	1.89	1.68
12DQ7	3.45	1.72	1.55	1.38
12DS7	3.40	1.70	1.53	1.36
12DT5	3.05	1.52	1.37	1.22
12DT8	3.80	1.90	1.71	1.52
12DU7	4.05	2.02	1.82	1.62
12DZ6	2.55	1.27	1.15	1.02
12EC8	3.60	1.80	1.62	1.44
12ED5	2.85	1.42	1.28	1.14
12EG6	2.55	1.27	1.15	1.02
12EK6	2.55	1.27	1.15	1.02
12EL6	2.00	1.00	.90	.80
12EM6	3.05	1.52	1.37	1.22
12EN6	3.05	1.52	1.37	1.22
12EZ6	2.30	1.15	1.03	.92
12F8	2.75	1.37	1.24	1.10
12FM6	2.00	1.00	.90	.80
12FQ8	2.95	1.47	1.33	1.18
12FX8	3.80	1.90	1.71	1.52
12H6	3.95	1.97	1.78	1.58
12J5	3.65	1.82	1.64	1.46
12J5GT	4.35	2.17	1.96	1.74
12J7GT	7.40	3.70	3.33	2.96
12J8	4.60	2.30	2.07	1.84
12K5	2.95	1.47	1.33	1.18

Newark Can Supply All Receiving Type Tubes As They Are Available

RECEIVING TUBES AND FANS

NEWARK CARRIES COMPLETE
LINES OF TUBES

RCA-GE-SYLVANIA RECEIVING TUBES (Cont.)

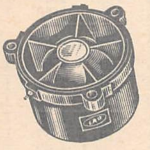
Tube Type	List Price	1-5	6-49	50-up
12K7GT	7.00	3.50	3.15	2.80
12K8	8.70	4.35	3.91	3.48
12L6GT	2.50	1.25	1.12	1.00
12Q7GT	5.80	2.90	2.61	2.32
12R5	3.10	1.55	1.39	1.24
12SA7	4.30	2.15	1.93	1.72
12SA7GT	4.30	2.15	1.93	1.72
12SC7	5.50	2.75	2.47	2.20
12SF5	4.10	2.05	1.84	1.64
12SF7	6.60	3.30	2.97	2.64
12SG7	4.65	2.32	2.09	1.86
12SH7	5.75	2.87	2.59	2.30
12SJ7	4.20	2.10	1.89	1.68
12SJ7GT	4.20	2.10	1.89	1.68
12SK7	3.95	1.97	1.78	1.58
12SK7GT	3.95	1.97	1.78	1.58
12SL7GT	3.75	1.87	1.69	1.50
12SN7GT	2.70	1.35	1.21	1.08
12SN7GTA	2.70	1.35	1.21	1.08
12SQ7	3.75	1.87	1.69	1.50
12SQ7GT	3.75	1.87	1.69	1.50
12U7	2.65	1.32	1.19	1.06
12V6GT	2.15	1.07	.97	.86
12W6GT	3.00	1.50	1.35	1.20
12X4	1.90	.95	.85	.76
13DE7	3.40	1.70	1.53	1.36
13DR7	3.40	1.70	1.53	1.36
13EM7	4.75	2.37	2.14	1.90
14A7	5.90	2.95	2.65	2.36
14B6	5.60	2.80	2.52	2.24
14C7	6.00	3.00	2.70	2.40
14F7	8.15	4.07	3.67	3.26
14F8	6.70	3.35	3.01	2.68
14GT8	3.00	1.50	1.35	1.20
14Q7	6.20	3.10	2.79	2.48
14R7	7.20	3.60	3.24	2.88
15EW6	2.80	1.40	1.26	1.12
17AX4GT	2.70	1.35	1.21	1.08
17BQ6GTB	5.55	2.77	2.50	2.22
17D4	2.75	1.37	1.24	1.10
17DE4	2.85	1.42	1.28	1.14
17DM4	2.85	1.42	1.28	1.14
17DQ6B	4.20	2.10	1.89	1.68
17EW8	2.80	1.40	1.26	1.12
17GW6	4.25	2.12	1.91	1.70
18FY6	1.65	.82	.74	.66
19AU4	3.50	1.75	1.57	1.40
19AU4GTA	3.45	1.72	1.55	1.38
19BG6GA	6.50	3.25	2.92	2.60
19CL8A	3.15	1.57	1.42	1.26
19EA8	3.25	1.62	1.46	1.30
19EZ8	3.80	1.90	1.71	1.52
19HV8	3.80	1.90	1.71	1.52
19JN8	3.20	1.60	1.44	1.28
19T8	3.40	1.70	1.53	1.36
19X8	4.35	2.17	1.96	1.74
22DE4	3.10	1.55	1.39	1.24
24A	6.60	3.30	2.97	2.64
25AV5GA	4.25	2.12	1.91	1.70
25AX4GT	2.90	1.45	1.30	1.16
25BK5	3.65	1.82	1.64	1.46
25BQ6A	4.65	2.32	2.09	1.86
25BQ6GTB	4.60	2.30	2.07	1.84
25BQ6GTB/25CU6	4.65	2.32	2.09	1.86
25C5	2.15	1.07	.97	.86
25CA5	2.60	1.30	1.17	1.04
25CD6GB	5.85	2.92	2.63	2.34
25DN6	5.55	2.77	2.50	2.22
25EH5	2.30	1.15	1.03	.92
25L6	8.85	4.42	3.98	3.54
25L6GT	2.35	1.17	1.06	.94
25W4GT	2.70	1.35	1.21	1.08
25Z5	4.60	2.30	2.07	1.84
25Z6GT	2.90	1.45	1.30	1.16
27	5.40	2.70	2.43	2.16
32ET5	2.20	1.10	.99	.88
35A5	6.00	3.00	2.70	2.40
35B5	3.40	1.70	1.53	1.36
35C5	2.15	1.07	.97	.86
35EH5	2.30	1.15	1.03	.92
35GL6	2.30	1.15	1.03	.92
35L6GT	2.40	1.20	1.08	.96
35W4	1.05	.52	.47	.42
35Y4	4.80	2.40	2.16	1.92
35Z3	5.00	2.50	2.25	2.00
35Z4GT	2.70	1.35	1.21	1.08
35Z5GT	1.85	.92	.83	.74
36AM3	1.50	.75	.67	.60
41	5.80	2.90	2.61	2.32
42	5.15	2.57	2.32	2.06
43	7.60	3.80	3.42	3.04
47	9.15	4.57	4.12	3.66
50A1	6.65	3.32	2.99	2.66
50A5	6.25	3.12	2.81	2.50
50B5	2.95	1.47	1.33	1.18
50C5	2.15	1.07	.97	.86
50DC4	1.55	.77	.70	.62
50EH5	2.30	1.15	1.03	.92
50HK6	2.30	1.15	1.03	.92
50L6GT	2.55	1.27	1.15	1.02
50X6	6.20	3.10	2.79	2.48
50Y6GT	4.60	2.30	2.07	1.84
50Y7GT	4.50	2.25	2.02	1.80
60FX5	2.50	1.25	1.12	1.00
70L7GT	10.15	5.07	4.57	4.06
75	6.80	3.40	3.06	2.72
78	7.20	3.60	3.24	2.88
80	4.20	2.10	1.89	1.68
83	2.65	1.32	1.19	1.06
84/6Z4	3.65	1.82	1.64	1.46
117L7GT	10.15	5.07	4.57	4.06
117N7GT	13.60	6.80	6.12	5.44
117P7GT	13.60	6.80	6.12	5.44
117Z3	4.35	2.17	1.96	1.74
117Z6GT	7.10	3.55	3.19	2.84
6973	4.50	2.25	2.02	1.80
7025	2.95	1.47	1.33	1.18
7027A	6.60	3.30	2.97	2.64
7199	3.70	1.85	1.66	1.48
7591	2.95	1.47	1.33	1.18
7695	4.40	2.20	1.98	1.76
XF183/3EH7	2.90	1.45	1.30	1.16
XF184/3EJ7	2.90	1.45	1.30	1.16
YF183/4EH7	2.90	1.45	1.30	1.16
YF184/4EJ8	2.90	1.45	1.30	1.16
ECL82/6BM8	3.20	1.60	1.44	1.28
ECL84/6DX8	3.20	1.60	1.44	1.28
EF183/6EH7	2.90	1.45	1.30	1.16
EF184/6EJ7	2.90	1.45	1.30	1.16
EM84/6FG6	2.95	1.47	1.33	1.18

PAMOTOR AXIAL FAN

Model 1000. A precision 115 volt AC, 60 cps, 3300 RPM axial fan that can be mounted for either vertical or horizontal operation. Motor reverses itself by interchanging lead wires. Symmetrical three-phase winding. The winding for each pole is subdivided in several cord section exactly parallel wound and with multiple insulation. With 6mfd capacitor. Input power: 23 watts. Dimensions: 4.4"Wx4.4"Hx1.9"D. Shpg. Wt., 3 lbs.

Stock No.	Model	1-9	10-24	25-49
58F850	1000	29.95	26.97	23.95

EASTERN AIR DEVICES



V-LINE VANE AXIAL BLOWERS

Designed to provide maximum air delivery in a small package. Life in excess of 1000 hrs. at 125°C. Meets all applicable MIL specs. All parts are anodized. Nickel steel laminations used throughout. Power input: 40W, 2 pole; 8W, 4 pole. 2" dia. x 1.5"L.

Model V1HJ-G8-3C. 115 volt, 400 cycles, single phase. Delivers 60 CFM @ 0" SP. 20,000 RPM. 0.4 amps, 40 watts. Capacitor (not supplied) 0.5 MFD. Ambient temperature; —55°C to +125°C. Weight 4.3 oz.

Stk. No.	Type	1-10	11-24	25-49	50-99
91F999	V1HJ-G8-3C	42.50	40.95	39.38	36.23

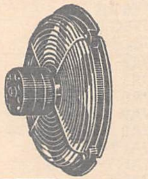
Model V1HK-E8-2C. 115 volts, 400 cycles, single phase. Delivers 34 CFM @ SP. 10,000 RPM. 0.07 amps, 8 watts. Capacitor (not supplied) 0.15 MFD. Ambient temperature range; —55°C to +125°C, Weight, 4.3 oz.

91F998	V1HK-E8-2C	42.50	40.95	39.38	36.23

Model V-HJ-G8-2C. 200 volt, 400 cycles, three phase. Delivers 60 CFM @ 0" SP. 20,000 RPM. 0.13 amps, 37 watts. Ambient temperature range; —55°C to +125°C. Weight, 4.3 oz.

91F997	V1HJ-G8-2C	42.50	40.95	39.38	36.23

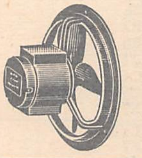
COMMERCIAL AXIAL FLOW FAN



Model F5GB-U2-2CC. High volume axial flow fan delivers 450 CFM. Ideal for commercial and industrial applications where amb. temps. do not exceed 150°F. Convenient mounting holes provided on cast ring. Ball bearing construction. No capacitor required. Low noise level at 1600 rpm. Shroud dia. 12$\frac{1}{8}$". Length 7". 115 volts 60 cycle. Draws 1.0 amps. Weight, 7 lbs.

Stk. No.	Type	1-10	11-24	25-49	50-99
91F996	F5GB-U2-2CC	38.50	33.00	29.50	26.75

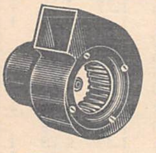
30 FRAME AXIAL FLOW FAN



Model F2HA-M1-3C. Delivers 120 CFM @ 0" SP. Meets applicable MIL specs. Precision ball bearings . . . anodized finish. Will operate continuously in excess of 10,000 hrs. at 71°C. Low temp. rise of 25°C., 115 volts. 50/60 cycles, single phase. 3200 RPM. 12 watts, 0.11 amps. Capacitor (not supplied). 1 MFD 5$\frac{13}{16}$" Dia. x 3$\frac{1}{32}$"L. Wt., 3 lbs. Amb. temp. —55° to +71°C

Stk. No.	Type	1-10	11-24	25-49	50-99
91F994	F2HA-M1-3C	46.50	40.30	38.50	35.65

70 FRAME CENTRIFUGAL BLOWER



Model B7A6N-6C. 115 volt, 60 cycle, single phase centrifugal blower. Delivers 80 CFM .25" SP. Operates at 3300 RPM using a 5 MFD capacitor (not supplied). Designed to meet applicable MIL specs. Continuous duty life of 10,000 hrs. at +71°C. Ball bearing construction. Supplied with heavy gauge bracket for base mounting. Length 5$\frac{11}{16}$"; dia. 5$\frac{19}{64}$". 50 watts. Amb. temp. range: —55°C to +71°C. Shipping weight, 6$\frac{1}{2}$ pounds.

Stk. No.	Type	1-10	11-24	25-49	50-99
91F995	B7A6N-6C	46.50	40.30	38.50	35.65

BARBER-COLMAN

TUBE COOLING FAN

Model DYAB6167-1 High speed motor and fan for cooling power tubes and boosting current ratings of vacuum capacitors. Shaded Pole motor is not radio-interfering. Mounts below or beside tube, keeps seals cool. Size: 2$\frac{19}{32}$x2$\frac{3}{8}$x1$\frac{5}{8}$". Shaft $\frac{1}{8}$" dia. For 110v. 50-60 cycles AC. Wt. 1 lb.

Stock No.	Model	1-9	10-49
28F998	DYAB6167-1	4.43	3.32

NEWARK CARRIES
COMPLETE LINES

INDUSTRIAL & SPECIAL PURPOSE TUBES

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
RCA	Radio Corporation of America	TUNG	Tung-Sol	EIM	Eimac	NAT EL	National Elec.
		RAY	Raytheon	DUM	Dumont	NAT UN	National Union
GE	General Electric	AMP	Amperex	GL	Gold Lion	COSSAR	Cossar
SYL	Sylvania	AMP-VAL	Amperex-Valvo	MUL	Mullard	THER	Thermosen
VICT	Victoreen	GEN	Genelex	PENT	Penta-Labs	WAT	Waterman

Type	Mfg.	1-4	5-18	19-49	50-99
OA2	AMP	1.26	....	....	....
OA2	RCA	1.46	1.25	1.17	1.04
OA2	GE	1.32	1.20	1.08	.94
OA2WA	RCA	3.65	3.12	2.92	2.58
OA2WA	RAY	3.32	3.01	2.70	2.37
OA3	GE	1.55	1.45	1.30	....
OA3	RCA	1.54	1.33	1.24	1.10
OA4G	RCA	1.86	1.62	1.50	1.33
OA4G	GE	1.90	1.78	1.58	....
OA5	SYL	6.95	....	....	....
OB2	GE	1.45	1.25	1.17	....
OB2	RCA	1.44	1.24	1.16	1.03
OB2WA	RCA	3.00	2.58	2.40	2.12
OB2WA	SYL	3.00	2.58	2.40	2.12
OB3	GE	2.35	2.22	2.00	....
OC2	RCA	1.50	1.28	1.20	1.06
OC3	GE	1.50	1.30	1.21	1.07
OC3	RCA	1.50	1.30	1.21	1.07
OD3	GE	1.45	1.45	1.30	....
OD3	RCA	1.44	1.24	1.16	1.03
OD3W	TUNG	6.30	....	....	....
OE3	See 85A1	....	....	....	....
OG3	See 85A2	....	....	....	....
1AD4	RAY	2.80	2.50	2.24	....
1AE4	RAY	4.50	....	....	....
1AGH	GE	3.05	2.85	2.53	....
1AG4	RAY	3.05	2.69	2.40	....
1AH4	GE	1.35	1.26	1.12	....
1AG5	RAY	2.05	1.85	1.53	....
1AJ5	GE	1.55	1.45	1.30	....
1B85	VICT	8.50	....	....	....
1CP1	See 1CP31	....	....	....	....
1CP31	COSSAR	20.50	....	....	....
1C21	RCA	4.15	3.54	3.31	2.93
1D21/SN4	SYL	7.10	6.21	5.55	....
1EP1	RCA	21.45	18.80	16.50	....
C1K/6014	GE	12.90	11.80	10.50	....
C1K/6014	RCA	13.10	11.30	10.05	....
C1K/6014	NAT EL	13.10	11.97	10.64	....
GL1P21	GE	54.50	47.60	41.90	....
1P21	RCA	54.50	47.60	41.90	....
1P22	RCA	15.80	13.50	12.30	....
1P28	RCA	28.10	24.50	21.80	....
1P29	RCA	4.80	4.12	3.84	3.35
GL1P39	GE	2.45	2.11	1.99	1.86
1P39	RCA	2.45	2.20	1.95	1.70
GL1P40	GE	3.75	3.22	3.00	2.60
1P40	RCA	3.75	3.36	3.14	2.77
GL1P41	GE	4.00	3.79	3.37	2.80
1P41	RCA	4.00	3.60	3.10	2.90
1P42	RCA	13.95	12.60	11.80	10.40
1S2A	AMP	1.38	1.28	....	....
1V6	GE	1.90	1.78	1.58	....
1Z2	TUNG	6.40	5.51	5.14	4.56
20C1	EIMAC	18.50	17.00	15.00	14.00
2-25A	EIMAC	24.00	22.56	21.12	....
2-240A	EIMAC	50.00	46.00	40.94	38.52
2APIA	RCA	15.75	13.75	12.10	....
2AS15A	THER	9.00	7.20	6.20	....
2BP1	RCA	19.05	16.65	14.65	....
2BP1	SYL	19.05	16.65	14.65	....
2BP1	WAT	18.00	15.75	13.20	....
2BP2	WAT	19.00	16.60	14.90	....
2BP7	WAT	20.50	18.00	16.00	....
2BP11	WAT	19.00	16.60	14.90	....
2C39A	EIMAC	20.75	19.15	16.86	....
2C39WA	SYL	30.00	27.90	25.74	23.73
2C51	TUNG	3.65	3.21	2.91	2.57
2C53	NAT UN	9.45	....	....	....
2D21	AMP	1.29	1.12	1.04	.92
2D21	GE	1.30	1.18	1.06	.92
2D21	RCA	1.29	1.12	1.04	.92
2D21W	RCA	2.90	2.61	2.32	2.04
2E24	GE	5.20	4.70	4.20	3.70
2E26	RCA	3.75	3.37	2.99	2.60
2E26	RAY	3.85	3.18	2.85	....
2ER5	AMP	1.40	1.20	1.12	....
2FP1	WAT	22.10	19.35	17.30	....
2FP2	WAT	23.10	20.20	18.10	....
2FP4	WAT	23.10	20.20	18.10	....
2FP7	WAT	24.60	21.60	19.30	....
2PF11	WAT	23.10	20.20	18.10	....
2FY5	AMP	1.40	1.20	1.12	....
2G21	RAY	7.39	7.02	6.28	....
2G22	RAY	7.39	7.02	6.28	....
2K25	RAY	36.90	35.46	33.66	....
2SM15	THER	10.00	8.00	7.00	....
2X2A	GE	3.05	2.75	2.45	2.15
2X2A	RCA	3.10	2.78	2.60	2.28
3A4	RCA	1.25	1.04	.97	.86

Type	Mfg.	1-4	5-18	19-49	50-99
3A5	RCA	2.05	1.77	1.65	1.45
3ACP1A	WAT	33.20	29.00	26.00	....
3ACP2A	WAT	34.20	30.00	26.80	....
3ACP7A	WAT	35.70	31.20	27.90	....
3ACP11A	WAT	34.20	30.00	26.80	....
3AHP1	WAT	22.40	19.60	17.50	....
3AHP2	WAT	23.40	20.50	18.30	....
3AHP7	WAT	24.90	21.80	19.50	....
3AHP11	WAT	23.40	20.50	18.30	....
3AP1A	RCA	24.15	19.20	16.90	....
3AQP1	WAT	16.00	14.00	12.50	....
3AQP2	WAT	17.00	14.90	13.30	....
3AQP7	WAT	18.50	16.20	14.45	....
3AQP11	WAT	17.00	14.90	13.30	....
3ASP1	WAT	30.40	26.60	23.80	....
3ASP2	WAT	31.40	27.50	24.60	....
3ASP7	WAT	31.90	27.90	24.90	....
3ASP11	WAT	31.40	27.50	24.60	....
3ATP1	WAT	53.80	46.20	41.30	....
3ATP2	WAT	53.80	47.00	42.00	....
3ATP7	WAT	55.30	48.40	43.20	....
3ATP11	WAT	53.80	47.00	42.00	....
3B24W	GE	10.55	9.85	8.80	....
3B25	RCA	7.75	7.00	6.54	5.40
3B28	AMP	6.50	5.94	....	....
3B28	RCA	6.00	5.44	5.08	4.20
3BP1A	RCA	16.25	14.20	12.50	....
GL3C23	GE	11.98	11.20	9.90	....
3C23	RCA	11.98	11.20	9.90	....
3CX100A5	EIMAC	31.25	28.75	25.30	....
3C45	See 6130	....	....	....	....
3D22A	RCA	25.50	22.50	19.60	....
3ER5	AMP	1.40	1.20	1.12	....
3EH7	AMP	1.45	1.25	1.15	....
3EJ7	AMP	1.45	1.25	1.15	....
3E29	RCA	19.00	16.55	14.60	....
C3J/5632	RCA	13.80	12.05	10.73	....
C3J/5632	NAT EL	13.80	12.05	10.73	....
C3JA/5684	RCA	14.50	12.70	11.25	....
NLC3J/5684	See 5684/C3J	....	....	....	....
5684NE	NAT EL	16.70	....	....	....
3JP1	WAT	20.50	18.10	16.10	....
3JP2	WAT	21.50	18.80	16.80	....
3JP7	WAT	23.00	20.20	18.00	....
3JP11	WAT	21.50	18.80	16.80	....
3KP1	RCA	19.50	17.00	15.00	....
3KP1	WAT	19.10	16.70	14.90	....
2MP1	WAT	21.60	18.90	16.90	....
3MP2	WAT	22.60	19.80	17.90	....
3MP7	WAT	24.10	21.10	18.85	....
3MP11	WAT	22.60	19.80	17.90	....
3RP1	WAT	13.25	12.40	12.00	....
3RP2	WAT	16.50	14.50	12.90	....
3RP7	WAT	18.00	15.80	14.10	....
3RP11	WAT	16.50	14.50	12.90	....
3RP1A	WAT	20.00	17.50	15.65	....
3RP2A	WAT	21.00	18.40	16.40	....
3RP7A	WAT	22.50	19.70	17.60	....
3RP11A	WAT	21.00	18.40	16.40	....
3SP1	WAT	24.10	21.10	18.90	....
3SP2	WAT	25.10	22.00	19.70	....
3SP7	WAT	26.60	23.30	20.80	....
3SP11	WAT	25.10	22.00	19.70	....
3WP1	DUM	24.70	....	....	....
3WP1	WAT	24.60	22.70	20.40	....
3WP2	DUM	27.60	....	....	....
3WP2	WAT	26.50	23.20	20.80	....
3WP7	WAT	29.30	25.60	22.90	....
3WP11	WAT	26.50	23.20	20.80	....
3W5000F3	EIMAC	245.00	....	....	....
3X2500A3	EIMAC	200.00	184.00	....	....
3X2500F3	EIMAC	205.00	194.00	....	....
3X3000A1	EIMAC	210.00	200.00	....	....
3XP1	WAT	26.40	23.10	20.65	....
3XP2	WAT	27.40	24.00	22.40	....
3XP7	WAT	28.90	25.30	22.60	....
3XP11	WAT	27.40	24.00	22.40	....
3YP1	WAT	25.60	22.40	20.00	....
3YP2	WAT	26.60	23.30	20.80	....
3YP7	WAT	28.10	24.60	22.00	....
3YP11	WAT	26.60	23.30	20.80	....
4-65A	EIMAC	28.50	26.50	25.00	....
4-65A	AMP	28.00	26.32	24.06	....
4-125A	RCA	36.00	33.80	31.80	....
4-125A	EIMAC	36.00	33.80	31.80	....
4-250A	EIMAC	46.50	42.00	39.30	....
4-400A	EIMAC	48.00	45.00	42.00	....
4-1000A	EIMAC	132.00	123.00	....	....
4B32	AMP	13.50	12.83	11.93	....
4CN15A	EIMAC	58.50	53.82	48.34	....

Seven Warehouses—To Serve Your Industrial Needs

INDUSTRIAL & SPECIAL PURPOSE TUBES

NEWARK CARRIES
COMPLETE LINES

Type	Mfg.	1-4	5-18	19-49	50-99
4CX250BA	AMP(USAF)	45.00	42.00	....	....
4CX250B	EIMAC	39.00	36.50	34.50	....
4CX250R	EIMAC	55.50	52.00	47.50	....
4CX300A	EIMAC	58.50	53.82	48.34	....
4CX1000A	EIMAC	181.00	166.52	....	....
4CX5000A	EIMAC	495.00	465.00	....	....
4EH7	AMP	1.45	1.25	1.17	....
4EJ7	AMP	1.45	1.25	1.17	....
4ES8	AMP	2.28	1.97	1.83	....
4E27A	EIMAC	50.00	46.50	44.00	....
4E27A	RCA	50.00	43.75	37.50	....
4PR60A	EIMAC	107.00	98.44	87.64	....
4W20000A	EIMAC	1950.00	....	....	....
4X150A	EIMAC	26.50	24.38	21.45	....
4X500A	EIMAC	128.50	120.00	....	....
52BP/APD1	WAT	27.70	24.20	21.60	....
5ABP/APD2	WAT	33.80	29.60	26.40	....
5ABP/APD7	WAT	35.20	20.80	27.50	....
5ABP/APD11	WAT	33.80	29.60	26.40	....
5ADP1	DUM	28.30	....	....	....
5ADP7	DUM	38.50	....	....	....
5AQP1	DUM	37.00	....	....	....
5AQP1A	DUM	40.00	....	....	....
5AQP2A	DUM	40.75	....	....	....
5AQP7	DUM	40.00	....	....	....
5BGP2/T51	DUM	75.00	....	....	....
5BHP2/T54	DUM	92.50	....	....	....
5BP1A	DUM	23.30	....	....	....
5BTP1	WAT	26.80	23.40	20.90	....
5BTP2	WAT	27.80	24.40	21.80	....
5BTP7	WAT	29.30	25.60	22.90	....
5BTP11	WAT	27.80	24.40	21.80	....
5CP1A	DUM	21.45	....	....	....
5C22	See AMP 6279	....	....	....	....
5DEP1	WAT	13.65	13.10	12.80	....
5DEP2	WAT	23.00	20.20	18.00	....
5DEP7	WAT	24.40	21.30	19.00	....
5FP4A	RCA	24.35	21.25	18.75	....
5LP1A	DUM	40.00	....	....	....
5R4GYA	GE	2.05	1.76	1.64	1.45
5R4GYB	RCA	2.03	1.76	1.64	1.45
5R4WGA	TUNG	8.85	7.43	7.06	....
5R4WGB	TUNG	13.00	12.15	10.79	9.30
5UP1	GE	12.45	11.20	9.95	8.70
5UP1	RCA	12.45	10.53	8.70	....
5UP7	WAT	22.80	19.90	17.50	....
5Y3WGTA	SYL	4.05	3.44	3.21	2.86
5Y3WGTB	GE	See 6087/5Y3WGTB			....
6C4WA	See 6100	....	....	....	....
6AC7W	RCA	4.20	3.62	3.37	2.99
6AD4	SYL	3.70	3.51	3.18	....
6AG7Y	RCA	2.65	2.28	2.12	1.88
6AH6WA	RAY	7.65	6.78	5.82	....
6AJ5	RAY	3.95	3.44	3.24	....
6AJ5	SYL	3.85	3.33	3.12	2.75
6AK4	SYL	3.10	2.95	2.64	....
6AK6	RCA	1.40	1.22	1.13	1.00
6AL3	AMP	1.45	1.25	1.17	....
6AL5W	AMP	1.90	1.87	1.66	1.47
6AN5	GE	3.75	3.58	3.16	....
6AN5WA	RAY	10.80	9.64	9.07	....
6AN6	SYL	3.75	3.56	3.19	....
6AR6	RAY	5.75	5.62	5.06	....
6AR6	TUNG	5.75	5.65	5.00	....
6AS6	RCA	3.43	2.97	2.77	2.45
6AS6	RAY	3.43	2.97	2.77	2.45
6AS6	SYL	3.43	2.97	2.77	2.45
6AS7G	RCA	4.95	4.29	3.99	3.52
6AS7GA	GE	4.95	4.29	3.99	3.52
6AU6WA	RCA	2.75	2.39	2.22	1.97
6AU6WA	SYL	2.95	2.74	2.64	2.44
6BA5	SYL	4.70	4.44	....	....
6BF7W	SYL	4.20	4.09	3.51	....
6BL6	SYL	37.00	34.41	33.03	30.57
6BM6	SYL	38.95	36.22	34.96	33.30
6C4W	RAY	8.30	7.40	6.95	....
6C21	EIMAC	93.00	85.56	84.31	....
6CA7	See EL34/6CA7	....	....	....	....
6D4	GE	2.85	2.33	2.17	2.00
6D4	SYL	2.85	2.44	2.18	1.94
6F4	RCA	13.10	11.85	10.65	9.35
6H6WGT	TUNG	8.20	6.89	6.55	....
C6J/5C21	RCA	28.10	23.92	19.75	....
C6JA/5685	RCA	29.00	24.73	20.15	....
6J4	RCA	4.19	3.61	3.37	2.99
6L6WGB	TUNG	5.75	5.46	4.89	....
6Q5G	DUM	5.00	....	....	....
6SC7GTY	TUNG	3.25	2.73	2.60	....
6SJ7Y	RCA	1.80	1.51	1.41	1.25
6SJ7WGT	SYL	2.55	2.40	2.12	....
6SL7WGT	SYL	3.15	2.99	2.64	....
6SN7WGT	RAY	2.34	2.09	1.97	....
6SN7WGT	SYL	2.35	2.22	2.00	....
6SN7WGTA	SYL	4.90	4.50	3.90	....
6SN7WGTA	TUNG	4.90	4.50	3.90	....

Type	Mfg.	1-4	5-18	19-49	50-99
6SU7GTY	TUNG	4.90	4.50	3.90	....
6V6GTY	SYL	1.45	1.37	1.24	....
6X4W	RAY	1.60	1.52	1.36	....
6X4WA	See 6202	....	....	....	....
6X5WGT	RAY	1.51	1.35	1.27	....
7AK7	SYL	8.15	7.38	6.61	5.82
7VP1	RCA	25.30	22.10	19.45	....
10KP7	RCA	42.90	36.30	....	....
10SP4	RCA	71.50	55.00	....	....
12A6	RCA	3.36	3.04	2.72	2.40
12AT7WA	RCA	2.95	2.54	2.38	2.10
C16J/5665	RCA	56.90	49.80	44.30	....
FG-17	See 5557	....	....	....	....
KY21A	EIMAC	26.75	25.00	23.35	....
RX21A	EIMAC	25.75	24.00	22.50	....
25T	EIMAC	28.50	26.22	23.08	....
26Z5W	TUNG	3.00	2.52	2.27	....
FG27A	GE	52.00	46.45	41.40	....
28D7	SYL	4.95	4.48	4.01	3.54
GZ32	AMP	1.80	1.72	1.63	1.51
ECC33	AMP-VAL	2.40	2.24	2.00	....
EL34/6AC7	AMP	2.90	2.73	2.44	....
EM34/6CD7	AMP	1.83	1.72	1.54	....
GZ34/5AR4	AMP	2.10	1.97	1.76	....
35T	EIMAC	33.00	30.69	28.89	....
EF37A	AMP-VAL	2.90	2.73	2.42	....
EL37	AMP-VAL	2.88	2.88	2.69	2.40
EL38	AMP	3.40	3.20	3.08	2.90
ECC40	AMP-VAL	1.95	1.82	1.64	....
EF40	AMP-VAL	2.12	1.99	1.78	....
EZ40	AMP-VAL	1.20	1.12	1.03	....
EB41	AMP-VAL	1.55	1.47	1.31	....
EBC41	AMP-VAL	1.37	1.29	1.14	....
EF41	AMP-VAL	1.60	1.51	1.36	....
EL41	AMP-VAL	1.75	1.70	1.53	....
EF42	AMP-VAL	2.20	2.05	1.85	....
EL42	AMP-VAL	1.75	1.70	1.53	....
ECH42	AMP-VAL	1.32	1.24	1.12	....
50AVP	AMP	62.00	....	....	....
EA50	AMP-VAL	1.62	....	....	....
51UVP	AMP	275.00	....	....	....
52AVP	AMP	95.00	....	....	....
EF50	AMP-VAL	2.87	2.70	2.43	....
53AVP	AMP	65.00	....	....	....
53	TUNG	3.75	2.95	2.80	....
53UVP	AMP	410.00	....	....	....
54AVP	AMP	158.00	....	....	....
VX55	VICT	16.00	....	....	....
56AVP	AMP	325.00	....	....	....
56UVP	AMP	540.00	....	....	....
57AVP	AMP	550.00	....	....	....
58AVP	AMP	465.00	....	....	....
EFP60	AMP	7.50	7.40	7.28	7.14
S-13211	Socket for EFP60	.65	....	....	....
GL-KT66	G.L.	4.50	....	....	....
GLKT66-MP	G.L.	10.00	....	....	....
DM70/1M3	AMP	.98	.89	.81	.73
75N	AMP	16.50	14.85	13.20	....
75NB3	AMP	16.50	14.85	13.20	....
75TH	EIMAC	43.00	39.56	34.83	....
75TL	EIMAC	43.00	39.56	34.83	....
76NB3	AMP	25.80	23.22	20.69	....
GL-KT77	G.L.	5.50	....	....	....
GLKT77-MP	G.L.	12.00	....	....	....
GL-U77	G.L.	3.70	....	....	....
80N	AMP	45.00	41.40	36.90	....
E80CC	See 6085	....	....	....	....
E80F	See 6084	....	....	....	....
E80CF/7643	AMP	3.60	3.45	3.16	....
E80L	See 6227	....	....	....	....
EABC80	AMP-VAL	1.60	1.51	1.36	....
EABC80/6AK8	MUL	2.30	2.00	1.88	1.72
EBF80	AMP-VAL	1.27	1.20	1.08	....
ECF80/6BL8	AMP	1.70	1.60	....	....
ECF80/6BL8	MUL	2.75	2.39	2.25	2.06
ECL80	AMP-VAL	1.52	1.43	1.29	....
ECL80/6AB8	MUL	2.50	2.18	2.06	1.84
EF80/6BX6	AMP	1.55	1.40	1.25	....
EM80/6BR5	AMP	1.23	1.18	1.08	....
EZ80/6V4	AMP	.75	.71	.63	....
PCF80/9A8	MUL	2.95	2.56	2.41	2.20
E81L	See 6686	....	....	....	....
ECC81/12AT7	AMP	2.55	2.42	2.05	....
ECC81/12AT7	AMP	1.53	1.40	1.25	....
EC81/6R4	MUL	2.30	2.00	1.88	1.72
ECH81/6AJ8	AMP-VAL	1.70	1.57	1.42	....
ECH81/6AJ8	MUL	2.40	2.09	1.97	1.79
EL81	AMP-VAL	2.10	1.97	1.77	....
EM81/6DAS	AMP	1.23	1.17	1.05	....
EZ81/6CA4	AMP	1.05	1.05	.96	.80
ECC82/12AU7	AMP	1.23	1.20	1.07	1.00
ECC82/12AU7	MUL	2.00	1.74	1.64	1.50
ECL82/6BM8	AMP	1.60	1.47	1.31	....
EL82	AMP	1.95	1.80	1.71	....
PCL82	AMP	2.20	2.07	1.85	....

INDUSTRIAL & SPECIAL PURPOSE TUBES

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
RCA	Radio Corporation of America	TUNG	Tung-Sol	EIM	Eimac	NAT EL	National Elec.
		RAY	Raytheon	DUM	Dumont	NAT UN	National Union
GE	General Electric	AMP	Amperex	GL	Gold Lion	COSSAR	Cossar
SYL	Sylvania	AMP-VAL	Amperex-Valvo	MUL	Mullard	THER	Thermosen
VICT	Victoreen	GEN	Genelex	PENT	Penta-Labs	WAT	Waterman

Type	Mfg.	1-4	5-18	19-49	50-99
UCL82/50BM8	AMP	1.50	1.41	1.27	....
E83F	See 6689	....	....	....	....
83	RCA	1.89	1.64	1.52	1.35
ECC83/12AX7	AMP	1.28	1.28	1.11	1.04
ECC83/12AX7	MUL	2.00	1.74	1.64	1.50
ECC84	AMP-VAL	1.95	1.83	1.65	....
ECL84/6DX8	MUL	2.60	2.24	2.11	1.93
EL84/6BQ5	AMP	1.30	1.10	1.02	.90
EL84/6BQ5	MUL	1.95	1.70	1.60	1.46
EM84/6FG6	AMP	1.48	1.39	1.24	....
PL84/15CW5	MUL	2.25	1.96	1.84	1.48
85A1/OE3	AMP	2.50	2.31	....	....
85A2/OG3	AMP	2.30	1.97	....	....
85NB3	AMP	22.70	20.43	18.19	....
ECC85/6AQ8	AMP	1.45	1.32	1.17	....
ECC85/6AQ8	MUL	2.15	1.87	1.76	1.61
ECC86/6GM8	AMP	2.28	2.28	2.10	1.77
ECF86/6HG8	AMP	1.60	1.49	1.33	....
ECF86/6HG8	MUL	2.80	2.43	2.29	2.07
ECL86/6GW8	AMP	1.70	1.59	1.28	....
EF86/6267	AMP	1.38	1.38	1.26	1.10
EF86/6267	MUL	2.25	1.96	1.84	1.66
EL86/6CW5	AMP	1.43	1.32	1.17	....
PCF86/7HG8	MUL	2.40	2.09	1.97	1.80
E88CC	See 6922	....	....	....	....
ECC88/6DJ8	AMP	1.89	1.89	1.84	1.73
ECC88/6DJ8	MUL	2.80	2.44	2.30	2.10
GL-KT88	G.L.	6.95	....	....	....
GLKT88-MP	G.L.	14.90	....	....	....
PCC88	AMP	2.20	2.06	1.84	....
EBF89/6DC8	AMP	1.60	1.49	1.33	....
EBF89/6DC8	MUL	2.40	2.09	1.97	1.78
EF89/6DA6	AMP	1.60	1.47	1.31	....
EF89/6DA6	MUL	2.40	2.09	1.97	1.80
90C1	AMP	2.25	1.93	....	....
90NB3/900V	AMP	27.00	24.30	21.63	....
E90CC/5920	AMP	2.40	2.21	....	....
E90F/7693	AMP	2.90	2.69	2.58	....
EBC90/6AT6	MUL	1.80	1.57	1.48	1.35
EC90	AMP	1.55	1.48	1.42	....
EC90/6C4	MUL	2.60	2.24	2.11	1.93
EK90/6BE6	MUL	1.90	1.65	1.55	1.40
EZ90/6X4	AMP	.76	.71	.64	....
EL90/6AQ5	MUL	1.95	1.69	1.59	1.44
EAA91	AMP-VAL	.92	.87	.79	....
EB91/6AL5	MUL	1.75	1.52	1.43	1.29
EBC91/6AV6	MUL	1.75	1.52	1.43	1.29
EBC91/6AV6	AMP	.80	.76	.67	....
HBC91/12AV6	MUL	1.75	1.52	1.43	1.29
ECC91/6J6	AMP	1.40	1.29	1.15	....
ECC91/6J6	MUL	2.30	1.80	1.69	1.53
E92CC	AMP	2.00	1.87	1.65	....
EC92	AMP	1.15	1.06	.94	....
EF93/6BA6	MUL	1.80	1.57	1.48	1.34
EF94	AMP-VAL	1.05	.99	.90	....
EF94/6AU6	MUL	1.85	1.61	1.52	1.37
EC95/6ER5	AMP	1.07	1.00	.94	....
EC95/6ER5	MUL	2.20	1.91	1.80	1.64
EF95/6AK5	MUL	2.95	2.57	2.42	2.21
EL95	AMP-VAL	1.07	1.01	.91	....
EL95/6DL5	MUL	2.30	2.00	1.88	1.70
EC97/6FY5	MUL	2.15	1.87	1.76	1.59
E99F/7694	AMP	2.90	2.69	2.42	....
100C	AMP	54.00	48.60	43.20	....
100CB	AMP	58.00	52.20	46.40	....
100HB	AMP	54.00	48.60	43.20	....
100LB	AMP	54.30	48.87	43.50	....
100N	AMP	43.50	41.33	36.98	....
100NB/900V	AMP	46.00	41.40	36.85	....
100TH	EIMAC	23.50	22.00	20.60	....
100TL	EIMAC	23.50	22.00	20.60	....
FG105	RCA	59.00	55.00	48.73	....
120C	AMP	90.00	81.00	72.00	....
120CB	AMP	95.00	85.50	76.00	....
120N/900V	AMP	90.00	81.00	72.00	....
120NB/900V	AMP	95.00	85.50	76.00	....
DX145A/EC157	AMP	See 8108/DC157	....	....	....
150AVP	AMP	62.00	....	....	....
150CVP	AMP	84.00	....	....	....
150N/900V	AMP	61.00	54.90	48.87	....
150NB/900V	AMP	66.00	59.40	52.87	....
152AVP	AMP	130.00	....	....	....
153AVP	AMP	80.00	....	....	....
153C	AMP	91.00	81.90	72.80	....
155N	AMP	61.00	54.90	48.87	....
161G	AMP	90.00	81.00	72.00	....
170G	AMP	85.00	66.00	....	....
171G	AMP	110.00	101.00	86.00	....
172	RCA	122.00	116.00	....	....
FG172	GE	122.00	116.00	....	....
PL172	See 8295	....	....	....	....

Type	Mfg.	1-4	5-18	19-49	50-99
PL175A	PENTA	50.00	46.75	41.50	....
E180F	See 6688	....	....	....	....
EF183/6EH7	AMP	1.45	1.25	1.17	....
EF183/6EH7	MUL	2.35	2.04	1.92	1.74
EF184/6EJ7	MUL	2.35	2.04	1.92	1.74
EF184/6EJ7	AMP	1.45	1.25	1.17	....
ECC189/6ES8	MUL	3.15	2.74	2.58	2.35
200C	AMP	67.00	60.30	53.60	....
200CB	AMP	71.00	63.90	56.80	....
200HB	AMP	67.00	60.30	53.60	....
200LB	AMP	67.50	60.75	54.08	....
200N	AMP	56.00	52.64	47.04	....
200NB/900	AMP	58.50	52.65	46.87	....
230C	AMP	43.00	38.70	34.40	....
230N	AMP	41.00	36.90	32.80	....
240N	AMP	41.00	36.90	32.80	....
250R	EIMAC	38.50	36.00	33.75	....
250TH	EIMAC	38.50	36.00	33.75	....
250TL	EIMAC	38.50	36.00	33.75	....
304TH	EIMAC	75.00	69.00	60.72	....
304TL	EIMAC	75.00	69.00	60.72	....
SA309	SYL	16.00	....	....	....
GL393A	GE	13.25	12.35	10.90	....
GB407A	SYL	5.90	5.49	5.24	4.84
GB408A	SYL	4.95	4.60	4.42	4.07
450TH	EIMAC	85.00	78.20	68.82	....
450TL	EIMAC	85.00	78.20	68.82	....
501R	AMP	225.00	213.75	202.50	....
502A	GE	2.30	1.97	1.84	....
504R	AMP	245.00	232.75	220.50	1.62
512AX	RAY	2.77	2.64	2.48	....
526AX	RAY	4.59	4.38	4.10	....
533AX	RAY	2.94	2.80	2.63	....
534AX	RAY	3.01	2.87	2.79	....
Z550M	AMP	14.50	12.00	11.50	....
B870067	Socket for Z550M	12.00	....	....	....
575A/7136	AMP	22.15	19.86	17.24	....
575A	GE	20.15	17.60	15.50	....
575A	RCA	20.15	17.60	15.50	....
579B	RCA	20.50	17.90	16 00	....
579B	SYL	20.50	17.90	16.00	....
592/3-200A3	EIMAC	46.00	42.50	40.00	....
NL604	NAT EL	11.80	11.00	9.73	....
NL604L	NAT EL	13.00	12.05	10.62	....
NL615	NAT EL	9.75	8.55	7.05	....
NL623	NAT EL	13.35	12.00	9.42	....
NL623B	NAT EL	33.00	20.80	27.20	....
NL635	NAT EL	13.00	12.20	10.70	....
NL635L	NAT EL	13.50	12.60	11.10	....
NL635P	NAT EL	14.15	13.20	11.65	....
NL649/5834	NAT EL	9.20	8.50	7.29	....
GL672A	GE	39.85	35.00	30.40	....
672A	RCA	39.85	35.00	31.00	....
676	RCA	63.80	60.25	....	....
676	SYL	63.80	62.50	60.00	....
677	RCA	63.80	60.25	....	....
GL-U707	G.L.	3.40	....	....	....
GL-U709	G.L.	3.20	....	....	....
GL-N709	G.L.	3.80	....	....	....
GLN709-MP	G.L.	8.60	....	....	....
NL710/6011	NAT EL	13.00	11.50	10.30	....
NL-710/7518	NAT EL	15.25	13.58	12.10	....
NL714	NAT EL	9.50	8.85	7.80	....
NL715/5557/FG17	NAT EL	9.50	8.88	7.89	....
NL716	NAT EL	12.50	11.65	10.30	....
GL-D717	G.L.	3.80	....	....	....
GL-Z729	G.L.	3.00	....	....	....
NL740	NAT EL	20.80	17.52	15.40	....
NL740L	NAT EL	21.40	20.00	17.65	....
NL740P	NAT EL	21.60	19.23	17.12	....
GL-B749	G.L.	2.80	....	....	....
750TL	EIMAC	169.00	....	....	....
GL-B759	G.L.	3.00	....	....	....
NL760	NAT EL	28.10	26.40	23.20	....
NL760L	NAT EL	29.40	27.10	23.85	....
NL760L	NAT EL	29.40	28.00	24.70	....
NL760P	NAT EL	29.40	28.00	24.70	....
GL801A	GE	13.00	12.15	10.79	....
801A	RCA	13.00	11.25	10.60	9.70
802A	RCA	13.00	12.15	10.79	....
807	AMP	3.00	2.51	2.35	2.07
807	RCA	3.00	2.71	2.53	2.21
807	RAY	3.00	2.71	2.53	2.10
E810F	See 7788	....	....	....	....
810	RCA	26.95	23.50	20.70	....
811A	RCA	6.90	6.21	5.80	5.12
GL811A	GE	6.90	6.21	5.80	5.12
GL812A	GE	6.90	6.21	5.80	5.12
812A	RCA	6.90	6.21	5.80	5.12
813	RCA	23.15	20.20	17.18	....
814	RCA	28.35	27.00	23.80	....

INDUSTRIAL & SPECIAL PURPOSE TUBES

Type	Mfg.	1-4	5-18	19-49	50-99
GL815	GE	28.35	24.75	21.75	....
815	RCA	28.35	24.75	21.75	....
GL816	GE	2.95	2.64	2.47	2.18
816	RCA	2.95	2.64	2.47	2.18
828	AMP	32.95	29.15	25.35	....
828	RCA	32.95	29.15	25.25	....
GL829B	GE	19.00	16.60	14.60	....
829B	RCA	19.00	16.60	14.60	....
832A	RCA	15.90	13.90	12.20	....
833A	RCA	53.65	48.20	45.00	....
836	RCA	11.10	10.05	9.40	8.30
845	RCA	25.00	21.80	19.20	....
GL857B	GE	218.50	200.00	....	....
857B	RCA	218.50	200.00	....	....
GL866A	GE	2.65	2.25	1.85	....
866A	RCA	2.65	2.25	1.85	....
866AX	AMP	2.65	2.38	2.22	1.95
GL868	GE	3.90	3.66	3.41	3.00
868	RCA	3.90	3.66	3.41	3.00
GL872A	GE	9.90	8.92	7.94	6.95
872A	RCA	9.90	8.92	7.94	6.95
872AX	AMP	9.90	8.55	7.96	7.05
884	RCA	2.28	1.97	1.84	1.63
885	RCA	2.00	1.87	1.65	....
892/6333	AMP	270.00	260.00	....	....
892	RCA	270.00	259.00	....	....
892	GE	270.00	235.00	....	....
892R/6445	AMP	425.00	408.00	....	....
892R	GE	425.00	408.00	....	....
892R	RCA	425.00	408.00	....	....
902A	RCA	19.30	16.90	14.85	....
912NB3/900V	AMP	53.00	47.70	42.45	....
912NB4/900V	AMP	53.00	47.70	42.45	....
917	RCA	6.00	5.40	4.80	4.20
918	RCA	4.45	3.90	3.62	3.29
920	RCA	6.40	5.51	5.14	4.45
921	RCA	3.50	3.14	2.94	2.59
GL922	GE	3.10	2.91	2.71	2.38
922	RCA	3.10	2.78	2.60	2.29
GL923	GE	3.40	3.10	2.88	2.53
923	RCA	3.40	3.00	2.80	2.47
925	RCA	3.65	3.14	2.94	2.55
926	RCA	3.75	3.22	3.00	2.60
927	RCA	4.25	3.82	3.39	2.95
929	RCA	2.35	2.12	1.89	1.65
GL930	GE	3.10	2.79	2.60	2.30
930	RCA	3.10	2.79	2.60	2.30
931A	RCA	11.15	10.01	9.45	8.35
934	RCA	4.15	3.57	3.33	2.90
935	RCA	10.95	9.55	8.90	8.00
954	RCA	11.20	9.97	8.08	....
955	RCA	7.05	6.27	5.58	....
956	RCA	10.85	10.09	8.88	....
958A	RCA	12.30	10.95	9.74	....
991	RCA	.87	.80	.75	.62
1000T	EIMAC	169.00	....	....	....
CK1020	RAY	11.86	11.29	9.96	....
CK1021	RAY	11.86	11.29	9.96	....
CK1026	RAY	4.34	4.12	3.88	....
CK1049	RAY	5.85	5.50	4.91	....
NL1051A	NAT EL	65.00	....	....	....
NL1051P	NAT EL	65.00	....	....	....
NL1053	NAT EL	245.00	....	....	....
R1131B	SYL	19.60	....	....	....
R1131C	SYL	15.25	....	....	....
1222A	SYL	2.45	2.15	2.07	1.91
1229	SYL	5.35	5.00	4.48	....
1236C	THER	12.00	11.30	9.00	....
1258	TUNG	31.80	28.89	26.71	....
1612	RCA	5.80	5.24	4.78	4.12
GL1614	GE	4.10	3.52	3.12	2.93
1614	RCA	4.93	4.46	3.99	3.52
1616	RCA	13.90	12.55	11.71	10.35
1619	RCA	5.70	5.15	4.60	4.05
1620	RCA	7.55	6.83	6.11	5.39
1621	RCA	3.50	3.16	2.82	2.48
1622	RCA	4.85	4.39	3.92	3.46
1625	RCA	4.75	4.30	4.00	3.54
1626	RCA	3.45	3.11	2.77	2.43
1629	RCA	1.90	1.62	1.51	1.33
1635	RCA	3.82	3.46	3.10	2.73
1946	RCA	13.65	12.35	11.50	9.55
2050	RCA	2.37	2.04	1.91	1.69
2050	GE	2.40	2.04	1.91	1.69
2050A	RCA	2.21	2.00	1.79	1.58
2050A	GE	2.25	2.03	1.81	1.58
CK5517	RAY	3.80	3.58	3.15	....
5545	AMP	29.30	27.60	24.25	....
GL5550	GE	49.00	46.50	....	....
NL5550	NAT EL	49.00	....	....	....
GL5551A	GE	65.00	61.30	....	....
GL5552A	GE	99.00	92.50	....	....
GL5553B	GE	245.00	231.00	....	....
GL5554	GE	215.00	202.00	....	....
GL5555	GE	316.00	300.00	....	....
GL5556	GE	39.00	35.10	32.60	....
4401 Matched	RCA	1400.00	....	....	....

Type	Mfg.	1-4	5-18	19-49	50-99
4401 Unmatched	RCA	1320.00	....	....	....
5557/FG17	AMP	9.50	8.65	7.40	....
NL5557/FG17/715	NAT EL	9.50	....	....	....
GL5557	GE	9.50	8.85	7.85	....
5557	RCA	9.50	8.85	7.85	....
GL5558	GE	17.50	16.35	14.40	....
5558	RCA	17.50	16.35	14.40	....
NL5558/FG32	NAT EL	17.50	15.58	13.88	....
5559	AMP	23.00	21.60	19.30	....
NL5559/FG57	NAT EL	23.00	....	....	....
5559	RCA	23.00	21.60	20.25	....
GL5560	GE	33.00	30.80	27.20	....
5560	RCA	33.00	30.80	27.20	....
5560/FG95	NAT EL	33.00	....	....	....
5563A	RCA	50.00	42.50	37.40	....
GL5564	GE	850.00	....	....	....
5581	RCA	3.45	3.10	2.80	2.55
5582	RCA	5.40	4.76	4.45	3.85
5583	RCA	4.80	4.22	3.94	3.40
GL5636A	GE	6.10	5.12	4.70	4.35
5636	RCA	7.80	6.75	6.30	5.57
5636	SYL	6.75	6.29	6.05	5.57
5639	RAY	5.22	4.54	4.23	3.73
5639	SYL	6.55	5.67	5.28	4.68
GL5642	GE	2.45	2.21	1.97	1.73
5642	RCA	3.85	3.58	3.19	....
5642	SYL	3.00	2.94	2.85	2.79
5643	RAY	6.37	5.82	5.18	....
5643	TUNG	6.37	5.93	5.28	....
5651	AMP	1.78	1.55	1.44	1.27
5651	GE	1.78	1.61	1.44	1.27
5651	RCA	1.78	1.55	1.44	1.27
5651	RAY	1.78	1.55	1.44	1.27
5651WA	RCA	4.20	3.80	3.39	2.98
5651WA	RAY	3.75	3.40	3.05	2.69
5651WA	TUNG	3.75	3.40	3.05	2.69
5654	GE	3.05	2.62	2.44	2.16
5654	RCA	3.05	2.62	2.44	2.16
5654	SYL	3.05	2.62	2.44	2.16
5654/6AK5W	AMP	2.85	2.71	2.42	2.02
5654/6AK5W	RCA	3.05	2.62	2.44	2.16
5654/6AK5W	RAY	4.36	3.78	3.55	3.09
5654/6AK5W/6096	RCA	4.35	3.78	3.55	3.09
5663	GE	2.10	1.82	1.70	1.50
NL5665/C16J	NAT EL	56.90	....	....	....
5670	RCA	3.00	2.58	2.40	2.11
5670	GE	2.95	2.67	2.39	2.11
5670	SYL	3.00	2.79	2.68	2.48
5670WA	RCA	3.95	3.40	3.18	2.80
CK5672	RAY	2.27	2.14	1.91	....
5672	TUNG	2.27	2.14	1.91	....
CK5675	RAY	16.05	14.00	13.49	11.49
5675	RCA	16.05	13.82	12.90	11.40
CK5676	RAY	3.05	2.88	2.53	....
5676	TUNG	3.05	2.85	....	....
CK5678	RAY	2.27	2.18	2.00	....
5678	TUNG	2.27	2.13	1.91	1.75
NL5684/C3J1A	NAT EL	14.50	12.91	10.49	....
5686	GE	3.40	2.92	2.72	2.40
NL5684NE	NAT EL	16.70	14.87	13.25	....
5686	RCA	3.40	3.13	2.94	....
5687	GE	4.00	3.47	3.23	2.86
5687	RCA	4.05	3.48	3.24	2.86
5687	SYL	4.00	3.72	3.58	3.30
5687WA	GE	6.13	5.55	4.97	4.38
5690	RCA	14.10	12.18	11.35	10.06
5691	GE	8.75	7.55	7.05	6.23
5691	RCA	8.75	7.55	7.05	6.23
5692	GE	8.25	7.12	6.64	5.88
5692	RCA	8.25	7.12	6.64	5.88
5693	GE	6.60	5.70	5.31	4.70
5693	RCA	6.60	5.70	5.31	4.70
5696	GE	2.05	1.85	1.51	....
5696	RCA	2.05	1.74	1.63	1.44
CK5702	RAY	4.20	3.92	3.60	....
CK5702WA	RAY	6.48	5.76	4.98	....
CK5702WB	RAY	9.55	8.46	7.02	....
CK5703	RAY	2.65	2.52	2.24	....
CK5703WA	RAY	7.07	6.38	5.54	....
5713	RCA	280.00	275.00	....	....
5718	RCA	4.25	3.68	3.43	....
5718A	SYL	4.00	3.84	3.38	2.84
5719	GE	3.15	2.85	2.55	2.25
5719	RCA	3.85	3.31	3.10	2.74
5719	SYL	3.50	3.16	3.04	2.80
RK5721	RAY	150.00	140.00	....	....
5722	SYL	6.60	6.00	5.40	4.80
5725	RCA	3.80	3.26	3.05	2.69
5725/6AS6W	GE	3.80	3.26	3.05	2.69
5725/6AS6W	SYL	3.80	3.26	3.05	2.69
5726	RCA	1.55	1.33	1.24	1.10
5726/6AL5W	AMP	1.90	1.87	1.66	1.47
5726/6AL5W	GE	1.55	1.33	1.24	1.10
5726/6AL5W	RCA	1.55	1.33	1.24	1.10
5726/6AL5W/6097	RCA	1.55	1.33	1.24	1.10

INDUSTRIAL & SPECIAL PURPOSE TUBES

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
RCA	Radio Corporation of America	TUNG	Tung-Sol	EIM	Eimac	NAT EL	National Elec.
		RAY	Raytheon	DUM	Dumont	NAT UN	National Union
GE	General Electric	AMP	Amperex	GL	Gold Lion	COSSAR	Cossar
SYL	Sylvania	AMP-VAL	Amperex-Valvo	MUL	Mullard	THER	Thermosen
VICT	Victoreen	GEN	Genelex	PENT	Penta-Labs	WAT	Waterman

Type	Mfr.	1-4	5-18	19-49	50-99
GB5726	SYL	1.55	1.45	1.40	1.29
5727	RCA	2.90	2.47	2.31	2.04
5727	SYL	2.90	2.47	2.31	2.04
5727/2D21W	RAY	2.90	2.47	2.31	2.04
5727/2D21W	SYL	2.90	2.47	2.31	2.04
5727/2D21W	RCA	2.90	2.47	2.31	2.04
5734	RCA	22.05	19.95	17.85	15.73
GL5736	SYL	205.00	182.00	....	....
GL5736	GE	205.00	185.00	....	....
5749/6BA6W	RCA	2.20	1.80	1.77	1.57
5750/6BE6W	GE	3.45	2.97	2.76	2.44
5750	RCA	3.45	3.26	2.88	....
5751	GE	2.95	2.55	2.38	2.10
5751	RCA	2.95	2.55	2.38	2.10
5751	SYL	2.95	2.84	2.73	2.52
5751WA	GE	2.95	2.55	2.38	2.10
5751WA	RCA	2.95	2.55	2.38	2.10
CK5755	RAY	8.05	7.55	6.75	....
GL5762	GE	255.00	....	....	....
5762/7C24	RCA	230.00	205.00	....	....
5763	RAY	2.53	2.19	2.04	1.81
5763	RCA	2.53	2.19	2.04	1.81
CK5783	RAY	4.20	3.91	3.50	....
CK5783WA	RAY	7.07	6.30	6.05	5.90
CK5784WA	RAY	9.13	8.15	7.79	7.62
CK5785	RAY	5.85	5.47	4.86	....
CK5787	RAY	5.00	4.64	4.20	....
CK5787WA	RAY	4.91	4.34	3.84	....
5800	VICT	21.00	....	....	....
5814A	GE	3.30	2.85	2.67	2.36
5814A	RCA	3.35	2.85	2.67	2.36
5814A	SYL	3.35	2.85	2.67	2.36
5814WA	RCA	3.35	2.85	2.67	2.36
5820A	RCA	1200.00	1070.00	....	....
5823	RCA	1.75	1.49	1.39	1.23
5823	SYL	1.72	1.49	1.39	1.23
5825	RCA	22.90	20.00	17.60	....
CK5829WA	RAY	7.48	6.68	6.32	6.22
5840	GE	5.35	4.83	4.31	3.79
5840	RCA	6.25	5.39	5.03	4.45
5840	SYL	5.85	5.45	5.23	4.82
5841	VICT	6.50	....	....	....
5842	AMP	7.45	6.94	5.54	....
CK5842	RAY	7.48	7.11	6.46	....
5844	GE	2.30	1.96	1.83	1.61
5866A	AMP	23.30	21.77	18.12	....
5866	AMP	21.40	20.10	18.16	....
5867	AMP	30.00	28.00	26.95	26.00
5867A	AMP	32.45	....	....	....
5869/AGR9950	AMP	25.00	23.39	22.45	22.00
5870	AMP	100.00	90.00	86.00	82.49
5876	RCA	14.95	12.90	12.04	10.66
CK5876	RAY	14.95	13.98	12.40	10.66
5879	GE	1.95	1.73	1.54	....
5879	RAY	1.79	1.66	1.53	1.39
5881	GE	3.50	3.02	2.82	2.64
5881	RCA	3.20	2.87	2.54	2.20
CK5886	RAY	5.00	4.72	2.24	....
CK5889	RAY	14.50	13.60	12.50	....
5893	RCA	20.75	17.78	14.81	....
5894	AMP	25.00	23.20	21.40	....
5896	GE	3.75	3.24	3.03	2.67
5896	RCA	4.45	3.82	3.56	3.15
5899	GE	5.50	4.92	4.40	3.93
5899	SYL	6.05	5.63	5.39	4.97
5902	RCA	5.75	4.96	4.63	4.09
5902	SYL	5.25	4.89	4.70	4.33
5904	SYL	7.90	6.30	4.40	4.20
5915	RCA	1.65	1.40	1.31	1.16
5933	SYL	12.35	11.55	10.25	....
5933WA	SYL	16.50	15.43	13.70	....
5963	GE	1.50	1.30	1.21	1.04
5963	RCA	1.50	1.35	1.20	1.04
5963	SYL	1.04	.97	.93	.90
5964	GE	1.55	1.34	1.25	1.10
5964	RCA	1.55	1.33	1.24	1.10
5965	GE	1.90	1.72	1.54	1.36
5965	RCA	1.95	1.67	1.56	1.38
GB5965	SYL	1.95	1.81	1.74	1.49
RK5976	RAY	68.00	66.00	61.00	....
5998	TUNG	12.95	11.00	10.30	9.05
6005	RCA	3.93	3.40	3.18	2.81
6005/6AQ5W	GE	3.95	3.40	3.18	2.81
6005/6AQ5W	RCA	3.95	3.40	3.18	2.81
6005/6AQ5W/ 6095	RCA	3.95	3.40	3.18	2.81
6007	AMP	1.25	1.25	1.22	1.17
6008	AMP	1.25	1.17	....	....
6110/710	SYL	13.80	12.90	12.38	11.42
6011/710	GE	13.00	12.20	11.35	....
6012	SYL	7.65	7.08	6.80	6.26
6012	RCA	7.65	6.63	6.28	5.46
6014/C1K	See C1K/6014	....	....	....	....
6021	RCA	4.80	4.16	3.88	3.43
CK6021	RAY	3.81	3.55	3.26	2.87
6021	SYL	4.35	3.63	3.32	3.08
CK6029	RAY	5.00	4.70	4.20	....
6046	GE	1.55	1.33	1.24	1.11
6072A	GE	5.00	4.52	4.04	3.55
6072	RCA	3.90	3.69	3.26	....
6973	RCA	3.00	2.55	2.38	2.06
6074	RCA	3.45	2.90	2.71	2.35
6077	AMP	1800.00	....	....	....
6078	AMP	2150.00	....	....	....
6080	GE	5.35	4.63	4.32	3.81
6080	RCA	5.35	4.63	4.32	3.81
6080WA	RCA	11.40	9.85	9.20	8.12
6080WA	TUNG	10.50	9.27	7.87	....
6082	RCA	5.60	4.83	4.51	3.99
6084/E80F	AMP	3.00	....	....	....
6085/E80CC	AMP	3.00	....	....	....
6087/5Y3WGTB	GE	5.75	4.95	4.61	4.08
CK6088	RAY	2.75	2.54	2.30	....
6098/6AR6WA	TUNG	13.45	11.40	10.85	....
6100/6C4WA	GE	2.50	2.26	2.02	1.78
6101	RCA	5.35	4.60	4.30	3.80
6111	GE	4.30	3.88	3.46	3.04
6111	RCA	5.45	4.68	4.36	3.86
6111	SYL	5.05	4.69	4.37	3.66
CK6111WA	RAY	8.72	....	....	....
6112	GE	4.45	4.02	3.59	3.16
6112	RCA	5.45	4.68	4.36	3.86
6112A	SYL	5.05	4.64	4.33	3.65
6130/3C45	RCA	17.80	14.75	....	....
6134	GE	5.70	4.90	4.58	4.04
6135	GE	2.40	2.05	1.91	1.69
6135	RAY	2.40	2.05	1.91	1.69
6136	RCA	2.75	2.39	2.23	1.97
6136/6AU6WA	GE	2.70	2.44	2.18	1.91
6146	GE	4.35	3.92	3.49	3.05
6146	RCA	4.35	3.92	3.49	3.05
6146A	SYL	5.00	4.65	4.47	4.16
6156/4-250A	AMP	46.50	43.78	38.83	....
6156/4-250A	RCA	46.50	....	....	....
6159	RCA	4.80	4.32	3.84	3.35
GL6161	GE	125.00	110.00	....	....
6161	RCA	125.00	110.00	....	....
GL6166A/7007	GE	1200.00	....	....	....
6166	RCA	850.00	....	....	....
6173	RCA	15.05	13.62	11.19	10.74
CK6174	RAY	3.80	3.58	3.15	....
6181	RCA	1015.00	988.00	....	....
6186/6AG5WA	RCA	3.85	3.34	3.11	2.75
6189/12AU7WA	RCA	3.70	3.18	2.96	2.62
6197	RCA	3.05	2.62	2.45	2.16
6199	RCA	52.00	45.62	40.15	....
6201	AMP	2.95	2.54	2.37	2.10
6201	GE	2.95	2.54	2.37	2.10
6201	RCA	2.95	2.54	2.37	2.10
6B6201	SYL	2.95	2.74	2.63	2.43
6202/6X4WA	GE	2.85	2.46	2.29	2.03
6203	GE	4.10	3.53	3.29	2.92
6205	SYL	5.90	5.39	5.18	4.78
6211	GE	2.15	1.89	1.72	1.66
6211	RCA	2.15	1.83	1.71	1.51
6227/E80L	AMP	3.05	3.05	2.90	2.72
CK6247	RAY	11.20	10.47	9.30	....
6252/AX9910	AMP	25.00	23.20	21.60	....
CK6265	RAY	4.10	3.53	3.29	2.92
6267	MUL	See EF86	....	....	....
6267	AMP	See EF86	....	....	....
6279/5C22	AMP	45.00	42.40	38.40	....
6291	DUM	55.00	....	....	....
6292	DUM	55.00	....	....	....
6293	RCA	5.95	5.35	4.75	4.15
6326	RCA	515.00	475.00	....	....
6336A	TUNG	19.00	18.55	17.32	....
6342A	RCA	60.10	52.50	....	....
6350	RCA	1.95	1.68	1.57	1.39
6350	SYL	2.15	1.90	1.65	1.39
6354	AMP	2.55	2.35	....	....
6360	AMP	5.15	4.80	4.47	....
6360A	AMP	5.85	....	....	....
6362	DUM	125.00	....	....	....
6363	DUM	115.00	....	....	....
6364	DUM	150.00	....	....	....
6365	DUM	60.00	....	....	....
6386	GE	7.40	6.40	5.96	5.26
6397	GE	8.30	7.74	6.94	....

INDUSTRIAL, SPECIAL PURPOSE & CUSTOM TUBES

Type	Mfg.	1-4	5-18	19-49	50-99
6397	RAY	8.30	7.90	7.00	....
6417	RCA	3.04	2.75	2.46	2.17
CK6418	RAY	3.05	2.87	2.53	....
CK6419	RAY	4.75	4.46	4.00	....
CK6437	RAY	8.30	7.74	6.94	....
CK6438	RAY	8.30	7.74	....	....
GL6442	GE	39.25	36.70	2.10	2.06
6463	AMP	2.95	2.95	2.70	2.25
6463	GE	1.90	1.78	1.58	1.33
6467	DUM	55.00	....	....	....
6476	SYL	13.37	12.70	....	....
6481	SYL	38.30	36.00	32.00	....
6483	SYL	3.09	....	....	....
6485	GE	2.05	1.92	1.76	....
CK6485	RAY	2.05	1.93	1.77	....
6528	TUNG	21.55	20.18	18.40	....
6533	RAY	13.25	12.30	10.30	....
CK6550	RAY	4.95	4.32	3.60	....
6550	TUNG	4.95	4.50	4.08	3.59
6550MP	TUNG	10.55	9.43	8.80	7.76
PL6569	PENT	37.50	35.06	31.13	....
6617	AMP	470.00	....	....	....
6618	AMP	670.00	....	....	....
6570	RCA	9.00	7.75	7.24	6.30
6626/OA2WA	RCA	4.45	3.84	3.58	3.17
6627/OB2WA	RAY	4.20	3.96	3.58	....
6655A	RCA	60.00	52.50	....	....
6660/6BA6	RCA	1.01	.90	.80	....
6661/6BH6	RCA	1.34	1.17	1.05	....
6662/6BJ6	GE	1.29	1.20	1.06	....
6662/6BJ6	RCA	1.29	1.12	1.00	....
6663/6AL5	GE	.92	.86	.77	....
6663/6AL5	RCA	.92	.82	.70	....
6669/6AQ5	GE	1.06	.99	.88	....
6669/6AQ5	RCA	1.06	.95	.85	....
6677/6CL6	GE	1.85	1.64	1.52	....
6677/6CL6	RCA	1.85	1.68	1.48	....
6678/6U8A	GE	1.62	1.47	1.32	1.16
6678/6U8A	RCA	1.62	1.40	1.24	....
6679/12AT7	GE	1.50	1.38	1.22	....
6679/12AT7	RCA	1.50	1.38	1.22	....
6680/12AU7	GE	1.22	1.08	1.00	....
6680/12AU7	RCA	1.22	1.13	1.00	....
6681/12AX7	GE	1.26	1.18	1.05	....
6681/12AX7	RCA	1.26	1.16	1.03	....
6688	AMP	6.80	6.80	6.65	6.25
6688A	AMP	6.86	6.46	....	....
6689	AMP	3.60	3.48	3.35	....
6694A	RCA	5.40	4.86	4.54	4.00
6802	SYL	11.43	10.80	....	....
GL6807	GE	29.30	27.80	25.60	....
GL6808	GE	28.90	26.60	....	....
GL6809	GE	31.00	29.45	27.00	....
6810A	RCA	225.00	211.00	....	....
6829	GE	6.10	5.26	4.91	4.34
6829	RAY	6.10	5.26	4.91	4.34
6842	NAT U	14.85	13.75	12.25	....
GL6858/760	GE	28.10	26.50	24.20	....
6883	RCA	4.45	4.00	3.55	3.10
6888	SYL	6.90	6.42	6.17	5.69
6893	RCA	4.15	3.74	3.33	2.90
6907	AMP	25.00	23.75	12.50	....
6909	SYL	11.43	10.69	....	....
6922/EF86	AMP	4.75	4.00	3.73	3.30
6939	AMP	12.00	11.60	10.80	10.10
6947	SYL	12.35	11.51	11.07	10.19
6957	RCA	3.20	2.90	2.70	2.40
6977	AMP	2.50	2.12	1.93	1.79
NL6989NE	NAT EL	33.90	....	....	....
7025	RCA	1.47	1.32	1.17	1.02
7025	MUL	2.15	1.87	1.76	1.59
7025	SYL	1.45	1.31	1.16	1.02
7027A	RCA	3.30	2.96	2.62	2.28
GL7038	GE	205.00	....	....	....
7038	RCA	205.00	195.00	....	....
7044	RCA	3.20	2.76	2.58	2.28
7044	SYL	3.20	2.77	2.40	....
7046	RCA	570.00	540.00	....	....
7054	RCA	1.55	1.33	1.24	1.09
7055	RCA	1.00	.84	.79	.71
7056	RCA	1.20	1.01	.95	.84

Type	Mfg.	1-4	5-18	19-49	50-99
7057	RCA	1.95	1.69	1.59	1.39
7058	RCA	1.30	1.11	1.04	.92
7059	RCA	1.75	1.49	1.39	1.23
7060	RCA	1.95	1.69	1.59	1.36
7061	RCA	1.30	1.11	1.04	.92
7077	GE	25.00	25.00	25.00	....
7094	RCA	29.30	25.75	22.80	....
7102	RCA	110.00	100.00	88.50	....
7119	AMP	2.95	2.48	2.30	2.03
7136	See 575A	....	....	....	....
7167	GE	2.00	1.67	1.34	1.01
7189	AMP	1.80	1.76	1.68	....
7199	SYL	1.19	1.11	1.06	.98
7223	RCA	12.30	11.15	10.40	9.00
7224	RCA	8.75	7.59	7.29	7.00
7247	GE	1.51	1.39	1.27	1.05
7247	MUL	2.30	2.00	1.88	1.70
7265	RCA	425.00	400.00	....	....
7266 (Cer)	GE	21.50	19.05	16.60	....
GL7293	GE	1300.00	....	....	....
7308	AMP	5.20	4.65	4.33	3.83
7316	AMP	1.40	1.17	.94	.88
7355	GE	1.51	1.36	1.21	1.05
7360	RCA	3.80	3.43	3.06	2.69
7377	AMP	25.00	23.38	20.95	....
7412	RCA	2.10	1.86	1.73	1.53
7459	AMP	230.00	....	....	....
7462 (Cer)	GE	25.00	22.00	19.00	....
7467	RCA	8.75	7.92	7.40	5.36
7486 (Cer)	GE	25.00	22.00	19.00	....
7513	RCA	1320.00	1230.00	....	....
NL710L/7518	NAT EL	17.00	15.13	13.47	....
NL7556ANE	NAT EL	19.60	17.45	15.54	....
7558	RCA	3.50	3.02	2.82	2.48
7580	RCA	45.05	39.30	34.60	....
7586 (NUV)	RCA	3.35	2.92	2.70	2.35
7587	RCA	5.20	4.46	4.16	3.67
7645	AMP	10.50	9.75	9.20	....
7695	SYL	2.48	2.30	2.20	2.03
NL7723NE	NAT EL	13.10	....	....	....
7737	AMP	7.80	7.31	7.22	....
7738	SYL	2.62	2.42	2.32	2.09
7753	AMP	140.00	....	....	....
NL7786NE	NAT EL	15.50	....	....	....
7788	AMP	10.50	9.90	9.42	....
GL8902/ZL-7802	GE	1975.00	....	....	....
GL8903/ZL-7803	GE	1350.00	....	....	....
7795 (NUV)	RCA	3.35	2.88	2.68	2.36
8005	RCA	17.85	16.15	14.70	....
8008	RCA	9.90	8.52	6.95	....
8013A	RCA	17.05	15.00	13.00	....
8108/EC157	AMP	135.00	....	....	....
8020 (100R)	EIMAC	21.50	20.00	18.80	....
8177	AMP	1850.00	....	....	....
8179	AMP	132.00	....	....	....
8228	AMP	2.90	2.74	2.62	2.45
8233	AMP	13.25	....	....	....
8295	PENTA	135.00	....	....	....
8254	AMP	15.50	13.75	13.20	....
8268	AMP	150.00	....	....	....
8269	AMP	190.00	....	....	....
8270	AMP	66.25	....	....	....
8295/172	PENTA	135.00	....	....	....
9001	RCA	5.40	4.85	4.82	....
9002	RCA	4.15	3.76	3.35	2.96
9003	RCA	5.40	4.60	4.20	3.83
9004	RCA	4.90	4.25	3.90	....
9005	RCA	8.05	7.25	6.61	....
9006	RCA	2.70	2.39	2.12	....
18504	AMP	22.50	20.25	18.03	....
18504T	AMP	25.00	22.50	20.03	....
18505	AMP	46.00	41.40	36.85	....
18506	AMP	50.00	45.00	40.05	....
18515	AMP	75.00	67.50	60.08	....
18516	AMP	125.00	122.50	100.13	....
18517	AMP	190.00	171.00	152.19	....
18518	AMP	275.00	247.50	222.51	....
18522	AMP	55.00	54.45	48.47	....
18529	AMP	31.50	28.35	25.24	....
18536	AMP	90.00	81.00	72.00	....
18550	AMP	25.00	22.50	20.03	....
18552	AMP	60.00	54.00	48.06	....

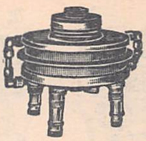
MATCHED PAIRS

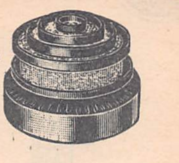
Type	Replacement	NET
GLN709-MP	6BQ5, EL84	8.60
GLKT66-MP	6L6, 6L6G, 5881, 5932, 1614, 1622, 7027, 6CN5, EL35, EL36, EL37, EL39	10.00
GLKT77-MP	6L6GB, EL34, 6CA7, 7581	12.00
GLKT88-MP	6L6GC, 6550, 7027A	14.90

GOLD LION CUSTOM TUBES

Mfg. No.	Type	Replacement (with no circuit changes)	NET
GL-B739	Dbl. Triode	12AT7, ECC81, E81CC, 6060, 6201, 6679, B309	3.20
GL-B749	Dbl. Triode	12AU7, ECC-82, 5814, 6067, 6189, 6680	2.80
GL-B759	Dbl. Triode	12AX7, ECC83, 5721, 5751, 6057, 6681, 7025, 7247	3.00
GL-D717	Dbl. Diode	6AL5, 5726, 6058, 6097, 6663, EAA91, EB91, D77	3.80
GL-KT66	Beam Pwr. Tet.	6L6, 6L6G, 5881, 5932, 1614, 1622, 7027, 6CN5, EL35, EL36, EL37, EL39	4.50
GL-KT77	Beam Pwr. Tet.	6L6GB, EL34, 6CA7, 7581	5.50
GL-KT88	Beam Pwr. Tet.	6L6GC, 6550, 7027A	6.95
GL-N709	Output Pent.	6BQ5, EL84	3.80
GL-U52	Full Wave Rect.	5U4G, 5T4, 5931	2.90
GL-U77	Full Wave Rect.	GZ30, GZ32, GZ33, GZ34, 5AR4, 5V4, 5Z4	3.70
GL-U707	Full Wave Rect.	6X4, 6BX4, U78, EZ90, 5993, 6063, 6202, 6203	3.40
GL-U709	Full Wave Rect.	6CA4, EZ81	3.20
GL-Z729	Low Noise Pent.	EF86, 6267, 6CF8	3.00

INDUSTRIAL & SPECIAL PURPOSE TUBES





GENERAL ELECTRIC

CERAMIC TUBES

Type	1-4	5-18	19-49	50-99
7077	25.00	25.00	25.00	....
7266	21.50	19.05	16.60	....
7462	25.00	22.00	19.00	....
7486	25.00	22.00	19.00	....
GL6442	39.25	36.70	2.10	2.06

TWIN TRIODE AMPLIFIER

Type	1-4	5-18	19-49	50-99
6AS7GA	4.95	4.29	3.99	3.52
5670	2.95	2.67	2.39	2.11
5687	4.00	3.47	3.23	2.86
5687WA	6.13	5.55	4.97	4.38
5691	8.75	7.55	7.05	6.23
5692	8.25	7.12	6.64	5.88
5719	3.15	2.85	2.55	2.25
5751	2.95	2.55	2.38	2.10
5751WA	2.95	2.55	2.38	2.10
5814A	3.30	2.85	2.67	2.36
5844	2.30	1.96	1.83	1.61
5963	1.50	1.30	1.21	1.04
5964	1.55	1.34	1.25	1.10
5965	1.90	1.72	1.54	1.36
6111	4.30	3.88	3.46	3.04
6112	4.45	4.02	3.59	3.16
6080	5.35	4.63	4.32	3.81
6201	2.95	2.54	2.37	2.10
6211	2.15	1.89	1.72	1.66
6386	7.40	6.40	5.96	5.26
6463	1.90	1.78	1.58	1.33
6680/12AU7	1.22	1.08	1.00	....
6681/12AX7	1.26	1.18	1.05	....
6829	6.10	5.26	4.91	4.43
7167	2.00	1.67	1.34	1.01
7247	1.51	1.39	1.27	1.05

TRANSMITTING TUBES

Type	1-4	5-18	19-49	50-99
2E24	5.20	4.70	4.20	3.70
892	270.00	235.00	....	....
GL1614	4.10	3.52	3.12	2.93
6146	4.35	3.92	3.49	3.05
GL801A	13.00	12.15	10.79	....
GL811A	6.90	6.21	5.80	5.12
GL812A	6.90	6.21	5.80	5.12
GL815A	28.35	24.75	21.75	....
GL829B	19.00	16.60	14.60	....
GL892	270.00	235.00	....	....
GL5556	39.00	35.10	32.60	....
GL5736	205.00	185.00	....	....
GL5762	255.00	....	....	....
GL6161	125.00	110.00	....	....
GL6166A/7007	1200.00	....	....	....

PHOTO TUBES

Type	1-4	5-18	19-49	50-99
GL1P21	54.50	47.60	41.90	....
GL1P39	2.45	2.11	1.99	1.86
GL1P40	3.75	3.22	3.00	2.60
GL1P41	4.00	3.79	3.37	2.80
GL868	3.90	3.66	3.41	3.00
GL922	3.10	2.91	2.71	2.38
GL923	3.40	3.10	2.88	2.53
GL930	3.10	2.79	2.60	2.30

BEAM POWER TRANSMITTING TUBES

Type	1-4	5-18	19-49	50-99
4CX250B	39.00	36.50	34.50	....
4CX250R	55.50	52.00	47.50	....
4E27A	50.00	46.50	44.00	....
4X150A	26.50	24.38	21.45	....

DAMPER

2-25A	24.00	22.56	21.12	....
8020 (100R)	21.50	20.00	18.80	....

GRID CONTROL RECTIFIER

KY21A	26.75	25.00	23.35	....

TETRODE AND PENTODE TRANSMITTING TUBES

Type	1-4	5-18	19-49	50-99
4CX300A	58.50	53.82	48.34	....
4CX1000A	181.00	162.52	....	....

IGNITRON

Type	1-4	5-18	19-49	50-99
GL5550	49.00	46.50	....	....
GL5551A	65.00	61.30	....	....
GL5552A	99.00	92.50	....	....
GL5553B	245.00	231.00	....	....
GL5554	215.00	202.00	....	....
GL5555	316.00	300.00	....	....
GL5564	850.00	....	....	....

RECTIFIER TUBES—FULL WAVE

Type	1-4	5-18	19-49	50-99
2X2A	3.05	2.75	2.45	2.15
5R4GYA	2.05	1.76	1.64	1.45
5Y3WGTB	5.75	4.95	4.61	4.08
GL5642	2.45	2.21	1.97	1.73
6087SY3WGTB	5.75	4.95	4.61	4.08
6202/6X4WA	2.85	2.46	2.29	2.03
6203	4.10	3.53	3.29	2.92

GAS RECTIFIER

575A	20.15	17.60	15.50	....
GL816	2.95	2.64	2.47	2.18
GL857B	218.50	200.00	....	....
GL866A	2.65	2.25	1.85	....
GL872A	9.90	8.92	7.94	6.95
GL5558	17.50	16.35	14.40	....

DUAL DIODE RECTIFIERS

5726/6AL5W	1.55	1.33	1.24	1.10
6663/6AL5	.92	.86	.77	....

DAMPER

3B24W	10.55	9.85	8.80	....

POWER PENTODES

Type	1-4	5-18	19-49	50-99
1AGH	3.05	2.85	2.53	....
6AN5	3.75	3.58	3.16	....
5636	6.10	5.12	4.70	4.35
5686	3.40	2.92	2.72	2.40
5725/6A56W	3.80	3.26	3.05	2.69
5881	3.50	3.02	2.82	2.64
5899	5.50	4.92	4.40	3.93
6005/6AQ5	3.95	3.40	3.18	2.81
6046	1.55	1.33	1.24	1.11
6397	8.30	7.74	6.94	....
6669/6AQ5	1.06	.99	.88	....
6677/6CL6	1.85	1.64	1.52	....
7355	1.51	1.36	1.21	1.05

RF PENTODES

1AH4	1.35	1.26	1.12	....
1AJ5	1.55	1.45	1.30	....
5654	3.05	2.62	2.44	2.16
5693	6.60	5.70	5.31	4.70
5840	5.35	4.83	4.31	3.79
6134	5.70	4.90	4.58	4.04
6136/6AU6WA	2.70	2.44	2.18	1.91
6485	2.05	1.92	1.76	....
6662/6BJ6	1.29	1.20	1.06	....

AF PENTODES

5879	1.95	1.73	1.54	....

EIMAC

POWER GRID

Type	1-4	5-18	19-49	50-99
20C1	18.50	17.00	15.00	14.00
2-240A	50.00	46.00	40.94	38.52
2C39A	20.75	19.15	16.86	....
3W5000F3	245.00	....	....	....
3X2500A3	200.00	184.00	....	....
3X2500F3	205.00	194.00	....	....
3X3000A1	210.00	200.00	....	....
4W20000A	1950.00	....	....	....
4CN15A	58.50	53.82	48.34	....
4CX5000A	495.00	465.00	....	....
4PR60A	107.00	98.44	87.64	....
4X500A	128.50	120.00	....	....
6C21	93.00	85.56	84.64	....
RX21A	25.75	24.00	22.50	....
250R	38.50	36.00	33.75	....

TV. CAMERA; IMAGE ORTHAGON

Type	1-4	5-18	19-49	50-99
GL7038*	205.00	....	....	....
GL7293	1300.00	....	....	....
GL8092/ZL-7802	1975.00	....	....	....
GL8093/ZL-7803	1350.00	....	....	....

*Vidicon

THYRATRON

Type	1-4	5-18	19-49	50-99
2D21	1.30	1.18	1.06	.92
6D4	2.85	2.33	2.17	2.00
502A	2.30	1.97	1.84	1.62
2050	2.40	2.04	1.91	1.69
2050A	2.25	2.03	1.81	1.58
5663	2.10	1.82	1.70	1.50
5696	2.05	1.85	1.51	....
6011/710	13.00	12.20	11.35	....
6014/C1K	12.90	11.80	10.50	....
FG27A	52.00	46.45	41.40	....
FG172	122.00	116.00	....	....
GL3C23	11.98	11.20	9.90	....
GL393A	13.25	12.35	10.90	....
GL672A	39.85	35.00	30.40	....
GL5557	9.50	8.85	7.85	....
GL5560	33.00	30.80	27.20	....
GL6807	29.30	27.80	25.60	....
GL6808	30.50	28.90	26.60	....
GL6809	31.00	29.45	27.00	....
GL6858/760	28.10	26.50	24.70	....

VOLTAGE REGULATOR

OA2	1.32	1.20	1.08	.94
OA3	1.55	1.45	1.30	....
OB2	1.45	1.25	1.17	....
OB3	2.35	2.22	2.00	....
OC3	1.50	1.30	1.21	1.07
OD3	1.45	1.45	1.30	....
5651	1.78	1.61	1.44	1.27

TRIODE AMP

Type	1-4	5-18	19-49	50-99
6072A	5.00	4.52	4.04	3.55
6100	2.50	2.26	2.02	1.78
6135	2.40	2.05	1.91	1.69

MIXER; PENTAGRID CONVERTER

6678/6U8A	1.62	1.47	1.32	1.16
5750/6BE6W	3.45	2.97	2.76	2.44

CRT

5UPI	12.45	11.20	9.95	8.70

DIODE

5896	3.75	3.24	3.03	2.67

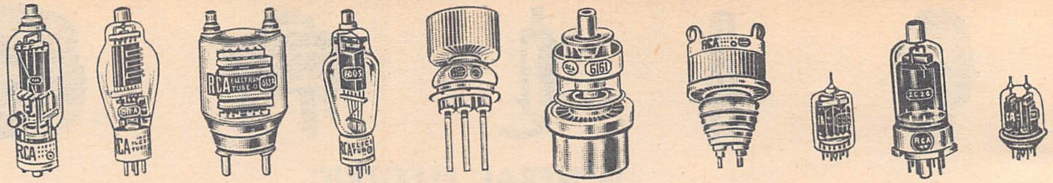
CONTROL TUBE

OA4G	1.90	1.78	1.58	....

TRANSMITTING TRIODES

Type	1-4	5-18	19-49	50-99
3CX100A5	31.25	28.75	25.30	....
4-65A	28.50	26.50	25.00	....
4-125A	36.00	33.80	31.80	....
4-250A	46.50	42.00	39.30	....
4-400A	48.00	45.00	42.00	....
4-1000A	132.00	123.00	....	....
25T	28.50	26.22	23.08	....
35T	33.00	30.69	28.89	....
75TH	43.00	39.56	34.83	....
75TL	43.00	39.56	34.83	....
100TH	23.50	22.00	20.60	....
100TL	23.50	22.00	20.60	....
250TH	38.50	36.00	33.75	....
250TL	38.50	36.00	33.75	....
304TH	75.00	69.00	60.72	....
304TL	75.00	69.00	60.72	....
450TH	85.00	78.20	68.82	....
450TL	85.00	78.20	68.82	....
592/3-2000A3	46.00	42.50	40.00	....
750TL	169.00	....	....	....
1000T	169.00	....	....	....

SPECIAL PURPOSE TUBES



VACUUM POWER TUBES FOR CW APPLICATIONS

All natural cooled except (*) forced air and (#) water.

Type	Descpt.	Heater		Max. Plt. Ratings				
		V.	A.	V.	1-4	5-18	19-49	50-99
2E26	Beam Power	6.3	0.8	750	3.75	3.37	2.99	2.60
3A4	Pentode	1.4F 2.8	.2 .1	150d	1.25	1.04	.97	.86
3A5	Twin Triode	1.4F 2.8	.22 .11	135d	2.05	1.77	1.65	1.45
6F4	Acorn Triode	6.3	.225	150d	13.10	11.85	10.65	9.35
807	Beam Power	6.3	0.9	2750	3.00	2.71	2.53	2.21
810	Triode	10F	4.5	2500	26.95	23.50	20.70	
811A	Triode	6.3F	4	1500	6.90	6.21	5.80	5.12
812A	Triode	6.3F	4	1500	6.90	6.21	5.80	5.12
813	Beam Power	10F	5	2500	23.15	20.20	17.18	
814	Beam Power	10F	3.25	1500	28.35	27.00	23.80	
815	Tw. Beam Pwr.	6.3 12.6	1.6 0.8	500	28.35	24.75	21.75	
828	Beam Power	10F	3.25	2000	32.95	29.15	25.22	....
829B	Tw. Beam Pwr.	6.3 12.6	2.25 1.125	750	19.00	16.60	14.60	
832A	Tw. Beam Pwr.	6.3 12.6	1.6 0.8	750	15.90	13.90	12.20	
833A	Triode	10F	10	3300 3000	53.65	48.20	45.00	
892#	Triode	22F	60	15000	270.00	259.00		
892R*	Triode	22F	60	12500	425.00	408.00		
955	Acorn Triode	6.3	0.15	180	7.05	6.27	5.58	....
1625	Beam Power	12.6	0.45	750	4.75	4.30	4.00	3.54
5675	Pencil Triode	6.3	0.135	165	16.05	13.82	12.90	11.40
5686	Beam Pwr.	6.3	0.35	1500	3.40	3.13	2.94	
5713*	Triode	3.3	11.5	6200	280.00	275.00		
5762/ 7C24*	Triode	12.6F	29	5000 6200	230.00	205.00		
5763	Beam Power	6	0.75	300	2.53	2.19	2.04	1.81
5876	Pencil Triode	6.3	0.135	360	14.95	12.90	12.04	10.66
5893	Pencil Triode	6	0.28	320	20.75	17.78	14.81	....
6146	Beam Power	6.3	1.25		4.35	3.92	3.49	3.05
6159	Beam Power	26.5	0.3	1600	4.80	4.32	3.84	3.35
6161*	Triode	6.3	3.4	6000	125.00	110.00		
6166*	Beam Power	5F	174	6900	850.00			
6181*	Beam Power	120 Max.	1.6	2000	1015.00	988.00		
6417	Beam Pwr.	12.6	.375	300	3.04	2.75	2.46	2.17
7054	Pentode	12-15	.275 @13.5 V.	300	1.55	1.33	1.24	1.09
7060	Triode-Pentode	12-15	.28@ 13.5V.	300	1.95	1.69	1.59	1.36
7094*	Beam Power	6.3	2.85	2000	29.30	25.75	22.80	
7558	Beam Power	6.3	0.8	300	3.50	3.02	2.82	2.48
7580*	Beam Pwr.	6	2.6	2000	45.05	39.30	34.60	
8005	Triode	10F	3.25	1500	17.85	16.15	14.70	

PHOTOCONDUCTIVE CELLS

All cadmium-sulfide head-on type. (*) Flexible leads.

Type	Max. Spectral Response in angstroms	Max. Rtgs.		Char.@25°C.					
		V. Between Terms. DC	Pwr. Dis. W.	V. Between Terms.	Illum. Sens. μa/fc	1-4	5-18	19-49	50-99
6694A	5000	150	.03	90	4	5.40	4.86	4.54	4.00
6957	5800	250	.5	50	4000	3.20	2.90	2.70	2.40
7412*	5800	200	.05	12	110	2.10	1.86	1.73	1.53

RCA PHOTOJUNCTION CELLS

Very small photojunction cell, side-on type, employing a germanium p-n alloy junction.

Type	Max. Spectral Resp. in angstroms	Max. Rtgs.		Char.@25°C.					
		Polarizing V.	Pwr. Diss. W.	Illum. Sens. μa/fc	Max. Dark Cur.	1-4	5-18	19-49	50-99
7467	15000	50	.030	.7	35	8.75	7.92	7.40	5.36

PHOTOTUBES VACUUM TYPES

Type	Description	Anode Supply dcV or Peak acV	Max. Anode Dark I @25°C	1-4	5-18	19-49	50-99
1P39	For relay app.	250	.005	2.45	2.20	1.95	1.70
1P42	Small head-on type	180	.005	13.95	12.60	11.80	10.40
917	Low-leakage type	500	.005	6.00	5.40	4.80	4.20
922	Cartridge type	500	.005	3.10	2.78	2.60	2.29
925	Short-bulb type	250	.0125	3.65	3.14	2.94	2.55
926	Cartridge type	500	.0005	3.75	3.22	3.00	2.60
929	For relay app.	250	.0125	2.35	2.12	1.89	1.65
934	For sound eqpt.	250	.0005	4.15	3.57	3.33	2.90
6570	For industrial app.	500	.013	9.00	7.75	7.24	6.30

PHOTOTUBES—GAS TYPE

Type	Description	Anode Supply	Luminous μa/fc					
		dcV or Peak acV	0 cps	10000 cps	1-4	5-18	19-49	50-99
1P29	For colorimetric applic.	100	40	31	4.80	4.12	3.84	3.35
1P40	For sound reproduction	90	135	101	3.75	3.36	3.14	2.77
1P41	End type	90	90	67	4.00	3.60	3.10	2.90
868	For sound reproduction	100	90	67	3.90	3.66	3.41	3.00
918	For sound reproduction	90	150	105	4.45	3.90	3.62	3.29
920	Twin type	90	100	74	6.40	5.51	5.14	4.45
921	Cartridge type	90	135	108	3.50	3.14	2.94	2.59
923	For renewal use	90	135	101	3.40	3.00	2.80	2.47
927	For 16-mm sound eqpt.	90	125	100	4.25	3.82	3.39	2.95
930	For sound reproduction	90	135	101	3.10	2.79	2.60	2.30
5581	For sound reproduction	100	135	108	3.45	3.10	2.90	2.55
5582	For sound reproduction	100	120	96	5.40	4.76	4.45	3.85
5583	For sound reproduction	100	135	108	4.80	4.22	3.94	3.40

IMAGE ORTHICONS

Type	Target Mesh		Amplitude response			
	Spacing (inches)	Cap. (μμf)	@400 TV Lines	1-4	5-24	25-99
5820-A	.0022	100	50	1200.00	1070.00	....
7513	.0007	300	45	1320.00	1230.00	....
4401 Matched	.0022	100	50	1400.00	....	....
4401 Unmatched	....	....	....	1320.00	....	....

SPECIAL PURPOSE TUBES

PHOTO MULTIPLIER TUBES

Type	Description	Spectr. Resp.	Av. Anode Cur.	Av. Anode Ampl.	1-4	5-18	19-49	50-99
1P21	9-stage type	S-4	.1	$2x10^6$	54.50	47.60	41.90	....
1P22	9-stage type	S-8	1.0	$3.3x10^5$	15.80	13.50	12.30	....
1P28	9-stage type	S-5	.5	$1.25x10^6$	28.10	24.50	21.80	....
931A	9-stage type	S-4	1.0	$.8x10^6$	11.15	10.01	9.45	8.35
6199	10-stage, head-on flat-face type	S-11	.75	$6x10^5$	52.00	45.62	40.15	....
6342A	10-stage, head-on flat-face type	S-11	2.0	$1.75x10^5$	60.10	52.50	....	....
6655A	10-stage, head-on, flat-face type	S-11	.75	$9x10^5$	60.00	52.50	....	....
6810A	14-stage, head-on, flat-face type	S-11	2.0	$12.5x10^6$	225.00	211.00	....	....
7046	14-stage, head-on, flat-face type	S-11	2.0	$3x10^6$	570.00	540.00	....	....
7102	10-stage, head-on, flat-face type	S-1	.01	$1.5x10^5$	110.00	100.00	88.50	....
7265	14-stage, head-on, flat-face type	S-20	1.0	$9.35x10^6$	425.00	400.00	....	....

VIDICONS

Type	Max. Overall Length (in.)	1-4	5-18	19-49	50-99
6326	6.5	515.00	475.00	....	....
7038	6.5	205.00	195.00	....	....

THYRATRONS

TRIODES (MERCURY-VAPOR TYPES)—For Control Service

Type	Filament (F) or Heater Volts	Filament (F) or Heater Amp.	Approx. Tube Drop Volts	Max. Peak Inverse Anode Volts	Max. Peak Anode Amps.	1-4	5-18	19-49	50-99
3C23	2.5F	7	15	1250 200	6 6	11.98	11.20	9.90	....
676	5	10	12	2500 750	40 77	63.80	60.25	....	....
677	5	10	12	10000	16	63.80	60.25	....	....
5557	2.5F	5	16	10000 5000 1250	1 2 3	9.50	8.85	7.85	....
5559	5	4.5	16	1000	15	23.00	21.60	19.30	....
5563A	5F	10	15	20000 15000 20000 15000	6.4 10 11.5 11.5	50.00	42.50	37.40	....

TRIODES (GAS TYPES)—For Control Service

884	6.3	0.6	16	....	0.3	2.28	1.97	1.84	1.63
885	2.5	1.5	16	....	0.3	2.00	1.87	1.65	....
6130/ 3C45	6.3	2.3	150	3000	35	17.80	14.75	....	....
C1K/ 6014	2.5F	6.3	8	1250	8	13.10	11.30	10.05	....
C3J/ 5632	2.5F	9	10	1250	30	13.80	12.05	10.73	....
C3JA/ 5684	2.5F	9	10	1250	30	14.50	12.70	11.25	....
C6J/ 5C21	2.5F	21	9	1250	77	28.10	23.92	19.75	....
C6JA/ 5685	2.5F	21	9	1250	77	29.00	24.73	20.15	....
C16J/ 5665	2.5F	31	11	1250 1250	160 100	56.90	49.80	44.30	....

TETRODES (MERCURY-VAPOR TYPES)—For Control Service

Type	Filament (F) or Heater Volts	Filament (F) or Heater Amp.	Approx. Tube Drop Volts	Max. Peak Inverse Anode Volts	Max. Peak Anode Amps.	1-4	5-18	19-49	50-99
172	5 5.5	10 11	16	2000 750	40 77	122.00	116.00	....	....
672A	5	5	12	2500	40	39.85	35.00	31.00	....
5560	5	4.5	16	1000	15	33.00	30.80	27.20	....

THYRATRONS—Continued

TETRODES (GAS TYPES)—For High-Sensitivity Control Service

Type	Filament (F) or Heater Volts	Filament (F) or Heater Amp.	Approx. Tube Drop Volts	Max. Peak Inverse Anode Volts	Max. Peak Anode Amps.	1-4	5-18	19-49	50-99
2D21	6.3	0.6	8	1300	0.5	1.29	1.12	1.04	.92
2D21W	......	....	......	....	....	2.90	2.61	2.32	2.04
3D22A	6.3	2.6	10	1500	8	25.50	22.50	19.60	....
2050	6.3	0.6	8	1300	1	2.37	2.04	1.91	1.69
5696	6.3	0.15	10	500	0.1	2.05	1.74	1.63	1.44
5727	6.3	0.6	8	1300	0.5	2.90	2.47	2.31	2.04
5727/ 2D21W	......	....	......	....	....	2.90	2.47	2.31	2.04
6012	6.3	2.6	10	1300	5	7.65	6.63	6.28	5.46

RECTIFIERS

VACUUM HALF-WAVE TYPE

Type	Filament (F) or Heater Volts	Filament (F) or Heater Amp.	Max. Peak Inverse Volts	Max. Peak Amperes	1-4	5-18	19-49	50-99
2X2A....	2.5	1.75	12500d	0.06d	3.10	2.78	2.60	2.28
5R4GYB	5F	2	3100	0.715m	2.03	1.76	1.64	1.45
579B	2.5F	6	20000	0.27	20.50	17.90	16.00	....
836	2.5	5	5000	1	11.10	10.05	9.40	8.30
1616	2.5F	5	6000	0.8	13.90	12.55	11.71	10.35
5825	1.6F	1.25	60000	0.04	22.90	20.00	17.60	....
6173	6.3	0.135	1000	1.	15.05	13.62	11.19	10.74
8013A	2.5F	5	40000d	0.15	17.05	15.00	13.00	....

MERCURY-VAPOR (HALF WAVE TYPES)

Type	Filament (F) or Heater Volts	Filament (F) or Heater Amp.	Tube Voltage Drop	Max. Peak Inverse Volts	Max. Peak Amperes	1-4	5-18	19-49	50-up
83	5F	3	15	1550d	1dm	1.89	1.64	1.52	1.35
575A	5F	10	10	15000 10000 15000 10000	6 7 10 10	20.15	17.60	15.50	....
816	2.5F	2	15	7500	0.5	2.95	2.64	2.47	2.18
857B	5F	30	15	22000 10000	40 40	218.50	200.00	....	....
866A	2.5F	5	15	10000 5000 2500	1 1 2	2.65	2.25	1.85	....
872A	5F	7.5	10	10000 5000	5 5	9.90	8.92	7.94	6.95
5558	5	4.5	15	5000 2000	15 15	17.50	16.35	14.40	....
8008	5F	7.5	10	10000 5000	5 5	9.90	8.52	6.95	....

GAS TYPES (HALF-WAVE)

3B25	2.5F	5	10	4500	2	7.75	7.00	6.54	5.40
3B28	2.5F	5	10	10000 5000	1 2	6.00	5.44	5.08	4.20

PENCIL TRIODE VACUUM POWER TUBES FOR RF-PULSE APPLICATIONS

Type	Cooling	Peak Plate Volts	Peak Plate amps	Approx. Kw out.	1-4	5-18	19-49	50-up
5893	Natural	1750	3	1.2	20.75	17.78	14.81	....

BEAM POWER TUBE MODULATORS

(*) For twin beam.

Type	Heater Volts	Heater Amps	Max. Plate DCV	Max. Peak Plate Amps	Approx. Kw out.	1-4	5-18	19.49	50-up
3E29	6.3 12.3	2.25 1.125	5000	10 5 0.25	40*	19.00	16.55	14.60	....
6293	6.3	1.25	3500	3 1 0.2	3.4	5.95	5.35	4.75	4.15

PENCIL DIODE VACUUM POWER TUBE FOR SPECIAL APPLICATIONS

Type	Cooling	Heater Volts	Heater Amps	Peak Plate Volts	1-4	5-18	19-49	50-up
6173	Natural	6.3	.135	150	15.05	13.62	11.19	10.74

INDUSTRIAL & SPECIAL PURPOSE TUBES

SYLVANIA

BEAM POWER OUTPUT

Type	1-4	5-18	19-49	50-99
6V6GTY	1.45	1.37	1.24	....
28D7	4.95	4.48	4.01	3.54

BEAM POWER TRANSMITTING TUBE

5933	12.35	11.55	10.25	....
5933WA	16.50	15.43	13.70	....
6146A	5.00	4.65	4.47	4.16

CATHODE RAY TUBE

2BP1	19.05	16.65	14.65	....
7J/VPI	21.24	19.62	....	....
10NP11	102.00	....	....	....

COUNTER TUBES

6476	13.37	12.70	....	....
6802	11.43	10.80	....	....
6909	11.43	10.69	....	....

DETECTOR

6AN6	3.75	3.56	3.19	....

DIODE

5722	6.60	6.00	5.40	4.80

DUAL CONTROL PENTODE AMP.

7AK7	8.15	7.38	6.61	5.82
6888	6.90	6.42	6.17	5.69

DUODIODE

6SN7WGT	2.35	2.22	2.00	....
6SN7WGTA	4.90	4.50	3.90	....
7F8W	7.05	6.46	6.20	5.61
12ATCWA	3.05	2.84	2.73	2.52
5642	3.00	2.94	2.85	2.79
6350	2.15	1.90	1.65	1.39
6947	12.35	11.51	11.07	10.19
7044	3.20	2.77	2.40	....
GB407A	5.90	5.49	5.24	4.84
GB408A	4.95	4.60	4.42	4.07
GB5726	1.55	1.45	1.40	1.29

KLYSTRON

6BL6	37.00	34.41	33.03	30.57
6BM6	38.95	36.22	34.96	33.30

GLOW MAGNATRON

Type	1-4	5-18	19-49	50-99
R1131C	15.25	....	....	....

NOISE GENERATING DIODE

5722	6.60	6.00	5.40	4.80

PENTODE AMPLIFIER

6AJ5	3.85	3.33	3.12	2.75
6AS6	3.43	2.97	2.77	2.45
6AU6WA	2.95	2.74	2.64	2.44
6BA5	4.70	4.44	....	....
6SJ7WGT	2.55	2.40	2.12	....
6SL7WGT	3.15	2.99	2.64	....
1222A	2.45	2.15	2.07	1.91
5636	6.75	6.29	6.05	5.57
5639	6.55	5.67	5.28	4.68
5654	3.05	2.62	2.44	2.16
5725/6AS6W	3.80	3.26	3.05	2.69
7695	2.48	2.30	2.20	2.03

SUB. MIN. PENTODE

5840	5.85	5.45	5.23	4.82
5899	6.05	5.63	5.39	4.97
5902	5.25	4.89	4.70	4.33
6205	5.90	5.39	5.18	4.78

POWER AMPLIFIER

2C39WA	30.00	27.90	25.74	23.73
GL5736	205.00	182.00	....	....

RECEIVING

7199	1.19	1.11	1.06	.98

RECTIFIER

5Y3WGTA	4.05	3.44	3.21	2.86
579B	20.50	17.90	16.00	....

ROCKET PLANAR

6481	38.30	36.00	32.00	....

STROBOTRONS

1D21/SN4	7.10	6.21	5.55	....
SA309	16.00	....	....	....

TETRODE AMP.

Type	1-4	5-18	19-49	50-99
1229	5.35	5.00	4.48	....

THYRATRON

OA5	6.96	....	....	....
6D4	2.85	2.44	2.18	1.94
5727	2.90	2.47	2.31	2.04
5727/2D21W	2.90	2.47	2.31	2.04
5823	1.72	1.49	1.39	1.23
6011/710	13.80	12.90	12.38	11.42
6012	7.65	7.08	6.80	6.26
6483	3.09	....	....	....

IGNITRON

R1130B	20.40	....	....	....

VOLTAGE REGULATOR

2B2WA	3.00	2.58	2.40	2.12

TRIODE AMP.

6AD4	3.70	3.51	3.18	....
5814A	3.35	2.85	2.67	2.36
6112A	5.05	4.64	4.33	3.65
7025	1.45	1.31	1.16	1.02
7738	2.62	2.42	2.32	2.09

DUOTRIODE

5670	3.00	2.79	2.68	2.48
5687	4.00	3.72	3.58	3.30
5751	2.95	2.84	2.73	2.52
5963	1.04	.97	.93	.90
GB5965	1.95	1.81	1.74	1.49
GB6201	2.95	2.74	2.63	2.43

SUB. MIN. TRIODE

5719	3.50	3.16	3.04	2.80

UHF-VHF TRIODE

6AK4	3.10	2.95	2.64	....
6BF7W	4.20	4.09	3.51	....
5718A Sul.	4.00	3.84	3.38	2.84
5904	7.90	6.30	4.40	4.20
6021	4.35	3.63	3.32	3.08
6111	5.05	4.69	4.37	3.66

MULLARD

TRIODE AMPLIFIER

Type	1-4	5-18	19-49	50-99
7025	2.15	1.87	1.76	1.59
EABC80/6AK8	2.30	2.00	1.88	1.72
ECL80/6AB8	2.50	2.18	2.06	1.84
ECC82/12AU7	2.00	1.74	1.64	1.50
ECC83/12AX7	2.00	1.74	1.64	1.50
ECF86/6HG8	2.80	2.43	2.29	2.07
EBC90/6AT6	1.80	1.57	1.48	1.35
EBC91/6AV6	1.75	1.52	1.43	1.29
HBC91/12AV6	1.75	1.52	1.43	1.29

DUAL TRIODE

7247	2.30	2.00	1.88	1.70
ECC81/12AT7	2.30	2.00	1.88	1.72

REMOTE CUT-OFF PENTODE

EBF89/6DC8	2.40	2.09	1.97	1.78
EF89/6DA6	2.40	2.09	1.97	1.80
EF93/6BA6	1.80	1.57	1.48	1.34
EF183/6EH7	2.35	2.04	1.92	1.74

VHF-UHF TRIODE

Type	1-4	5-18	19-49	50-99
ECF80/6BL8	2.75	2.39	2.25	2.06
PCF80/9A8	2.95	2.56	2.41	2.20
ECC85/6AQ	2.15	1.87	1.76	1.61
PCF86/7HG8	2.40	2.09	1.96	1.80
EC90/6C4	2.60	2.24	2.11	1.93
ECC91/656	2.30	1.80	1.69	1.53
EC95/6ER5	2.20	1.91	1.80	1.64

HEPTODE MIXER

ECH81/6AJ8	2.40	2.09	1.97	1.79
EK90/6BE6	1.90	1.65	1.55	1.40

PENTODE AMPLIFIER

EF86/6267	2.25	1.96	1.84	1.66
EF94/6AU6	1.85	1.61	1.52	1.37
EF95/6AK5	2.95	2.57	2.42	2.21
EF184/6EJ7	2.35	2.04	1.92	1.74
ECL84/6DX8	2.60	2.24	2.11	1.93

POWER PENTODE

Type	1-4	5-18	19-49	50-99
EL84/6BQ5	1.95	1.70	1.60	1.46
PL84/15CW5	2.25	1.96	1.84	1.48
EL95/6DL5	2.30	2.00	1.88	1.70
EC97/6FY5	2.15	1.87	1.76	1.59

UHF CASCODE

ECC88//6DJ8	2.80	2.44	2.30	2.10
ECC189/6ES8	3.15	2.74	2.58	2.35

BEAM POWER OUTPUT

EL90/6AQ5	1.95	1.69	1.59	1.44
EB91/6AL5	1.75	1.52	1.43	1.29

NATIONAL ELECTRIC

THYRATRON

Type	1-4	5-18	19-49	50-99
C1K/6014	13.10	11.97	10.64	....
C3J/5632	13.80	12.05	10.73	....
NLC3J/5684NE	16.70	....	....	....
5560/FG95	33.00	....	....	....
NL632B	33.00	30.80	27.20	....
NL704P	21.60	19.23	17.12	....
NL710/6011	13.00	11.50	10.30	....
NL710L/7518	17.00	15.13	13.47	....
NL710L/7518	15.25	13.58	12.10	....
NL714	9.50	8.85	7.80	....
NL716	12.50	11.65	10.30	....
NL740	20.80	17.52	15.40	....
NL740L	21.40	20.00	17.65	....
NL760	28.10	26.40	23.20	....
NL760L	29.40	27.10	23.85	....
NL760P	29.40	28.00	24.70	....
NL5559/FG57	23.00	....	....	....
NL5665/C16J	56.90	....	....	....
NL5684/C3J1A	14.50	12.91	10.49	....
NL5684 NE	16.70	14.87	13.25	....
NL-6989 NE	33.90	....	....	....
NL-7556 NE	19.60	17.45	15.54	....

IGNITRON

Type	1-4	Type	1-4
NL1051A	65.00	NL1052D	99.00
NL1051P	65.00	NL1053	245.00
NL1052A	99.00	NL5550	49.00

RECTIFIERS

FW

Type	1-4	5-18	19-49	50-99
NL604	11.80	11.00	9.73	....
NL604L	13.00	12.05	10.02	....

½ W

NL615	9.75	8.55	7.05	....
NL623	13.35	12.00	9.42	....
NL635	13.00	12.20	10.70	....
NL635L	13.50	12.60	11.10	....
NL635P	14.15	13.20	11.65	....
NL649/5834	9.20	8.50	7.29	....
NL5558/FG32	17.50	15.58	13.88	....
NL-7723 NE	13.10	....	....	....
NL 7786 NE	15.50	....	....	....

THERMOSEN

KLYSTRONS

Type	1-4	5-18	19-49	50-99
2AS15A	9.00	7.20	6.20	....
2SM15	10.00	8.00	7.00	....
1236C	12.00	11.30	9.00	....

NATIONAL UNION

PENTODE REGULATOR

Type	1-4	5-18	19-49	50-99
6842	14.85	13.75	12.25	....

TRIODE AMPLIFIER

2C53	9.45	....	....	....

Newark Maintains Seven
Giant Warehouses
to Serve Your
Electronic Needs
Quickly and Efficiently

INDUSTRIAL & SPECIAL PURPOSE TUBES

AMPEREX

AMPLIFRAME TRIODE

Type	1-4	5-18	19-49	50-99
2ER5	1.40	1.20	1.12	....
2FY5	1.40	1.20	1.12	....
3ER5	1.40	1.20	1.12	....
6ER5/EC95	1.07	1.00	.94	....
6922/EF86	4.75	4.00	3.73	3.30

AMPLIFRAME PENTODE

7737	7.80	7.31	7.22	....

DIODE

EAA91	.92	.87	.79	....
EA50	1.62	1.53	1.38	....

DUAL DIODE TRIODE

6AL5W/5726	1.90	1.87	1.66	1.47
6AU6/EBC91	.80	.76	.67	....
EB41	1.55	1.47	1.31	....

GEIGER MUELLER TUBES

75N	16.50	14.85	13.20	....
75NB3	16.50	14.85	13.20	....
76NB3	25.80	23.22	20.69	....
80N	45.00	41.40	36.90	....
85A2/0G3	2.30	1.97	....	....
85NB3	22.70	20.43	18.19	....
90NB3/900V	27.00	24.30	21.63	....
E99F/7694	2.90	2.69	2.42	....
100C	54.00	48.60	43.20	....
100CB	58.00	52.20	46.40	....
100HB	54.00	48.60	43.20	....
100LB	54.30	48.87	43.50	....
100N	43.50	41.33	36.98	....
100NB/900V	46.00	41.40	36.85	....
120C	90.00	81.00	72.00	....
120CB	95.00	85.50	76.00	....
120N/900V	90.00	81.00	72.00	....
120NB/900V	95.00	85.50	76.00	....
150N/900V	61.00	54.90	48.87	....
150NB/900V	66.00	59.40	52.87	....
153C	91.00	81.90	72.80	....
155N	61.00	54.90	48.87	....
161G	90.00	81.00	72.00	....
170G	85.00	76.00	66.00	....
171G	110.00	101.00	86.00	....
200C	67.00	60.30	53.60	....
200CB	71.00	63.90	56.80	....
200HB	67.00	60.30	53.60	....
200LB	67.50	60.75	54.08	....
200N	56.00	52.64	47.04	....
200NB/900V	58.50	52.65	46.87	....
230C	43.00	38.70	34.40	....
230N	41.00	36.90	32.80	....
240N	41.00	36.90	32.80	....
912NB3/900V	53.00	47.70	42.45	....
912NB4/900V	53.00	47.70	42.45	....
18504	22.50	20.25	18.03	....
18504T	25.00	22.50	20.03	....
18505	46.00	41.40	36.85	....
18506	50.00	45.00	40.05	....
18515	75.00	67.50	60.08	....
18516	125.00	112.50	100.13	....
18517	190.00	171.00	152.19	....
18518	275.00	247.50	222.51	....
18522	55.00	54.45	48.47	....
18529	31.50	28.35	25.24	....
18536	90.00	81.00	72.00	....
18550	25.00	22.50	20.03	....
18552	60.00	54.00	48.06	....

INDICATOR TUBES

6977	2.50	2.12	1.93	1.79
DM70/1M3	.98	.89	.81	.73
EM34/6CD7	1.83	1.72	1.54	....
EM80/6BR5	1.23	1.18	1.08	....
EM81/6DA6	1.23	1.17	1.05	....
EM84/6FG6	1.48	1.39	1.24	....
Z550M	14.50	12.00	11.50	....

NEWARK
STOCKS COMPLETE LISTINGS
OF
ALL INDUSTRIAL TUBES

PENTODE

Type	1-4	5-18	19-49	50-99
807	3.00	2.51	2.35	2.07
828	32.95	29.15	25.35	....
5654/6AK5W	2.85	2.71	2.42	2.02
6007	1.25	1.25	1.22	1.17
6008	1.25	1.17	....	....
6084/E80F	3.00	....	....	....
6227/E80L	3.05	3.05	2.90	2.72
6688	6.80	6.80	6.65	6.25
6688A	6.86	6.46	....	....
6689	3.60	3.48	3.35	....
7189	1.80	1.76	1.68	....
7788	10.50	9.90	9.42	....
8233	13.25	....	....	....
EBF80	1.27	1.20	1.08	....
EBF89/6DC8	1.60	1.49	1.33	....
ECL82/6BM8	1.60	1.47	1.31	....
EF40	2.12	1.99	1.78	....
EF86/6267	1.38	1.38	1.26	1.10
EF94	1.05	.99	.90	....
EFP60	7.50	7.40	7.28	7.14
EL38	3.40	3.20	3.08	2.90
EL41	1.75	1.70	1.53	....
EL42	1.75	1.70	1.53	....
EL81	2.10	1.97	1.77	....
EL82	1.95	1.80	1.70	....
EL84/6BQ5	1.10	1.02	.90	....
EL86/6CW5	1.43	1.32	1.17	....

PENTODE SHARP CUTOFF

3EH7	1.45	1.25	1.15	....
3EJ7	1.45	1.25	1.15	....
4EH7	1.45	1.25	1.17	....
4EJ7	1.45	1.25	1.17	....
EF41	1.60	1.51	1.36	....
EF42	2.20	2.05	1.85	....
EF50	2.87	2.70	2.43	....

RF PENTODES

E90F/7693	2.90	2.69	2.58	....
EF80/6BX6	1.55	1.40	1.25	....
EF89/6DC6	1.60	1.47	1.31	....
EF183/6EH7	1.45	1.25	1.17	....
EF184/6EJ7	1.45	1.25	1.17	....

PENTODE (POWER)

EF37A	2.90	2.73	2.42	2.05
EL34/6AC7	2.90	2.73	2.44	....
EL37	2.88	2.88	2.69	2.40
EL95	1.07	1.01	.91	....

PHOTO MULTIPLIER

52AUP	95.00	....	....	....
56AUP	325.00	....	....	....
58AUP	465.00	....	....	....
50AVP	62.00	....	....	....
53AVP	65.00	....	....	....
54AVP	158.00	....	....	....
56AVP	540.00	....	....	....
57AVP	550.00	....	....	....
150AVP	62.00	....	....	....
152AVP	130.00	....	....	....
153AVP	80.00	....	....	....
150CVP	84.00	....	....	....
51UVP*	275.00	....	....	....
53UVP*	410.00	....	....	....

*Quartz window.

RECTIFIERS

8270	66.25	....	....	....
152A	1.38	1.28	....	....
3B28	6.50	5.94	....	....
4B32	13.50	12.83	11.93	....
6AL3	1.45	1.25	1.17	....
575A/7136	22.15	19.86	17.24	....
866AX	2.65	2.38	2.22	1.95
872AX	9.90	8.55	7.96	7.05
GZ32	1.80	1.72	1.63	1.51
GZ34/5AR4	2.10	1.97	1.76	....
EZ-40	1.20	1.12	1.08	....
EZ80/6V4	.75	.71	.63	....
EZ81/6CA4	1.05	1.05	.96	.80
EZ90/6X4	.76	.71	.64	....

TETRODE

4-65A	28.00	26.32	24.06	....
6156/4-250A	46.50	43.78	38.83	....
8179	132.00	....	....	....

THYRATRON

Type	1-4	5-18	19-49	50-99
2D21	1.29	1.12	1.04	.92
5545	29.30	27.60	24.25	....
5557/FG17	9.50	8.65	7.40	....
5559	23.00	21.60	19.60	....
5869/AGR9950	25.00	23.39	22.45	22.00
5870	100.00	90.00	86.00	82.49
6279/5C22	45.00	42.40	38.40	....

TRIODES

501R	225.00	213.75	202.50	....
504R	245.00	232.75	220.50	....
892C/6333	270.00	260.00	....	....
892RC/6445	425.00	408.00	....	....
5866	21.40	20.10	18.16	....
5866A	23.30	21.77	18.12	....
5867	30.00	28.00	26.95	26.00
5867NA	32.45	....	....	....
6077	1800.00	....	....	....
6078	2150.00	....	....	....
6617	470.00	....	....	....
6618	670.00	....	....	....
7753	140.00	....	....	....
8254	15.50	13.75	13.20	....
8268	150.00	....	....	....
8269	190.00	....	....	....
EABC80	1.60	1.51	1.36	....
EC81/6R4	2.55	2.42	2.05	....
ECH81/6AJ8	1.70	1.57	1.42	....

TWIN TRIODE

4ES8	2.28	1.97	1.83	....
5894	25.00	23.20	21.40	....
6085/E8CC	3.00	....	....	....
6201	2.95	2.54	2.37	2.10
6463	2.95	2.95	2.70	2.25
7119	2.95	2.48	2.30	2.03
7308	5.20	4.65	4.33	3.83
7316	1.40	1.17	.94	.88
E90CC/5920	2.40	2.21	....	....
E92CC	2.00	1.87	1.65	....
ECC33	2.40	2.24	2.00	....
ECC40	1.95	1.82	1.64	....
ECC81/12AT7	1.53	1.40	1.25	....
ECC82/12AU7	1.23	1.20	1.07	1.00
ECC83/12AX7	1.28	1.28	1.11	1.04
ECC84	1.95	1.83	1.65	....
ECC85/6AQB	1.45	1.32	....	....
EC86/6GM8	2.28	2.28	2.10	1.77
ECC88/60J8	1.89	1.89	1.84	1.73
PCC88	2.20	2.06	1.84	....

TRIODE—PENTODE

E80CF/7643	3.60	3.45	3.16	....
EBC41	1.37	1.29	1.41	....
ECF80	1.52	1.43	1.29	....
ECF86/6HG8	1.60	1.49	1.33	....
UCL82/50BM8	1.50	1.41	1.27	....
ECL86/6GW8	1.70	1.59	1.28	....
PCL82	2.20	2.07	1.85	....

UHF-VHF TRIODES

EC90	1.55	1.48	1.42	....
EC92	1.15	1.06	.94	....
7459	230.00	....	....	....
8177	1850.00	....	....	....

TRIODE HEXODE

ECH42	1.32	1.24	1,12	....

TWIN TETRODE

6252/AX9910	25.00	23.20	21.60	....
6360	5.15	4.80	4.47	....
6360A	5.85	....	....	....
6907	25.00	23.75	12.50	....
6939	12.00	11.60	10.80	10.10
7377	25.00	23.38	20.95	....
7645	10.50	9.75	9.26	....

VOLTAGE REGULATORS

Type	1-4	5-18	19-49	50-99
OA2	1.26	....	....	....
85A1/OE3	2.50	2.31	....	....
90C1	2.25	1.93	....	....
5651	1.78	1.55	1.44	1.27
6354	2.55	2.35	....	....
8228	2.90	2.74	2.62	2.45

INDUSTRIAL & SPECIAL PURPOSE TUBES

NEWARK CARRIES
COMPLETE LINES

WATERMAN ELECTROSTATIC CATHODE RAY TUBES

Type	Phys. Data	1-4	5-18	19-49
2BP1	2" round	18.00	15.75	13.20
2BP2	2" round	19.00	16.60	14.90
2BP7	2" round	20.50	18.00	16.00
2BP11	2" round	19.00	16.60	14.90
2FP1	2" round	22.10	19.35	17.30
2FP2	2" round	23.10	20.20	18.10
2FP4	2" round	23.10	20.20	18.10
2FP7	2" round	24.60	21.60	19.30
2FP11	2" round	23.10	20.20	18.10
3ACP1A	2" round	33.20	29.00	26.00
3ACP2A	2" round	34.20	30.00	26.80
3ACP7A	2" round	35.70	31.20	27.90
3ACP11A	2" round	34.20	30.00	26.80
3AHP1	1½x3" rect.	22.40	19.60	17.50
3AHP2	1½x3" rect.	23.40	20.50	18.30
3AHP7	1½x3" rect.	24.90	21.80	19.50
3AHP11	1½x3" rect.	23.40	20.50	18.30
3AQP1	3" round	16.00	14.00	12.50
3AQP2	3" round	17.00	14.90	13.30
3AQP7	3" round	18.50	16.20	14.45
3AQP11	3" round	17.00	14.90	13.30
3ASP1	3" round	30.40	26.60	23.80
3TSP2	3" round	31.40	27.50	24.60
3ASP7	3" round	31.90	27.90	24.90
3ASP11	3" round	31.40	27.50	24.60
3ATP1	1½x3" rect.	53.80	46.20	41.30
3ATP2	1½x3" rect.	53.80	47.00	42.00
3ATP7	1½x3" rect.	55.30	48.40	43.20
3ATP11	1½x3" rect.	53.80	47.00	42.00
3JP1	3" round	20.50	18.10	16.10
3JP2	3" round	21.50	18.80	16.80
3JP7	3" round	23.00	20.20	18.00
3JP11	3" round	21.50	18.80	16.80
3KP1	3" round	19.10	16.70	14.90
3MP1	3" round	21.60	18.90	16.90
3MP2	3" round	22.60	19.80	17.90
3MP7	3" round	24.10	21.10	18.85
3MP11	3" round	22.60	19.80	17.90
3RP1	3" round	13.25	12.40	12.00
3RP2	3" round	16.50	14.50	12.90
3RP7	3" round	18.00	15.80	14.10
3RP11	3" round	16.50	14.50	12.90
3RP1A	3" round	20.00	17.50	15.65
3RP2A	3" round	21.00	18.40	16.40
3RP7A	3" round	22.50	19.70	17.60
3RP11A	3" round	21.00	18.40	16.40
3SP1	1½x3" rect.	24.10	21.10	18.90
3SP2	1½x3" rect.	25.10	22.00	19.70
3SP7	1½x3" rect.	26.60	23.30	20.80
3SP11	1½x3" rect.	25.10	22.00	19.70
3WP1	3" round	24.60	22.70	20.40
3WP2	3" round	26.50	23.20	20.80
3WP7	3" round	29.30	25.60	22.90
3WP11	3" round	26.50	23.20	20.80
3XP1	1½x3" rect.	26.40	23.10	20.65
3XP2	1½x3" rect.	27.40	24.00	22.40
3XP7	1½x3" rect.	28.90	25.30	22.60
3XP11	1½x3" rect.	27.40	24.00	22.40
3YP1	1½x3" rect.	25.60	22.40	20.00
3YP2	1½x3" rect.	26.60	23.30	20.80
3YP7	1½x3" rect.	28.10	24.60	22.00
3YP11	1½x3" rect.	26.60	23.30	20.80
5ABP/APD1	3" round	27.70	24.20	21.60
5ABP/APD2	5" round	33.80	29.60	26.40
5ABP/APD7	5" round	35.20	30.80	27.50
5ABP/AFD11	5" round	33.80	29.60	26.40
5BTP1	5" round	26.80	23.40	20.90
5BTP2	5" round	27.80	24.40	21.80
5BTP7	5" round	29.30	25.60	22.90
5BTP11	5" round	27.80	24.40	21.80
5DEP1	5" round	13.65	13.10	12.80
5DEP2	5" round	23.00	20.20	18.00
5DEP7	5" round	24.40	21.30	19.00
5UP1	5" round	12.45	12.00	11.70
5UP2	5" round	21.80	19.10	17.10
5UP7	5" round	22.80	19.90	17.50

TUNG-SOL

POWER PENTODE

Type	1-4	5-18	19-99	50-99
5672	2.27	2.14	1.91	....
6550	4.95	4.50	4.08	3.59
6550MP	10.55	9.43	8.80	7.76

BEAM PENTODE

6AR6	5.75	5.76	5.00	....
6098/6AR6WA	13.45	11.40	10.85	....

PENTODE AMPLIFIER

5678	2.27	2.13	1.91	1.75

BEAM POWER OUTPUT

6L6WGB	5.75	5.46	4.89	....

HYDROGEN THYRATRON

1258	31.80	28.89	26.71	....

VOLTAGE REGULATOR

5651WA	3.75	3.40	3.05	2.69
5998	12.95	11.00	10.30	9.05
0D3W	6.30	....	....	....

DETECTOR

6H6WGT	8.20	6.89	6.55	....

VHF-UHF TRIODE

2C51	3.65	3.21	2.91	2.57
5676	3.05	2.85	....	....

XENON SHIELDED GRID THYRATRON

5643	6.37	5.93	5.28	....

TWIN POWER TRIODE

6528	21.55	20.18	18.40	....
633A	19.00	18.55	17.32	....
6080WA	10.50	9.27	7.87	....

DUAL TRIODE AMPLIFIER

6SC7GTX	3.25	2.73	2.60	....
6SN7WGTA	4.90	4.50	3.90	....
6SU7GTY	4.90	4.50	3.90	....

FULL WAVE RECTIFIER

1Z2	6.40	5.51	5.14	4.56
5R4WGA	8.85	7.43	7.06	....
5R4WGB	13.00	12.15	10.79	9.30
26RZ5W	3.00	2.52	2.27	....

PENTA-LABS

BEAM POWER PENTODE TUBE

Type	1-4	5-18	19-49	50-99
PL8295/172	135.00	....	....	....

PENTODE TRANSMITTING TUBE

PL175A	50.00	46.75	41.50	....

POWER TRIODE

PL6569	37.50	35.06	31.13	....

COSSAR

CATHODE RAY TUBES

Type	1-4	5-18	19-49	50-99
1CP1	See 1CP31	....	....	....
1CP31	20.50	....	....	....

RAYTHEON

PENTODE AMPLIFIER

Type	1-4	5-18	19-49	50-99
1AD4	2.80	2.50	2.24	....
1AE4	4.00	....	....	....
6A55	3.95	3.44	3.24	....
6A56	3.43	2.97	2.77	2.45
512AX	2.77	2.64	2.48	....
526AX	4.59	4.38	4.10	....
533AX	2.94	2.80	2.63	....
534AX	3.01	2.87	2.79	....
5639	5.22	4.54	4.23	3.73
5654/6AK5W	4.35	3.78	3.55	3.09
5879	1.79	1.66	1.53	1.39
CK5702	4.20	3.92	3.60	....
CK5702WA	6.48	5.76	4.98	....
CK5702WB	9.55	8.46	7.05	....
CK5784WA	9.13	8.15	7.79	7.62
CK6485	2.05	1.93	1.77	....

POWER PENTODE

Type	1-4	5-18	19-49	50-99
CK6550	4.95	4.32	3.60	....
6AN5WA	10.80	9.64	9.07	—

PENTODE TRANSMITTING

6397	8.30	7.90	7.00	....

SHARP CUT-OFF PENTODE

Type	1-4	5-18	19-49	50-99
CK6265	4.10	3.53	3.29	2.92

BEAM PENTODE

6AR6	5.75	5.62	5.06	....

BEAM POWER OUTPUT

Type	1-4	5-18	19-49	50-99
1AG4	3.05	2.69	2.40	....
1AG5	2.05	1.85	2.53	....

BEAM POWER TRANSMITTING

Type	1-4	5-18	19-49	50-99
5763	2.53	2.19	2.04	1.81
807	3.00	2.71	2.53	2.10
2E26	3.85	3.18	2.85	....

TRIODE AMPLIFIER

Type	1-4	5-18	19-49	50-99
6533	13.25	12.30	10.30	....
65N7WGT	2.34	2.09	1.97	....

HI-MU TRIODE

Type	1-4	5-18	19-49	50-99
CK5842	7.48	7.11	6.46	....

VHF-UHF TRIODES

Type	1-4	5-18	19-49	50-99
CK5675	16.05	14.00	13.49	11.49
CK5703WA	7.07	6.38	5.54	....
CK5876	14.95	13.98	12.40	10.66
CK6111WA	8.72	....	....	....
6135	2.40	2.05	1.91	1.69
6CHW	8.30	7.40	6.95	....

DUAL TRIODES

6829	6.10	5.26	4.91	4.34

LOW NOISE AMPLIFIER

Type	1-4	5-18	19-49	50-99
CK6247	11.20	10.47	9.30	....

MICROWAVE OSCILLATOR

RK5976	68.00	66.00	61.00	....

ELECTROMETERS

CK5886	5.00	4.72	2.24	....
CK5889	14.50	13.60	12.50	....

FULL WAVE RECTIFIER

6X4W	1.60	1.52	1.36	....
6X5WGT	1.51	1.35	1.27	....

½ WAVE RECTIFIER

CK6174	3.80	3.58	3.15	....
CK5517	3.80	3.58	3.15	....

HIGH VOLTAGE RECTIFIER

CK5785	5.85	5.47	4.86	....

RECEIVING TUBE

6AH6WA	7.65	6.78	5.82	....

HEPTODE MIXER

2G21	7.39	7.02	6.28	....
2G22	7.39	7.02	6.28	....
2K25	36.90	35.46	33.66	....

GAS DIODE

Type	1-4	5-18	19-49	50-99
5651	1.78	1.55	1.44	1.27
5651WA	3.75	3.40	3.05	2.69

INDUSTRIAL & SPECIAL PURPOSE TUBES & ACCESSORIES

RAYTHEON (Cont.)

PULSING OR SWITCHING TUBE

Type	1-4	5-18	19-49	50-99
5643	6.37	5.82	5.18	....

GEIGER MUELLER

CK1020	11.86	11.29	9.96	....
CK1021	11.86	11.29	9.96	....
CK1026	4.34	4.12	3.88	....
CK1049	5.85	5.50	4.91	....

VOLTAGE AMPLIFIER

Type	1-4	5-18	19-49	50-99
CK5783	4.20	3.91	3.50	....
CK5783W19	7.07	6.30	6.05	5.90
CK6419	4.75	4.46	4.00	....
CK6021	3.81	3.55	3.26	2.87

DETECTOR

CK5829WA	7.48	6.68	6.32	6.22

D.C. AMPLIFIER

Type	1-4	5-18	19-49	50-99
CK5755	8.05	7.55	6.75	....

GAS THYRATRON

Type	1-4	5-18	19-49	50-99
5727/2D21W	2.90	2.47	2.31	2.04

R.F. AMPLIFIER

CK5678	2.27	2.18	2.00	....

VHF OSCILLATOR

CK5676	3.05	2.88	2.53	....
CK5703	2.65	2.52	2.24	....
RK5721	150.00	140.00	....	....
CK6029	5.00	4.70	4.20	....

POWER AMPLIFIER

Type	1-4	5-18	19-49	50-99
CK5672	2.27	2.14	1.91	....
CK6088	2.75	2.54	2.30	....
CK6418	3.05	2.87	2.53	....

VOLTAGE REGULATORS

Type	1-4	5-18	19-49	50-99
6627/OB2WA	4.20	3.96	3.58	....
CK5787	5.00	4.64	4.20	....
CK5829WA	7.48	6.68	6.32	6.22
CK6437	8.30	7.74	6.94	....
CK6438	8.30	7.74	....	....
OA2WA	3.32	3.01	2.70	2.37

DUMONT

CATHODE RAY TUBES AND PHOTO-MULTIPLIERS

Type	1-4	5-18	19-49	50-99
6291	55.00	....	....	....
6292	55.00	....	....	....
6362	125.00	....	....	....
6363	115.00	....	....	....
6364	150.00	....	....	....
6365	60.00	....	....	....
6467	55.00	....	....	....

ELECTROSTATIC CATHODE RAY TUBES

3WP1	24.70	....	....	....
3WP2	27.60	....	....	....

Type	1-4	5-18	19-49	50-99
5ABP1A	36.70	....	....	....
5ADP1	28.30	....	....	....
5ADP7	38.50	....	....	....
5AQP1	37.00	....	....	....
5AQP1A	40.00	....	....	....
5AQP2A	40.75	....	....	....
5AQP7	40.00	....	....	....
5BGP2/T51	75.00	....	....	....
5BHP2/T54	92.50	....	....	....
5BP1A	23.30	....	....	....
5CP1A	21.45	....	....	....
5LP1A	40.00	....	....	....

GAS TRIODE

6Q5G	6.00	....	....	....

VICTOREEN

CORONA DISCHARGE

Type	1-4	5-18	19-49	50-99
5841	6.50	....	....	....

COUNTER TUBE—BETA/GAMMA

1B85	8.50	....	....	....

ELECTROMETER TETRODE

5800	21.00	....	....	....

PHOTO MULTIPLIER

VX55	16.00	....	....	....

EIMAC PRODUCTS

PREFORMED CONTACT FINGER STOCK (AVAILABLE IN 3' LENGTHS ONLY)

Stk. No.	Type	Width	NET	Stk. No.	Type	Width	NET
28F977	CF-100	17/32"	5.77	28F836	CF-600*	2 1/4"	9.23
28F834	CF-200*	13/16"	6.70	28F837	CF-700	17/32"	6.23
28F978	CF-300	31/32"	6.23	28F838	CF-800	23/32"	6.23
28F835	CF-400*	1 17/32"	8.30	28F839	CF-900	31/64"	5.77
28F979	CF-500	1 3/8"	6.70				

*Double sided

HEAT DISSIPATING CONNECTORS

Size indicates conductor diameter.

Stk. No.	Type	Size	NET	Stk. No.	Type	Size	NET
28F980	HR-1	.055	1.10	28F983	HR-6	.370	1.20
28F981	HR-2	.065	1.20	29F002	HR-7	.130	1.65
28F982	HR-3	.075	1.20	29F003	HR-8	.578	1.65
29F000	HR-4	.105	1.20	29F004	HR-9	.572	2.80
29F001	HR-5	.130	1.20	29F005	HR-10	.514	1.65

CHIMNEYS FOR AIR SYSTEM SOCKETS

Stk. No.	Type	NET	Stk. No.	Type	NET
38F997	SK-406 FOR 4-400A-4-250A 4-125A-4006	8.50	38F250	SK-760 FOR 4CN15A-4CX300A	10.00
38F998	SK-506 FOR 4-100A-4006	15.00	38F991	SK-806 FOR 4CX1000A	8.50
38F999	SK-606 FOR 4X150A/4006 4X150A&D 4X250B 4X250F-4CX250B	.75	38F259	SK-906 FOR 4X500A	11.50

VACUUM SWITCHES AND COILS

Stk. No.	Type	NET	Stk. No.	Type	NET
38F261	VS-2	28.50	38F263	24V coil	10.25
38F262	12V coil	10.25			

AIR SYSTEM SOCKETS

Stk. No.	Type	NET	Stk. No.	Type	NET
38F992	SK-300, FOR 40X5000A	105.00	38F248	SK-710 FOR 4CX300A	21.50
38F993	SK-400, FOR 4-400A	17.50	38F249	SK-740, FOR 4CN15A 4CX300A	10.00
38F994	SK-500, FOR 4-1000A-4001	20.00	38F251	SK-770, FOR 4CN-15A, 4CX300A Screen pin grounded	10.00
38F995	SK-600, FOR 4X250F- 4X150A/400 4X150D-4X250B 4CX250B- 4W300B	11.50	38F990	SK-800A, FOR CX1000A	56.00
38F996	SK-610, FOR 4X150D- 4X150A/4011 4CX250B-4X250B 4X250F-4W300B	12.00	38F252	SK-810, FOR 4CX1000A	56.00
38F247	SK-700 4CX300A	21.50	38F253	SK900, FOR 4X500A	68.50

BUD RADIO

HEAT DISSIPATING CONNECTORS

Size indicates conductor diameter.

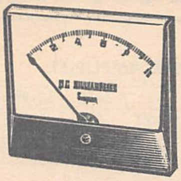
Stk. No.	Type	Size	NET	Stk. No.	Type	Size	NET
28F990	TC-488*	.052''	.68	28F946	TC-487	.062''	.68
28F991	TC-489*	.072''	.68	28F947	TC-1924	.125''	.72
28F992	TC-1923	.110''	.75	28F948	TC-1925	.125''	.74
28F993	TC-1920	.375''	.68	28F949	TC-1926	.810''	1.05
28F994	TC-1921	.570''	.80				

*For Wire Leads

DUMONT CATHODE-RAY TUBE & MULTIPLIER PHOTOTUBE ACCESSORIES

Stock No.	Jedec Number	Use Socket Dumont No.	NET
38F264	B12-37 B14-38	34001610 A, B, or F	1.60
38F265	B7-51 B12-43	34003960 (exposed tabs)	1.30
38F266	E9-37	34003170S	.40
38F267	J1-22	36000500 (no lead)	.75
38F268	J1-25	51005611 (no lead)—straight shank	.15
38F269		P/N35001750 Socket Mtg. Ring	.90
38F270		P/N37007171 Base Clamp for Multiplier Phototubes	2.75
38F271		P/N37002262 Base Clamp for Multiplier Phototubes	1.75
38F272		243-1 Shield	4.95
38F273		243-3 Shield	7.20
38F274		243-4 Shield	8.70
38F275		243-5 Shield	16.05
38F276		243-8 Shield	26.40
38F277		243-9 Shield	33.00
38F278		243-49 Shield	22.75
38F279	3400	3051 Socket	3.50
38F280	3400	3061 Collar Base	3.50

Simpson PANEL METERS



SIMPSON "WIDE-VUE" PANEL INSTRUMENTS

All DC Wide-Vue meters listed below have the Simpson self-shielded core type movement (calibration not affected by stray magnetic fields), except 0-25, 0-50 DC Microammeters which have the Simpson external magnet type movement. When external magnet meters will be used on steel panels, state the panel thickness and add $1.65 to the price for recalibration. DC Ammeters are self-contained for ranges up to and including 50 amps. Higher range DC Ammeters can be supplied with external shunts and include 6' leads. (For external shunt listing see page 00.) All meters are accurate ±2% of FS. The model 1227 and the model 1257 mount in 2.17" dia. hole. Models 1329, 1349, and 1359 mount in 2.75" dia. holes. Have a one-piece wrap-around, break resistant molded cover. Average shipping wt., 1 lb.

DC VOLTMETERS

Range Volts	Approx. Resis.	Model 1227 2½"	1-9	10-24	25-49	50 up	Model 1327 3½"	1-9	10-24	25-49	50-up	Model 1329 4½"	1-9	10-24	25-49	50-up
0-5	1000 Ohms per Volt	55F1143	13.80	12.42	11.73	11.04	55F1146	14.25	12.83	12.11	11.40	55F1166	15.75	14.18	13.39	12.60
0-8		....	....	....	....	....	55F1147	14.25	12.83	12.11	11.40	55F1167	15.75	14.18	13.39	12.60
0-10		55F1500	13.80	12.42	11.73	11.04	55F1550	14.25	12.83	12.11	11.40	55F1600	15.75	14.18	13.39	12.60
0-15		55F1501	13.80	12.42	11.73	11.04	55F1551	14.25	12.83	12.11	11.40	55F1601	15.75	14.18	13.39	12.60
0-25		55F1502	13.80	12.42	11.73	11.04	55F1552	14.25	12.83	12.11	11.40	55F1602	15.75	14.18	13.39	12.60
0-30		55F1503	13.80	12.42	11.73	11.04	55F1553	14.25	12.83	12.11	11.40	55F1603	15.75	14.18	13.39	12.60
0-50		55F1504	13.80	12.42	11.73	11.04	55F1554	14.25	12.83	12.11	11.40	55F1604	15.75	14.18	13.39	12.60
0-100		55F1505	13.80	12.42	11.73	11.04	55F1555	14.25	12.83	12.11	11.40	55F1605	15.75	14.18	13.39	12.60
0-150		55F1506	13.80	12.42	11.73	11.04	55F1556	14.25	12.83	12.11	11.40	55F1606	15.75	14.18	13.39	12.60
0-200		....	....	....	....	....	55F1148	14.25	12.83	12.11	11.40	55F1168	15.75	14.18	13.39	12.60
0-250		....	....	....	....	....	55F1149	14.25	12.83	12.11	11.40	55F1169	15.75	14.18	13.39	12.60
0-300		55F1507	13.80	12.42	11.73	11.04	55F1557	14.25	12.83	12.11	11.40	55F1607	15.75	14.18	13.39	12.60
0-500*		55F1508	14.25	12.83	12.11	11.40	55F1558	15.00	13.50	12.75	12.00	55F1608	16.20	14.58	13.77	12.96
0-750*		55F1144	17.55	15.80	14.92	14.04	55F1164	15.00	13.50	12.75	12.00	55F1170	16.20	14.58	13.77	12.96
0-1000*		55F1145	17.85	16.07	15.17	14.28	55F1165	18.60	16.74	15.81	14.88	55F1171	19.80	17.82	16.83	15.83

*2000 Ohms per Volt.

DC AMMETERS *Supplied Less Shunt

Range Amps.	Ohms	Model 1227 2½"	1-9	10-24	25-49	50-up	Model 1327 3½"	1-9	10-24	25-49	50-up	Model 1329 4½"	1-9	10-24	25-49	50-up
0-1	.050	55F1172	13.05	11.75	11.09	10.44	55F1559	13.65	12.29	11.60	10.92	55F1609	15.00	13.50	12.75	12.00
0-1.5	.033	55F1173	13.05	11.75	11.09	10.44	55F1181	13.65	12.29	11.60	10.92	55F1191	15.00	13.50	12.75	12.00
0-2	.025	55F1174	13.05	11.75	11.09	10.44	55F1560	13.65	12.29	11.60	10.92	55F1610	15.00	13.50	12.75	12.00
0-3	.0166	55F1175	13.05	11.75	11.09	10.44	55F1561	13.65	12.29	11.60	10.92	55F1611	15.00	13.50	12.75	12.00
0-5	.010	55F1512	13.05	11.75	11.09	10.44	55F1562	13.65	12.29	11.60	10.92	55F1612	15.00	13.50	12.75	12.00
0-10	.005	55F1513	13.05	11.75	11.09	10.44	55F1563	13.65	12.29	11.60	10.92	55F1613	15.00	13.50	12.75	12.00
0-15	.0033	55F1176	13.05	11.75	11.09	10.44	55F1564	13.65	12.29	11.60	10.92	55F1614	15.00	13.50	12.75	12.00
0-25	.0025	55F1177	13.05	11.75	11.09	10.44	55F1565	13.65	12.29	11.60	10.92	55F1615	15.00	13.50	12.75	12.00
0-30	.0017	....	....	....	....	....	55F1182	13.65	12.29	11.60	10.92	55F1192	15.00	13.50	12.75	12.00
0-50	.001	55F1178	13.05	11.75	11.09	10.44	55F1566	13.65	12.29	11.60	10.92	55F1616	15.00	13.50	12.75	12.00
0-100*	10.0	55F1179	13.05	11.75	11.09	10.44	55F1183	13.65	12.29	11.60	10.92	55F1193	15.00	13.50	12.75	12.00
0-150*	10.0	55F1180	13.05	11.75	11.09	10.44	55F1184	13.65	12.29	11.60	10.92	55F1194	15.00	13.50	12.75	12.00
0-200*	10.0	....	....	....	....	....	55F1185	13.65	12.29	11.60	10.92	55F1195	15.00	13.50	12.75	12.00
0-300*	10.0	....	....	....	....	....	55F1186	13.65	12.29	11.60	10.92	55F1196	15.00	13.50	12.75	12.00
0-500*	10.0	....	....	....	....	....	55F1187	13.65	12.29	11.60	10.92	55F1197	15.00	13.50	12.75	12.00
15-0-15	.0033	....	....	....	....	....	55F1188	14.55	13.10	12.37	11.64	....	....	....	....	....
30-0-30	.0017	....	....	....	....	....	55F1189	14.55	13.10	12.37	11.64	....	....	....	....	....
50-0-50	.001	....	....	....	....	....	55F1190	14.55	13.10	12.37	11.64	....	....	....	....	....

DC MILLIAMMETERS

Range Ma.	Approx. Resis.	Model 1227 2½"	1-9	10-24	25-49	50-up	Model 1327 3½"	1-9	10-24	25-49	50-up	Model 1329 4½"	1-9	10-24	25-49	50-up
0-1	46 ohms	55F1517	12.90	11.61	10.97	10.32	55F1567	13.50	12.15	11.48	10.80	55F1617	14.25	12.83	12.11	11.40
0-3	46 ohms	55F1198	12.90	11.61	10.97	10.32	55F2501	13.50	12.15	11.48	10.80	55F2506	14.25	12.83	12.11	11.40
0-5	23 ohms	55F1518	12.90	11.61	10.97	10.32	55F1568	13.50	12.15	11.48	10.80	55F1618	14.25	12.83	12.11	11.40
0-10	2.2 ohms	55F1519	12.90	11.61	10.97	10.32	55F1569	13.50	12.15	11.48	10.80	55F1619	14.25	12.83	12.11	11.40
0-15	2.2 ohms	55F1199	12.90	11.61	10.97	10.32	55F2502	13.50	12.15	11.48	10.80	55F2507	14.25	12.83	12.11	11.40
0-20	2.2 ohms	....	....	....	....	....	55F2503	13.50	12.15	11.48	10.80	55F2508	14.25	12.83	12.11	11.40
0-25	6.0 ohms	55F1520	13.20	11.88	11.22	10.56	55F1570	13.80	12.42	11.73	11.04	55F1620	15.00	13.50	12.75	12.00
0-50	3.0 ohms	55F1521	13.20	11.88	11.22	10.56	55F1571	13.80	12.42	11.73	11.04	55F1621	15.00	13.50	12.75	12.00
0-100	1.5 ohms	55F1522	13.20	11.88	11.22	10.56	55F1572	13.80	12.42	11.73	11.04	55F1622	15.00	13.50	12.75	12.00
0-150	1.0 ohms	55F1523	13.20	11.88	11.22	10.56	55F1573	13.80	12.42	11.73	11.04	55F1623	15.00	13.50	12.75	12.00
0-200	.75 ohm	55F1524	13.20	11.88	11.22	10.56	55F1574	13.80	12.42	11.73	11.04	55F1624	15.00	13.50	12.75	12.00
0-250	.60 ohm	55F2500	13.20	11.88	11.22	10.56	55F1575	13.80	12.42	11.73	11.04	55F1625	15.00	13.50	12.75	12.00
0-300	.50 ohm	55F1526	13.20	11.88	11.22	10.56	55F1576	13.80	12.42	11.73	11.04	55F1626	15.00	13.50	12.75	12.00
0-500	.30 ohm	55F1527	13.20	11.88	11.22	10.56	55F1577	13.80	12.42	11.73	11.04	55F1627	15.00	13.50	12.75	12.00
0-750	.20 ohm	....	....	....	....	....	55F2504	13.80	12.42	11.73	11.04	55F2509	15.00	13.50	12.75	12.00
0-1000	.05 ohm	....	....	....	....	....	55F2505	13.80	12.42	11.73	11.04	55F2510	15.00	13.50	12.75	12.00

DC MICROAMMETERS (†Has External Magnet Type Movement)

Range Microamp.	Approx. Resis.	Model 1227 2½"	1-9	10-24	25-49	50-up	Model 1327 3½"	1-9	10-24	25-49	50-up	Model 1329 4½"	1-9	10-24	25-49	50-up
0-15	4500	....	....	....	....	....	55F2511	22.50	20.25	19.13	18.00	55F2515	24.60	22.14	20.91	19.68
0-25†	2200	55F1528	19.20	17.28	16.32	15.36	55F1578	20.10	18.09	17.09	16.08	55F1628	22.20	19.98	18.87	17.76
0-50†	2000	55F1529	16.65	14.99	14.15	13.32	55F1579	17.10	15.39	14.54	13.68	55F1629	18.45	16.61	15.68	14.76
0-100	2000	55F1530	15.00	13.50	12.75	12.00	55F1580	15.60	14.04	13.26	12.48	55F1630	17.40	15.66	14.79	13.92
0-200	1000	55F1531	13.65	12.29	11.60	10.92	55F1581	14.25	12.83	12.11	11.40	55F1631	15.75	14.18	13.39	12.60
0-500	200	55F1532	13.50	12.15	11.48	10.80	55F1582	13.95	12.56	11.8[illegible]	11.16	55F1632	15.15	13.64	12.88	12.12
25-0-25	2000	....	....	....	....	....	55F2512	17.25	15.53	14.66	13.[illegible]	55F2516	18.60	16.74	15.81	14.88
50-0-50	2000	55F1533	15.15	13.64	12.88	12.12	55F1583	15.75	14.18	13.39	12.60	55F1633	17.55	15.80	14.92	14.04
100-0-100	1000	....	....	....	....	....	55F2513	14.40	12.96	12.24	11.52	55F2517	15.90	14.31	13.52	12.72
500-0-500	46	....	....	....	....	....	55F2514	13.65	12.29	11.60	10.92	55F2518	14.40	12.96	12.24	11.52

SIMPSON "WIDE-VUE" PANEL INSTRUMENTS

The AC instruments are accurate to ±2%, except the Rectifier type, which are accurate to ±3%. The model 1227 and the model 1257 mount in 2.17" dia. hole. Models 1327, 1347 and 1357 mount in 2.73" dia. hole. Models 1329, 1349, and 1359 mount in 2.75" dia. holes. Has a one-piece, wrap-around, break-resistant cover, molded from clear methyl methacrylate of highest quality. Avg. Shipping Weight, 1 lb.

AC VOLTMETERS—RECTIFIER TYPE External Magnet Meter Movements

Range Volts	Approx. Res./Ohms	Model 1347C 3½"	1-9	10-24	25-49	50-up	Model 1349C 4½"	1-9	10-24	25-49	50-up
0-5	1000 Ohms per Volt	55F2602	18.30	16.47	15.56	14.64	55F2607	20.10	18.09	17.09	16.08
0-10		55F2603	18.30	16.47	15.56	14.64	55F2608	20.10	18.09	17.09	16.08
0-15		55F2604	18.30	16.47	15.56	14.64	55F2609	20.10	18.09	17.09	16.08
0-50		55F2605	18.30	16.47	15.56	14.64	55F2610	20.10	18.09	17.09	16.08
0-150		55F1543	18.30	16.47	15.56	14.64	55F1593	20.10	18.09	17.09	16.08
0-300	1000/volt	55F2606	18.30	16.47	15.56	14.64	55F2611	20.10	18.09	17.09	16.08
0-150	2000/volt	55F1544	19.05	17.15	16.19	15.24	55F1594	20.85	18.77	17.72	16.68

SIMPSON "WIDE-VUE" AC PANEL INSTRUMENTS (Cont.)

AC VOLTMETERS

Range Volts	Approx. Resis.	Model 1257 2½"	1-9	10-24	25-49	50-up	Model 1357 3½"	1-9	10-24	25-49	50-up	Model 1359 4½"	1-9	10-24	25-49	50-up
0-5	33	....	....	....	....	....	55F2524	12.60	11.34	10.71	10.08	55F2531	14.40	12.96	12.24	11.52
0-10	133	55F1534	12.30	11.07	10.46	9.84	55F1584	12.60	11.34	10.71	10.08	55F1634	14.40	12.96	12.24	11.52
0-15	300	....	....	....	....	....	55F2525	12.60	11.34	10.71	10.08	55F2532	14.40	12.96	12.24	11.52
0-25	833	55F2522	12.45	11.21	10.58	9.96	55F2526	13.05	11.75	11.09	10.44	55F2533	14.40	12.96	12.24	11.52
0-50	3,333	55F2523	12.45	11.21	10.58	9.96	55F2527	13.05	11.75	11.09	10.44	55F2534	14.40	12.96	12.24	11.52
0-100	16,666	....	....	....	....	....	55F2528	13.65	12.29	11.60	10.92	55F2535	14.40	12.96	12.24	11.52
0-150	25,000	55F1535	13.05	11.75	11.09	10.44	55F1585	13.95	12.56	11.86	11.16	55F1635	15.00	13.50	12.75	12.00
0-250	41,166	....	....	....	....	....	55F2529	13.95	12.56	11.86	11.16	55F2536	15.00	13.50	12.75	12.00
0-300	50,000	55F1536	13.05	11.75	11.09	10.44	55F1586	13.95	12.56	11.86	11.16	55F1636	15.00	13.50	12.75	12.00
0-500	83,333	....	....	....	....	....	55F2530	17.85	16.07	15.17	14.28	55F2537	19.05	17.15	16.19	15.24

Iron Vane Type Movements **AC AMMETERS** Over 50 amps. require external current transformers—see page 52.

Range Amps	Approx. Resis.	Model 1257 2½"	1-9	10-24	25-49	50-up	Model 1357 3½"	1-9	10-24	25-49	50-up	Model 1359 4½"	1-9	10-24	25-49	50-up
0-1	.287	55F2580	11.70	10.53	9.95	9.36	55F1537	14.55	13.10	12.37	11.64	55F1587	14.55	13.10	12.37	11.64
0-1.5	.185	55F2581	11.70	10.53	9.95	9.36	55F2588	12.45	11.21	10.58	9.96	55F2595	14.55	13.10	12.37	11.64
0-2	.115	....	....	....	....	....	55F2589	12.45	11.21	10.58	9.96	55F2596	14.55	13.10	12.37	11.64
0-3	.027	....	....	....	....	....	55F2590	12.45	11.21	10.58	9.96	55F2597	14.55	13.10	12.37	11.64
0-5	.012	55F2582	11.70	10.53	9.95	9.36	55F1538	12.45	11.21	10.58	9.96	55F1588	14.55	13.10	12.37	11.64
0-10	.003	55F2583	11.70	10.53	9.95	9.36	55F1539	12.45	11.21	10.58	9.96	55F1589	14.55	13.10	12.37	11.64
0-15	.0022	55F2584	11.70	10.53	9.95	9.36	55F1540					55F1590	14.55	13.10	12.37	11.64
0-25	.003	55F2585	12.30	11.07	10.46	9.84	55F1541	12.90	11.61	10.97	10.32	55F1591	15.00	13.50	12.75	12.00
0-50	.0006	55F2586	12.30	11.07	10.46	9.84	55F1542	12.90	11.61	10.97	10.32	55F1592	15.00	13.50	12.75	12.00
0-100	.012	....	....	....	....	....	55F2591	12.45	11.21	10.58	9.96	55F2598	14.55	13.10	12.37	11.64
0-150	.012	....	....	....	....	....	55F2592	12.45	11.21	10.58	9.96	55F2599	14.55	13.10	12.37	11.64
0-200	.012	....	....	....	....	....	55F2593	12.45	11.21	10.58	9.96	55F2600	14.55	13.10	12.37	11.64
0-300	.012	55F2587	11.70	10.53	9.95	9.36	55F2594	12.45	11.21	10.58	9.96	55F2601	14.55	13.10	12.37	11.64

AC MILLIAMMETERS

Range Ma.	Approx. Resis.	Model 1257	1-9	10-24	25-49	50-up	Model 1357	1-9	10-24	25-49	50-up	Model 1359	1-9	10-24	25-49	50-up
0-50	80	....	....	....	....	....	55F2539	12.45	11.21	10.58	9.96	55F2543	14.55	13.10	12.37	11.64
0-100	20	....	....	....	....	....	55F2540	12.45	11.21	10.58	9.96	55F2544	14.55	13.10	12.37	11.64
0-250	5	....	....	....	....	....	55F2541	12.45	11.21	10.58	9.96	55F2545	14.55	13.10	12.37	11.64
0-500	.9	55F2538	11.70	10.53	9.95	9.36	55F2542	12.45	11.21	10.58	9.96	55F2546	14.55	13.10	12.37	11.64

RF AMMETERS

Range Amps.	Approx. Resis.	Model 1337	1-9	10-24	25-49	50-up	Model 1339	1-9	10-24	25-49	50-up
0-1	.343	55F2612	15.90	14.31	13.52	12.72	55F2620	18.15	16.34	15.43	14.52
0-1.5	.200	55F2613					55F2621				
0-2	.120	55F2614					55F2622				
0-2.5	.10	55F2615					55F2623				
0-3	.08	55F2616					55F2624				
0-5	.045	55F2617					55F2625				
0-8	.031	55F2618					55F2626				
0-10	.023	55F2619					55F2627				

● *NEW* SIMPSON 1½" WIDE-VUE PANEL INSTRUMENTS

Simpson's popular Wide-Vue styling is now available in 1½" size in DC, AC rectifier type, and as VU Models 1212C and 1214C have the Simpson self-shielded core type movement (calibrations not affected by stray magnetic fields). 1212C accurate to 2% of full scale. 1214C accurate to 3% of full scale at 25°C. Both models mount in 1.50" dia. holes. Size: 1.76"x1.76"x1.32". Core magnet meter movement. Scale length is 1.5" at 90° Arc (38.1 mm). Standard calibration either magnetic or non-magnetic panel with lance type pointer. Base constructed of molded black phenolic plastic with high temperature cover. All models are supplied complete with the necessary mounting and terminal hardware. 8-32 studs are used for terminals. Average shipping weight, 3½ oz.

MODEL 1212C 1½" DC VOLTMETERS

Range Volts	Div.	Ohms	Stock No.	1-9	10-24	25-49	50-up
0-5	50	1000	55F436	12.75	11.12	10.84	10.20
0-10	50	1000	55F437	12.75	11.12	10.84	10.20
0-15	75	1000	55F438	12.75	11.12	10.84	10.20
0-25	50	1000	55F439	12.75	11.12	10.84	10.20
0-30	60	1000	55F440	12.75	11.12	10.84	10.20
0-50	50	1000	55F441	12.75	11.12	10.84	10.20
0-100	50	1000	55F442	12.75	11.12	10.84	10.20
0-150	75	1000	55F443	12.75	11.12	10.84	10.20
0-300	60	2000	55F444	12.75	11.12	10.84	10.20
0-500	50	2000	55F445	16.05	14.45	13.64	12.84

MODEL 1212C 1½" DC MILIVOLTMETERS

0-50	50	10	55F446	12.75	11.12	10.84	10.20

MODEL 1212C 1½" DC MILLIVOLTMETERS

0-1	50	.050	55F447	12.75	11.12	10.84	10.20
0-2	40	.025	55F448				
0-3	60	.0166	55F449				
0-5	50	.010	55F466				
0-10	50	.005	55F467				

MODEL 1214C 1½" AC VOLTMETERS—RECTIFIER TYPE

0-5	50	1000	55F468	17.70	15.93	15.05	14.16
0-10	50	1000	55F469	17.70	15.93	15.05	14.16
0-150	75	1000	55F470	17.70	15.93	15.05	14.16
0-300	60	2000	55F471	18.30	16.47	15.56	14.64

VU METERS

Range	Model 1214C 1½"	1-9	10-24	25-49	50-up
A-Scale	55F472	19.80	17.82	16.83	15.84

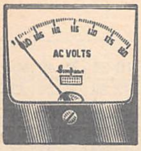
MODEL 1212C 1½" DC MICROAMMETERS

Range µ	Div.	Ohms	Stock No.	1-9	10-24	25-49	50-up
0-50	50	2000	55F473	16.20	14.58	13.77	12.96
0-100	50	2000	55F474	14.40	12.96	12.24	11.52
0-200	40	1000	55F475	13.05	11.75	11.09	10.44
0-500	50	200	55F476	12.80	11.52	10.88	10.24
25-0-25	....	2000	55F477	16.35	14.72	13.90	13.08
50-0-50	....	2000	55F478	14.55	13.10	12.37	11.64
100-0-100	....	1000	55F479	13.20	11.88	11.22	10.56
500-0-500	....	46	55F480	12.45	11.21	10.58	9.96

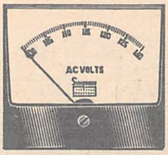
MODEL 1212C 1½" DC MILLIAMMETERS

0-1	50	46	55F481	12.30	11.07	10.45	9.84
0-5	50	23	55F482	12.30	11.07	10.45	9.84
0-10	50	2.2	55F483	12.30	11.07	10.45	9.84
0-15	75	2.2	55F484	12.30	11.07	10.45	9.84
0-25	50	6.0	55F485	12.75	11.12	10.84	10.20
0-50	50	3.0	55F486	12.75	11.12	10.84	10.20
0-100	50	1.5	55F487	12.75	11.12	10.84	10.20
0-150	75	1.0	55F488	12.75	11.12	10.84	10.20
0-200	40	.75	55F489	12.75	11.12	10.84	10.20
0-250	50	.60	55F490	12.75	11.12	10.84	10.20
0-300	60	.50	55F491	12.75	11.12	10.84	10.20
0-500	50	.30	55F492	12.90	11.61	10.97	10.32

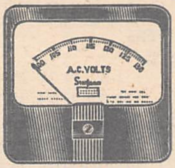
SEGMENTAL VOLTMETERS (Expanded Scale 100-130 AC Volts)



Model 1347C



Model 1349C



Model 49C

Units used primarily in monitoring AC line voltages. Operating Frequency: 20-2000 cps. Accuracy: ±5% of center scale value at 25° C, and 60 cps sine wave. Sen.: 160 to 100 ohms/volt end scale values. Decreases as voltage increases.

MODEL 1347C—3½" RECT. WIDE VIEW

Stock No.	Scale Length	1-9	10-24	25-49	50-up
55F1006	3.14"	40.80	36.74	34.70	32.66

MODEL 1349C—4½" RECT. WIDE VIEW

Stock No.	Scale Length	1-9	10-24	25-49	50-up
55F2659	3.93"	40.95	36.86	34.81	32.76

MODEL 49C—4½" RECT. STANDARD

Stock No.	Scale Length	1-9	10-24	25.49	50-up
55F1007	3.5"	40.50	36.45	34.42	32.40

VOLUME LEVEL INDICATORS—DECIBEL METERS

Zero power level—6MW. 500 ohm line. Range—general purpose 5000 ohms.

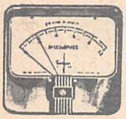
Stk. No.	Description	1-9	10-24	25-49	50-up
55F2519	2½" Model 1247	18.35	16.52	15.60	14.68
55F1545	3½" Model 1347	19.60	17.64	16.66	15.68
55F1595	4½" Model 1349	20.25	18.23	17.21	16.20

VU METERS

(Have external magnet type movement). Reference level—1mw 600 ohm line.

	3½" Model 1347					4½" Model 1349				
Rnge-Scale	Stk. No.	1-9	10-24	25-49	50-up	Stk. No.	1-9	10-24	25-49	50-up
A	55F1546	22.50	20.25	19.13	18.00	55F2520	23.70	21.33	20.15	18.96
B	55F1547	22.50	20.25	19.13	18.00	55F2521	23.70	21.33	20.15	18.96

MODEL 29XA 4¼" FRONT ADJUSTABLE METER RELAYS



Current and voltage actuated meter relays with D'Arsonval type movements. Externally adjustable setting contacts, non-locking for circuits with external locking provision or light duty non-locking use. Platinum Alloy contacts are rated 15 VDC 15 ma max. Contact adjustment 95° of 100° scale arc within 5° of each other. Size 2.75 Dia., body; 97"L. behind panel face.

Stk. No.	Range	Description	Ohms	1-9	10-24	25-49	50-up
55F2653	0-50	DC Microammeter	5200	44.10	39.69	37.48	35.28
55F2654	0-100	DC Microammeter	1800	42.15	37.93	35.82	33.72
55F2655	0-200	DC Microammeter	1000	39.60	35.64	34.66	32.68
55F2656	0-500	DC Microammeter	280	39.00	35.10	33.55	31.20
55F2657	0-1	DC Milliammeter	140	38.10	34.29	33.38	30.48
55F2658	0-50	DC Millivoltmeter	10	38.25	34.42	32.51	30.60

DC GALVANOMETERS

Top-quality Simpson panel meters meet exacting requirements. Models 1227C and 1327C Wide-Vue type with 2.5" and 3.04" scale length respectively and non-magnetic core-type movement. Model 27 has Iron-Vane type external magnet movement. When ordering for use on steel panel, specify panel thickness and add $1.65 for recalibration. Model 27 scale length 1.8". All are accurate within 2% F.S., have rect. faces. Scales read 50-0-50. Average shipping weight, 1 lb.

Range Microamps	Res. Ohms	Model 27 3½"	1-9	10-24	25-49	50-up	Model 1227C 2½"	1-9	10-24	25-49	50-up	Model 1327C 3½"	1-9	10-24	25-49	50-up
500-0-500	46	55F090	13.20	11.88	11.22	10.56	55F1548	12.90	11.61	10.97	10.32	55F1598	13.65	12.29	11.60	10.92
75-0-75	2000	55F091	15.00	13.50	12.75	12.00	55F1549	13.95	12.56	11.86	11.16	55F1599	15.15	13.64	12.88	12.12

VOLUME LEVEL METERS

AMPERES
Simpson

Highly damped. Meter reads —20 to +3 VU. Int. imp., 3900 ohms across 600 ohm lines. Zero reference, 1MW. Bakelite case. Stocked with A scale. B scale available on spec. order. 1 lb.

Stk. No.	Model	Scale	Overall Depth	Overall Width	1-9	10-24	25-49	50-up
55F160	47	2.6"	3.24"	3.00"	22.35	20.12	19.00	17.88
55F161	142	3½"	2.28"	4.25"	24.15	21.74	20.53	19.32
55F162	142, as above, illum. face				26.70	24.03	22.70	21.36

EXTERNAL SWITCHBOARD SHUNTS FOR D.C. AMMETERS

Adjusted for a 50 millivolt drop for use where external shunts are required. Price includes 6" leads.

Stk. No.	Mfr's. No.	Amps	1-9	10-24	25-49	50 up
55F264	6704	10	6.90	6.21	5.87	5.52
55F265	6705	15				
55F266	6709	50				
55F267	6711	75				
55F268	6500	100				
55F2569	6713*	100	6.90	6.21	5.87	5.52
55F2570	6715*	200	6.90	6.21	5.87	5.52
55F2571	6503	150	7.35	6.62	6.25	5.88
55F2572	6504	200	7.35	6.62	6.25	5.88
55F2573	6506	300	7.35	6.62	6.25	5.88

*Portable shunts with bakelite bases.

DC MILLIVOLTMETERS

DC MILLIVOLTS
Simpson

Famous Simpson Wide-Vue rect. meters with self-shielded core magnet movement. Non-magnetic for use on steel panels. All read 0-50 mv. within 2% full scale, have approx. 10 ohms int. res. Avg. sh. wt., 1 lb. Depth: 1227C, 2.22"; 1327C, 2.38"; 1329C, 2.4".

Stock No.	Model No.	Mtg. Ctrs.	Mtg. Studs	1-9	10-24	25-49	50-up
55F1637	1227C	.94"	4-36	13.05	11.75	11.09	10.44
55F1638	1327C	1.12"	4-36	13.65	12.29	11.60	10.92
55F1639	1329C	2.00"	6-32	15.00	13.50	12.75	12.00

CURRENT TRANSFORMERS FOR AC AMMETERS

These current transformers are of the inserted one turn primary type for use with switchboard and panel ammeters where external transformers are required.

Stk. No.	Mfr's. No.	Pri.	Sec.	1-9	10-24	25-49	50 up
55F269	1293	50 amps	5	17.40	15.66	14.79	13.92
55F270	1297	100 amps	5	10.20	9.18	8.67	8.16
55F2575	1306	75 amps	5	12.60	11.34	10.71	10.08
55F2576	1298	150 amps	5	9.00	8.10	7.65	7.20
55F2577	1299	200 amps	5	9.00	8.10	7.65	7.20
55F2578	1300	300 amps	5	10.20	9.18	8.69	8.16
55F2579	1301	500 amps	5	12.60	11.34	10.71	10.08

Newark's diversified stocks of quality industrial electronic products enable us to fill your needs with speed, reliability, and economy. Our field personnel and sales force are the industry's most experienced. They know electronics equipment and are aware of your problems. Whatever your needs — whatever your location — call on a NEWARK representative — he's at your disposal at all times.

PANEL METERS

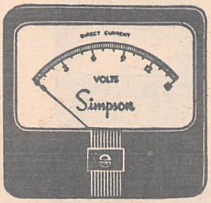
Simpson

LABORATORY QUALITY "JEWELED BEARING" PANEL METERS

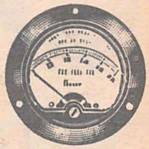
Accurate jeweled bearings and polished pivots. DC types have D'Arsonval movements, accuracy ±2% of full scale. Recessed zero adjustment. Extra long scale length of 100° arc. With spade type pointers. Instruments normally calibrated for non-magnetic panels. Available in steel panel calibration on special order. *Indicates types available with Lucite illuminated dials at an additional charge of $1.95. Models 27 and 29 mount in 2¾" holes; models 127, 25, and 125 fit in 2³⁄₁₆" holes. DC meters, 1000 volts or higher. Mounting template and hardware furnished with all meters. Average shipping weight, 1 lb.

MILLIAMPERES
Simpson

Model 27, 127



Model 29



Model 25, 125

DC MILLIVOLTS

Range	Model 27 3½" Rect.	Model 25 3½" Rnd.	1-9	10-24	25-49	50 up	Model 29 4½" Rect.	1-9	10-24	25-49	50 up
0-50	55F1000	55F1002	12.90	11.61	10.97	10.32	55F1004	14.40	12.96	12.24	11.52
0-100	55F1001	55F1003					55F1005				

DC VOLTMETERS

Range	Model 27 3½" Rect.	Model 25 3½" Rnd.	1-9	10-24	25-49	50 up	Model 29 4½" Rect.	1-9	10-24	25-49	50 up
0-3	55F079	55F1111	13.50	12.15	11.48	10.80	55F144	14.85	13.37	12.62	11.88
0-5	55F039	55F1010					55F167				
0-8	55F040	55F1011					55F250				
0-10	55F041*	55F1012*					55F168				
0-15	55F042	55F1013					55F251				
0-25	55F038	55F1014					55F169				
0-30	55F080	55F1112					55F145				
0-50	55F043*	55F1015*					55F183				
0-100	55F044	55F1016					55F252				
0-150	55F045*	55F1017*					55F170				
0-250	55F046	55F1018					55F253				
0-300	55F047*	55F1019*					55F184				
0-500	55F050*	55F1020*	14.10	12.69	11.99	11.28	55F185	15.30	13.77	13.01	12.24
0-750	55F081	55F1113	14.10	12.69	11.99	11.28	55F146	15.30	13.77	13.01	12.24
0-1000	55F051*	55F1021*	17.55	15.80	14.92	14.04	55F186	19.20	17.28	16.32	15.36
0-1500	55F052	55F1022	17.85	16.07	15.17	14.28	55F187	19.50	17.55	16.58	15.60
0-2000	55F053*	55F1023*	18.15	16.34	15.43	14.52	55F254	19.80	17.82	16.83	15.84
0-2500	55F037	55F1024	18.45	16.61	15.68	14.76	55F200	20.10	18.09	17.09	16.08
0-3000	55F054*	55F1025*	18.75	16.88	15.94	15.00	55F255	20.40	18.36	17.34	16.32
0-5000	55F055*	55F1026*	19.35	17.42	16.45	15.48	55F201	21.00	18.90	17.85	16.80

DC MICROAMMETERS

Range	Model 27 3½" Rect.	Model 25 3½" Rnd.	1-9	10-24	25-49	50-up	Model 29 4½" Rect.	1-9	10-24	25-49	50-up	Model 127 2½" Rect.	Model 125 2½" Rnd.	1-9	10-24	25-49	50-up
0-15	55F082	55F1029	22.95	20.66	19.51	18.36	55F147	25.05	22.55	21.29	20.04						
0-25	55F070	55F1030	20.55	18.50	17.47	16.44	55F175	22.65	20.39	19.25	18.12	55F2552	55F2547	19.65	17.69	16.70	15.72
0-50	55F071	55F1031	17.55	15.80	14.92	14.04	55F176	18.90	17.01	16.07	15.12	55F2553	55F2548	17.10	15.39	14.54	13.68
0-100	55F072	55F1032	15.45	13.91	13.13	12.36	55F177	17.25	15.53	14.66	13.80	55F2554	55F2549	14.85	13.37	12.62	11.88
0-200	55F073	55F1033	13.95	12.56	11.86	11.16	55F178	15.45	13.91	13.13	12.36	55F2555	55F2550	13.20	11.88	11.22	10.56
0-500	55F074	55F1034	13.35	12.02	11.35	10.68	55F179	14.85	13.37	12.62	11.88	55F2556	55F2551	12.75	11.48	10.84	10.20
25-0-25	55F075	55F1035	17.70	15.93	15.05	14.16	55F163	19.05	17.15	16.19	15.24						
50-0-50	55F076	55F1036	15.60	14.04	13.26	12.48	55F164	17.40	15.66	14.79	13.92						
100-0-100	55F077	55F1037	14.10	12.69	11.99	11.28	55F165	15.75	14.18	13.39	12.60						
500-0-500	55F078	55F1038	12.90	11.61	10.97	10.32	55F166	14.10	12.69	11.99	11.28						

DC MILLIAMMETERS

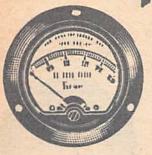
Range	Model 27 3½" Rect.	Model 25 3½" Rnd.	1-9	10-24	25-49	50-up	Model 29 4½" Rect.	1-9	10-24	25-49	50-up	Model 127 2½" Rect.	Model 125 2½" Rnd.	1-9	10-24	25-49	50-up
0-1	55F000*	55F1040*	12.75	11.48	10.84	10.20	55F171	13.95	12.56	11.86	11.16	55F020	55F2557	12.15	10.94	10.33	9.72
0-5	55F001	55F1041	12.75	11.48	10.84	10.20	55F257	13.95	12.56	11.86	11.16	55F021	55F2558	12.15	10.94	10.33	9.72
0-10	55F002*	55F1042*	12.75	11.48	10.84	10.20	55F204	13.95	12.56	11.86	11.16	55F022	55F2559	12.15	10.94	10.33	9.72
0-25	55F003*	55F1043*	13.35	12.02	11.35	10.68	55F188	14.85	13.37	12.62	11.88	55F023	55F2560	12.90	11.61	10.97	10.32
0-50	55F004*	55F1044*	13.35	12.02	11.35	10.68	55F258	14.85	13.37	12.62	11.88	55F024	55F2561	12.90	11.61	10.97	10.32
0-100	55F005*	55F1045*	13.35	12.02	11.35	10.68	55F172	14.85	13.37	12.62	11.88	55F025	55F2562	12.90	11.61	10.97	10.32
0-150	55F006*	55F1046*	13.35	12.02	11.35	10.68	55F173	14.85	13.37	12.62	11.88	55F026	55F2563	12.90	11.61	10.97	10.32
0-200	55F007*	55F1047*	13.35	12.02	11.35	10.68	55F174	14.85	13.37	12.62	11.88	55F027	55F2564	12.90	11.61	10.97	10.32
0-250	55F008	55F1048	13.35	12.02	11.35	10.68	55F206	14.85	13.37	12.62	11.88	55F028	55F2565	12.90	11.61	10.97	10.32
0-300	55F009*	55F1049*	13.35	12.02	11.35	10.68	55F207	14.85	13.37	12.62	11.88	55F029	55F2566	12.90	11.61	10.97	10.32
0-500	55F010*	55F1050*	13.35	12.02	11.35	10.68	55F189	14.85	13.37	12.62	11.88	55F030	55F2567	12.90	11.61	10.97	10.32
0-1000	55F011	55F1051	13.35	12.02	11.35	10.68	55F208	14.85	13.37	12.62	11.88	55F031	55F2568	12.90	11.61	10.97	10.32

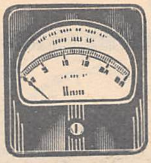
DC AMMETERS († Less Shunt)

Range	Model 27 3½" Rect.	Model 25 3½" Rnd.	1-9	10-24	25-49	50-up	Model 29 4½" Rect.	1-9	10-24	25-49	50-up
0-1	55F060	55F1055	13.35	12.02	11.35	10.68	55F209	14.70	13.23	12.50	11.76
0-1.5	55F083	55F1115					55F238				
0-2	55F061	55F1056					55F259				
0-3	55F062	55F1057					55F260				
0-5	55F063	55F1058					55F210				
0-10	55F064	55F1059					55F211				
0-15	55F084	55F1116					55F239				
0-25	55F065	55F1060					55F261				
0-50	55F068	55F1061					55F212				
0-75†	55F085	55F1117	12.90	11.61	10.97	10.32	55F240	14.40	12.96	12.24	11.52
0-100†	55F086	55F1118	12.90	11.61	10.97	10.32	55F241	14.40	12.96	12.24	11.52
30-0-30	55F066	55F1062	13.65	12.29	11.60	10.92	55F262	15.15	13.64	12.88	12.12
50-0-50	55F067	55F1063	13.65	12.29	11.60	10.92	55F263	15.15	13.64	12.88	12.12

Simpson

PANEL METERS


Model 55


Model 57, 59

LABORATORY QUALITY AC INSTRUMENTS

Manufactured to high standards of accuracy to insure long life and excellent performance. All instruments listed below are of the iron vane type except those marked as rectifier type. The iron vane instruments are accurate to ±2% of full scale. Rectifier type to ±3% of full scale. * Indicates types available with Lucite illuminated dials at an additional charge of $1.95 on special orders. External resistors furnished with meters having a range of 500 volts or higher. All models mount in 2¾" holes. Other dimensions same as DC counterparts. Mounting template and hardware furnished with all meters. Average shipping weight, 1 lb.

AC VOLTMETERS

Range	Model 57 3½'' Rect.	Model 55 3½'' Rnd.	1-9	10-24	25-49	50-up	Model 59 4½'' Rect.	1-9	10-24	25-49	50-up
0-1.5	55F271	55F1640	12.45	11.21	10.58	9.96	55F281	14.10	12.69	11.99	11.28
0-3	55F110	55F1065					....	....	....	....	....
0-5	55F109	55F1066					55F215	14.10	12.69	11.99	11.28
0-10	55F111*	55F1067*					55F190	14.10	12.69	11.99	11.28
0-15	55F112*	55F1068					55F180	14.10	12.69	11.99	11.28
0-25	55F272	55F1641	12.75	11.48	10.84	10.20	....	....	....	....	....
0-50	55F113	55F1069	12.75	11.48	10.84	10.20	55F216	14.10	12.69	11.99	11.28
0-100	55F114	55F1070	13.80	12.42	11.73	11.04	55F217	14.70	13.23	12.50	11.76
0-150	55F115*	55F1071*	13.65	12.29	11.60	10.92	55F181	14.85	13.37	12.62	11.88
0-250	55F273	55F1642	13.65	12.29	11.60	10.92	....	....	....	....	....
0-300	55F116	55F1072	13.65	12.29	11.60	10.92	55F191	14.85	13.37	12.62	11.88
0-500	55F117	55F1073	17.70	15.93	15.05	14.16	55F192	18.30	16.47	15.56	14.64
0-750	55F274	55F1643	19.35	17.42	16.45	15.48	....	....	....	....	....
0-1000	55F275	55F1644	20.85	18.77	11.99	11.28	....	....	....	....	....

AC MILLIAMMETERS

Range	Model 57 3½'' Rect.	Model 55 3½'' Rnd.	1-9	10-24	25-49	50-up	Model 59 4½'' Rect.	1-9	10-24	25-49	50-up
0-25	55F104	55F1075	12.15	10.94	10.33	9.72	55F198	14.40	12.96	12.24	11.52
0-50	55F100	55F1076					55F218				
0-100	55F101	55F1077					55F213				
0-250	55F102	55F1078					55F214				
0-500	55F103	55F1079					55F199				

AC AMMETERS

†Require External Transformer—Ordered Separately—SEE Page 00

Range	Model 57 3½'' Rect.	Model 55 3½'' Rnd.	1-9	10-24	25-49	50-up	Model 59 4½'' Rect.	1-9	10-24	25-49	50-up
0-1	55F130	55F1085	12.15	10.94	10.33	9.72	55F182	14.40	12.96	12.24	11.52
0-1.5	....	....	....	....	....	....	55F193				
0-2	55F131	55F1086	12.15	10.94	10.33	9.72	55F256				
0-3	55F132	55F1087					55F194				
0-5	55F133	55F1088					55F195				
0-10	55F134	55F1089					55F196				
0-15	55F156	55F1119					55F282				
0-25	55F135	55F1090	12.45	11.21	10.58	9.96	55F197	15.00	13.50	12.75	12.00
0-50	55F136	55F1091	12.45	11.21	10.58	9.96	55F219	15.00	13.50	12.75	12.00
0-75†	55F157	55F1120	12.15	10.94	10.33	9.72	55F283	14.40	12.96	12.24	11.52
0-100†	55F158	55F1121	12.15	10.94	10.33	9.72	55F284	14.40	12.96	12.24	11.52

**1000 Ohms per volt. †2000 Ohms per volt.

AC VOLTMETERS—RECTIFIER TYPE

Range	Model 47 3½'' Rect.	Model 45 3½'' Rnd.	1-9	10-24	25-49	50 up	Model 49 4½'' Rect.	1-9	10-24	25-49	50 up
0-10**	55F138	55F1095	18.15	16.34	15.43	14.52	55F285	19.95	17.96	16.96	15.96
0-150**	55F139	55F1096	18.15	16.34	15.43	14.52	55F286	19.95	17.96	16.96	15.96
0-10†	55F140	55F1097	18.75	16.88	15.94	15.00	55F287	20.55	18.50	17.47	16.44
0-150†	55F141	55F1098	18.75	16.88	15.94	15.00	55F288	20.55	18.50	17.47	16.44

AC MILLIAMMETERS—RECTIFIER TYPE

Range	Model 47 3½'' Rect.	Model 45 3½'' Rnd.	1-9	10-24	25-49	50 up	Model 49 4½'' Rect.	1-9	10-24	25-49	50 up
0-1	55F289	55F1102	18.00	16.20	15.30	14.40	55F291	19.50	17.55	16.58	15.60
0-2	55F142	55F1100					55F292				
0-5	55F143	55F1101					55F293				

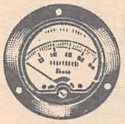
2½" AC VOLTMETER—MODEL 157

Instrument has a rectangular case. Width is 2⅜" and its height is 2⅜", Body diameter is 2³⁄₁₆". Scale length is 1⅞". Meter is housed in a sturdy and durable bakelite case.

Stock No.	Range	Resis.	1-9	10-24	25-49	50 up
55F122	0-15	300	11.70	10.53	9.95	9.36
55F125	0-150	25,000	12.90	11.61	10.97	10.32

WATTMETERS

Self contained, dynamometer-type. Measure DC and single-phase AC power to 250 cps. Normally calibrated for non-magnetic panels. Available in magnetic panel calibration. All meters mount in 2¾" holes. Supplied with mounting hardware. Shpg. wt. 1 lb.


Model 75

Model 77

MODEL 75—3½" ROUND METER

Scale length: 2.3 inches. Accuracy 2% of full scale.

Stk. No.	Range	Max. Amps	Max. Volts	1-9	10-24	25-49	50 up
55F220	0-75	1.0	150	27.60	24.84	23.46	22.08
55F221	0-150	2.0	150				
55F222	0-300	4.0	150				
55F223	0-750	10.0	150				
55F1135	0-600	4.0	300	30.00	27.00	25.50	24.00
55F224	0-1500	10.0	300				
55F1136	0-3000	20.0	300				

MODEL 77—3½" RECTANGULAR METER

Scale length: 2.3 inches. Accuracy 2% of full scale.

Stk. No.	Range	Max. Amps	Max. Volts	1-9	10-24	25-49	50 up
55F226	0-75	1.0	150	27.60	24.84	23.46	22.08
55F227	0-150	2.0	150				
55F228	0-300	4.0	150				
55F229	0-750	10.0	150				
55F1137	0-600	4.0	300	30.00	27.00	25.50	24.00
55F230	0-1500	10.0	300				
55F1138	0-3000	20.0	300				

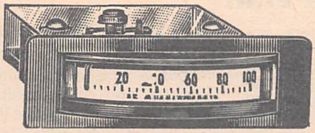
MODEL 79—4½" RECTANGULAR METER

Scale length: 3.5 inches. Accuracy 2% of full scale.

55F232	0-75	1.0	150	33.90	30.51	28.82	27.12
55F233	0-150	2.0	150				
55F234	0-300	4.0	150				
55F235	0-750	10.0	150				
55F1139	0-600	4.0	300	36.45	32.81	30.98	29.16
55F236	0-1500	10.0	300				
55F1140	0-3000	20.0	300				

SIMPSON

EDGEWISE PANEL METERS



Core magnet meter movement. Self shielded. Needs ½ the panel area of usual 2½″ meter; yet comparable scale length (1⅞). Complete mtg. hardware. DC acc.: 2% of full scale. Standard scale—Black numbers on a white background. Dustproof, molded lucite case. Accurate comparative readings by mounting meters side by side. Saves space—makes every square inch count. Quick, simple mounting. Meters are supplied complete with mounting hardware. Terminals: Solder (ammeters, stud). Approx. shpg. wt., 5 ozs.

MODEL 1522

Range DC	Stock No.	1-9	10-24	25-49	50-up
0-10 volts	55F2628	15.00	13.50	12.75	12.00
0-15 volts	55F2629				
0-50 volts	55F1122				
0-150 volts	55F1123				
0-300 volts	55F2630				
0-500 volts	55F1124	15.15	13.64	12.88	12.12
0-5 amperes	55F1125	15.75	14.18	13.39	12.60
0-10 amperes	55F1134				
0-15 amperes	55F2631				
0-25 amperes	55F2632				

MODEL 1522—CONTINUED

Range DC	Stock No.	1-9	10-24	25-49	50-up
0-50 amperes	55F2633	15.75	14.18	13.39	12.60
0-1 milliamperes	55F1126	14.85	13.37	12.62	11.88
0-5 milliamperes	55F2634				
0-10 milliamperes	55F1127				
0-25 milliamperes	55F2635	15.45	13.91	13.13	12.36
0-50 milliamperes	55F2636				
0-100 milliamperes	55F1128				
0-150 milliamperes	55F2637				
0-200 milliamperes	55F2638				
0-250 milliamperes	55F2639				
0-300 milliamperes	55F2640				
0-500 milliamperes	55F1129				
0-25 microamperes	55F2641	22.20	19.98	18.87	17.76
0-50 microamperes	55F1130	19.50	17.55	16.58	15.60
0-100 microamperes	55F1131	17.40	15.66	14.79	13.92
0-200 microamperes	55F2642	15.75	14.18	13.39	12.60
0-500 microamperes	55F2643	15.30	13.77	13.01	12.24

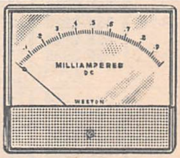
MODEL 1542

Range DC	Stock No.	1-9	10-24	25-49	50-up
VU Meter "A" scale	55F1132	24.75	22.28	21.04	19.80
VU Meter "B" scale	55F1133	24.75	22.28	21.04	19.80
0-150 AC volts Rect. 1000 Ohms per volt	55F1141	19.20	17.28	16.32	15.36
0-300 AC volts Rect. 1000 Ohms per volt	55F1142	19.20	17.28	16.32	15.36

WESTON

PANEL INSTRUMENTS 1900 SERIES

The 1900 Series is an integrated line of a-c and d-c panel instruments, providing selected sizes, scales, and ranges. All instruments are provided with zero correctors. Clear plastic fronts. Specially treated Alnico 5 magnets provide long term reliability and stability. Spring back jewels with locking nuts for fine adjustment. 3½″ size has scale length (100° arc) of 2.7″. 4½″ size has scale length (100° arc) of 3.9″. Lance pointers on all models except 1946, which has knife-edge pointer. 2% accuracy with plain scales and lance pointers or 1% accuracy with mirrored scales and knife edge-pointers.



D-C (CORMAG) MICROAMMETERS

Range ua	Model 1931 3½″	1-9	10-24	25-49	Model 1941 4½″	1-9	10-24	25-49
50	55F2900	18.20	16.38	14.56	55F2921	19.15	17.24	16.32
100	55F2901	17.05	15.35	13.64	55F2922	17.95	16.16	14.36
200	55F2902	16.30	14.67	13.04	55F2923	17.25	15.53	13.80
500	55F2903	15.35	13.82	12.28	55F2924	16.30	14.67	13.04

D-C (CORMAG) MILLIAMMETERS

Range ma	Model 1931 3½″	1-9	10-24	25-49	Model 1941 4½″	1-9	10-24	25-49
1	55F2904	14.40	12.96	11.52	55F2925	15.35	13.82	12.28
10	55F2905				55F2926			
50	55F2906				55F2927			
100	55F2907				55F2928			
500	55F2908				55F2929			

Ranges of 50ma and up are shunted and have a drop of 100mv.

D-C (CORMAG) AMMETERS

Range amps	Model 1931 3½″	1-9	10-24	25-49	Model 1941 4½″	1-9	10-24	25-49
1	55F2909	14.40	12.96	11.52	55F2930	15.35	13.82	12.28
2	55F2910				55F2931			
5	55F2911				55F2932			
10	55F2912				55F2933			

Approx. MV Drop 50.

D-C (CORMAG) VOLTMETERS

Range volts	Model 1931 3½″	1-9	10-24	25-49	Model 1941 4½″	1-9	10-24	25-49
10	55F2913	15.10	13.59	12.08	55F2934	16.05	14.45	12.84
15	55F2914				55F2935			
30	55F2915				55F2936			
50	55F2916				55F2937			
100	55F2917				55F2938			
150	55F2918				55F2939			
300	55F2919				55F2940			
500	55F2920				55F2941			

1000 Ohms per Volt Nominal Resistance

A-C (IRON VANE) MILLIAMMETERS

Range ma	Model 1934 3½″	1-9	10-24	25-49	Model 1944 4½″	1-9	10-24	25-49
20	55F2946	18.60	16.74	14.88	55F2958	19.55	17.60	15.64
50	55F2947				55F2959			
100	55F2948				55F2960			
500	55F2949				55F2961			

Frequency: 25 to 500 cycles.

A-C (IRON VANE) AMMETTERS

Range amps	Model 1934 3½″	1-9	10-24	25-49	Model 1944 4½″	1-9	10-24	25-49
1	55F2950	18.60	16.74	14.88	55F2962	19.55	17.60	15.64
2	55F2951				55F2963			
5	55F2952				55F2964			
10	55F2953				55F2965			

Frequency: 25 to 500 cycles.

A-C (IRON VANE) VOLTMETERS

Range volts	Model 1934 3½″	1-9	10-24	25-49	Model 1944 4½″	1-9	10-24	25-49
15	55F2954	19.55	17.60	15.64	55F2966	20.45	18.41	16.36
150	55F2955				55F2967			
300	55F2956				55F2968			
500	55F2957				55F2969			

D-C (EXTERNAL MAGNET) MICROAMMETERS

Range ua	Model 1936 3½″	1-9	10-24	25-49	Model 1946 4½″	1-9	10-24	25-49
50	55F2942	26.50	23.85	21.20	55F2943	29.05	26.15	23.24

RECTIFIER TYPE A-C (CORMAG) VOLTMETERS

Range volts	Model 1932 3½″	1-9	10-24	25-49	Model 1942 4½″	1-9	10-24	25-49
150	55F2944	19.75	17.78	15.80	55F2945	20.70	18.63	16.56

1000 Ohms per Volt Nominal Resistance.

● *NEW* WESTON BEZEL PANEL METER MOUNTINGS

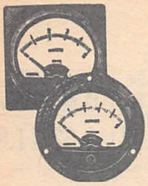
2
4
6
8
1
MILLIAMPERES
D.C.
WESTON

Model 1900 Series. Clear plastic front meters for recess panel mounting. Die-cast metal bezels provide unique picture window effect, only the scale is visable since the meter is mounted behind the panel and the half bezel fits into window. Furnished with dull black painted finish for use on panels up to ⅛″ thick.

Stk. No.	Type No.	Deminsions	1-9	10-24	25-49
55F2898	198470	$3\frac{23}{32}$x$2\frac{5}{32}$″	1.30	1.17	1.04
55F2899	1984880	$4\frac{13}{16}$x$2\frac{3}{4}$″	1.33	1.21	1.08

ALL WESTON METERS ARE AVAILABLE. WRITE FOR COMPLETE INFORMATION. NEWARK HAS WESTON METERS IN A-C, D-C, RECTIFIER, AND THERMO TYPES IN 2½″, 3½″, 4½″, 5½″, AND 7½″ SIZES.

PANEL METERS & TIME METERS



WESTON

● *NEW* PANEL METERS

Weston Types 301, 302 and 304 Panel Meters are in design application. An additional feature is that rated at ±2% accuracy. Available in both 3½" round and 3½" square types, thus providing the ultimate Weston Types 301, 302 and 304 panel meters can be both mounted on non-magnetic and magnetic panels, close to other instruments. Cases are sealed against dust. Spring back jewels are standard. Minimum response time and minimum power consumption are features you can expect from Weston. Scale length: 2½". Terminal length: 19/32". Shipping Weight: 1 lb.

DC VOLTMETERS

Range	Type 301 Round	Type 301 Square	Resis. Ohms	1-9	10-24	25-49
5	55F 2970	55F 3015	1000 ohms per volt	14.20	12.78	11.36
10	55F 2971	55F 3016				
15	55F 2972	55F 3017				
30	55F 2973	55F 3018				
50	55F 2974	55F 3019				
100	55F 2975	55F 3020		14.20	12.78	11.36
150	55F 2976	55F 3021		14.20	12.78	11.36
300	55F 2977	55F 3022		14.65	13.19	11.72
500	55F 2978	55F 3023		15.10	13.59	12.08

DC MICROAMMETERS

Range	Type 301 Round	Type 301 Square	Resis. Ohms	1-9	10-24	25-49
50	55F 2979	55F 3024	4800	19.30	17.37	15.44
100	55F 2980	55F 3025	1230	16.50	14.85	13.20
200	55F 2981	55F 3026	600	14.20	12.78	11.36
500	55F 2982	55F 3027	230	14.20	12.78	11.36
25-0-25	55F 2983	55F 3028	4800	19.30	17.37	15.44
50-0-50	55F 2984	55F 3029	1230	16.50	14.85	13.20
500-0-500	55F 2985	55F 3030	88	13.70	12.33	10.94

AC VOLTMETERS (25-125 CYCLES)

Range	Type 304 Round	Type 304 Square	Resis. Ohms	1-9	10-24	25-49
3	55F 3001	55F 3046	6	17.20	15.48	13.76
5	55F 3002	55F 3047	10			
10	55F 3003	55F 3048	10			
50	55F 3004	55F 3049	45			
100	55F 3005	55F 3050	....	17.20	15.48	13.76
150	55F 3006	55F 3051	130	17.65	15.89	14.12
300	55F 3007	55F 3052	260	19.10	17.19	15.38
500	55F 3008	55F 3053	260	20.45	18.41	16.36

AC VOLTMETERS (RECTIFIER TYPE)

Range	Type 302 Round	Type 302 Square	Resis. Ohms	1-9	10-24	25-49
150	55F 2999	55F 3044	1000/V.	19.75	17.78	15.80

DC AMMETERS

Range	Type 301 Round	Type 301 Square	Resis. Ohms	1-9	10-24	25-49
1	55F 2986	55F 3031	....	13.70	12.33	10.94
5	55F 2987	55F 3032	....	13.70	12.33	10.94
15	55F 2988	55F 3033	....	14.65	13.19	11.72
50	55F 2989	55F 3034	....	14.65	13.19	11.72
50-0-50	55F 2990	55F 3035	....	14.65	13.19	11.72

DC MILLIAMMETERS

Range	Type 301 Round	Type 301 Square	Resis. Ohms	1-9	10-24	25-49
1	55F 2991	55F 3036	88	13.70	12.33	10.94
5	55F 2992	55F 3037	8			
10	55F 2993	55F 3038	2.5			
50	55F 2994	55F 3039	2			
100	55F 2995	55F 3040	1			
150	55F 2996	55F 3041	.66			
200	55F 2997	55F 3042	.5			
300	55F 2998	55F 3043	.33			

AC AMMETERS (25-500 CYCLES)

Range	Type 304 Round	Type 304 Square	Resis. Ohms	1-9	10-24	25-49
1	55F 3009	55F 3054	.125	16.75	15.08	13.40
5	55F 3010	55F 3055	.002			
10	55F 3011	55F 3056	.001			
50	55F 3012	55F 3057	....			

AC MILLIAMMETERS (25-500 CYCLES)

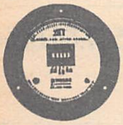
Range	Type 304 Round	Type 304 Square	Resis. Ohms	1-9	10-24	25-49
50	55F 3013	55F 3058	82	16.75	15.08	13.40
500	55F 3014	55F 3059	.65	16.75	15.08	13.40

AC MILLIAMMETER (RECTIFIER TYPE)

Range	Type 302 Round	Type 302 Square	Resis. Ohms	1-9	10-24	25-49
1	55F 3000	55F 3045	470	19.75	17.78	15.80

JBT FREQUENCY AND ELAPSED TIME METERS

FREQUENCY METERS



Each vibrating reed responds to a different frequency. Input frequency is indicated by reed with greatest swing. All operate from 100-130v. with accuracy of ±.3% or better. All have 3½" molded case with MIL-M-6B mounting. Shipping weight 12 oz. each.

Type 31-FX. 5 reeds cover 58-62 cycles.
55F685. NET.. **23.65**

Type 34-FX. 9 reeds cover 56-64 cycles.
55F686. NET.. **27.25**

Type 33-FX. 9 reeds cover 380-420 cps.
55F687. NET.. **34.10**

SEALED TIME METER

Type 33-EHXX. New stable 400-cycle elapsed time meter compact enough to fit in a 3½" flanged case, with all parts enclosed, in sealed construction, glass-to-metal, with separate flange, heavy duty-solder terminals, and flat glass front. Meter tells elapsed time in 1/10 hr. steps to 9999.9 hours. Vacuum-tested . . . meets JAN-1-6 and MIL-M-6B specs. For 110-125v. 400-cycle AC only. 12 oz.
55F693. NET.. **58.00**

TIME METERS

Record elapsed or operating time of electronic equipment. Popular for xmitter tube life, etc. Registers in 1/10 hour steps to 9999.9 hours . . . then resets automatically. Noted for high accuracy where line voltage and temperatures vary widely. 3½" size; black molded case. For 60-cycles. Shpg. wt., 12 oz.

55F691. Type 31-EX. 110-120 v.. **15.95**
55F699. Type 31-EXW. 6 digits, 0-99, 999.9 hours. 60 cy.. 110-125 volts. **NET**.. **16.95**
55F692. Type 31-EX-200. 230v. **NET**.. **17.05**
55F697. Type 31-EHXX. Sealed for 60 cy., 110-125 V AC. **NET**.. **19.75**
55F698. Model 31-ES. 110-125 volts, 60 cycles. As above except with square black molded case, 3"x3". **NET**.. **17.05**

TIME-FREQUENCY

Type 31-FE. Uses a separate exciting coil for the reeds to achieve close control of reed amplitude and frequency. Ideal for use on motor generator set and on electrical equipment where maintenance routine calls for periodic servicing. Tenths shown in red, all others in white on black backgr'nd. 58-62 cps. Time meter reads 0-9999.9 hours. For 100-130v AC. Saves panel space on motor-generator sets. 5 reeds indicate at 4.7w. 3¼" metal case. Shpg. wt., 12 oz.
55F688. NET.. **33.00**

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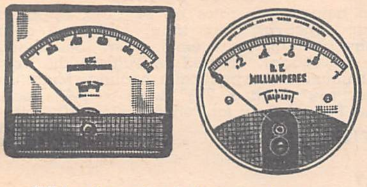
NEWARK saves you time and money by placing your one purchase order at QUANTITY PRICES COMPETITIVE WITH THE MANUFACTURER.

TRIPLETT PANEL METERS

TRIPLETT FULLVIEW PANEL METERS



Wide clear plastic face for better visibility and longer dial scale!

TYPE PL CHARACTERISTICS

These type PL panel meters represent the ultimate in wide-angle visibility and readability! Giant crystal-clear plastic front floods entire meter face with shadowless natural light. Longer, bigger scale than conventional meters; yet size and mounting space are exactly the same. Since the plastic front is virtually unbreakable, scale and movement are completely protected. Standard accuracy of all units is 2%, and all have 1000 ohms per volt movement. Shpg. wt., 1 lb.

PL METER DIMENSIONS

Meter Type	Flange Shape	Flange Size	Body Dia.
327-PL	Square	3⅜x3 1/16"	2¾"
321-PL	Round	3½" dia.	2¾"
331-PL	Round	3½" dia.	2¾"
420-PL	Square	4⅝x4 3/16"	2¾"
430-PL	Square	4⅝x4 3/16"	2¾"

DC VOLTMETERS—FILM TYPE RESISTORS

Stk. No.	Model	Range	Description	1-9	10-24	25-49	50-up
55F1306	327PL	0-25	3" Rect.	12.30	11.07	10.45	9.84
55F877	430PL	0-50	4" Rect.	12.80	11.52	10.88	10.24
55F1307	327PL	0-100	3" Rect.	12.30	11.07	10.45	9.84
55F1308	327PL	0-150	3" Rect.	12.30	11.07	10.45	9.84
55F1314	321PL	0-150	3" Round	12.30	11.07	10.45	9.84

DC AMMETERS

Stk. No.	Model	Range	Description	1-9	10-24	25-49	50-up
55F830	321PL	0-5	3½" Round	12.30	11.07	10.45	9.84
55F945	327PL	0-1	3½" Rec.	11.60	10.44	9.86	9.28
55F854	327PL	0-5	3" Rect.	12.30	11.07	10.45	9.84
55F855	327PL	0-10	3" Rect.	12.30	11.07	10.45	9.84
55F993	321PL	0-25	3" Round	12.30	11.07	10.45	9.84
55F994	321PL	0-50	3" Round	12.30	11.07	10.45	9.84
55F998	420PL	0-15	4" Rect.	13.50	12.05	11.47	10.80

DC MICROAMMETERS

Stk. No.	Model	Range	Description	1-9	10-24	25-49	50-up
55F845	327PL	0-50	3" Rect.	14.90	13.41	12.66	13.52
55F846	327PL	0-100	3" Rect.	12.90	11.61	10.96	11.92
55F847	327PL	0-200	3" Rect.	16.90	14.76	13.99	10.32
55F821	321PL	0-50	3" Round	12.80	11.52	10.20	13.12
55F826	321PL	0-100	3" Round	12.00	10.80	10.88	9.60

DC MILLIAMMETERS

Stk. No.	Model	Range	Description	1-9	10-24	25-49	50-up
55F937	420PL	0-200	3" Round	13.20	11.88	11.22	10.56
55F848	327PL	0-1	3" Rect.	11.60	10.44	9.86	9.28
55F824	321PL	0-1	3" Round	11.60	10.44	9.86	9.28
55F849	327PL	0-50	3" Rect.	12.00	10.80	10.20	9.60
55F850	327PL	0-100	3" Rect.	12.00	10.80	10.20	9.60
55F853	327PL	0-500	3" Rect.	12.00	10.80	10.20	9.60
55F851	327PL	0-200	3" Rect.	12.00	10.80	10.20	9.60
55F852	327PL	0-300	3" Rect.	12.00	10.80	10.20	9.60

AC VOLTMETERS

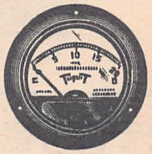
Stk. No.	Model	Range	Description	1-9	10-24	25-49	50-up
55F858	337PL	0-150	3" Rect.	13.10	11.79	11.13	10.48
55F834	331PL	0-150	3" Round	13.10	11.79	11.13	10.48
55F873	430PL	0-150	4" Rect.	13.80	12.42	11.73	11.04

AC AMMETERS

Stk. No.	Model	Range	Description	1-9	10-24	25-49	50-up
55F2079	420PL	0-1	4" Rect.	16.90	15.21	14.36	9.68
55F861	337PL	0-10	3" Rect.	12.10	10.89	10.28	9.68
55F862	337PL	0-25	3" Rect.	12.10	10.89	10.28	9.68
55F864	337PL	0-50	3" Rect.	12.10	10.89	10.28	9.84
55F865	420PL	0-50	4" Rect.	12.30	11.07	10.45	10.24
55F876	430PL	0-10	4" Rect.	12.80	11.52	10.88	10.24

STANDARD SERIES PANEL INSTRUMENTS

Ideal for communications equipment and industry. All feature polished jewel bearings. DC meters are of the D'Arsonval type, with extra-light moving coil, double bridges of all-metal construction, and balanced frame. AC instruments are of the moving vane type, and have a light moving system. Long life under adverse conditions. All meters listed below are accurate within ±2%.



METER DIMENSIONS AND WEIGHTS

Mfr's. Type	Flange Shape	Flange Size	Body Dia.	Body Depth	Scale Length	Shpg. Wt.
327-T	Square	3x3"	2¾"	1"	2.49"	1 lb.
337-S/347-T	Square	3x3"	2¾"	1⅜"	2.22"	1 lb.
321-T	Round	3½ dia.	2¾"	15/16"	2.49"	1 lb.
331-S	Round	3½ dia.	2¾"	15/16"	2.22"	1 lb.
420/430	Square	4⅝x4 3/16"	2¾"	27/32"	4.04"	1 lb.

DC VOLTMETERS (1000 OHMS PER VOLT)

Film type multiplier resistors

Stk. No.	Model	Range	Descrip.	1-9	10-24	25-49	50-up
55F542	327-T	0-25	3" Rect.	12.30	11.07	10.45	9.84
55F544	327-T	0-150	3" Rect.				
55F1201	321-T	0-10	3" Round				
55F1202	321-T	0-25	3" Round				
55F1203	321-T	0-50	3" Round				
55F1205	321-T	0-150	3" Round				
55F1208	321-T	0-300	3" Round				
55F1209	321-T	0-500	3" Round	13.00	11.70	11.05	10.40

DC AMMETERS

Stock No.	Model	Range	Description	1-9	10-24	25-49	50-up
55F580	327-T	0-1	3" Rect.	11.60	10.44	9.86	9.28
55F581	327-T	0-3	3" Rect.				
55F1246	321-T	0-1	3" Round				
55F1496	321-T	0-1.5	3" Round				
55F1247	321-T	0-3	3" Round				
55F1498	321-T	0-15	3" Round				
55F582	327-T	0-5	3" Rect.	12.30	11.07	10.45	9.84
55F583	327-T	0-10	3" Rect.				
55F585	327-T	0-25	3" Rect.				
55F586	327-T	0-50	3" Rect.				
55F1248	321-T	0-5	3" Round				
55F1249	321-T	0-10	3" Round				
55F1251	321-T	0-25	3" Round				
55F1253	321-T	0-50	3" Round				

AC VOLTMETERS

Stock No.	Model	Range	Description	1-9	10-24	25-49	50-up
55F1255	331S	0-10	3" Round	12.10	10.89	10.28	9.68
55F604	337S	0-150	3" Rect.	13.10	11.79	11.13	10.48
55F1258	331S	0-150	3" Round	13.10	11.79	11.13	10.48
55F605	337S	0-300	3" Rect.	14.30	12.87	12.15	11.44
55F1283	331S	0-250	3" Round	13.80	12.42	11.73	10.48

AC AMMETERS

Stock No.	Model	Range	Description	1-9	10-24	25-49	50-up
55F573	337S	0-10	3" Rect.	12.10	10.89	10.28	9.68
55F1269	331S	0-10	3" Round				
55F574	337S	0-25	3" Rect.				
55F1271	331S	0-30	3" Round				

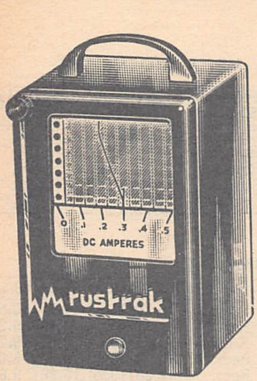
DC MILLIAMMETERS

Stock No.	Model	Range	Description	1-9	10-24	25-49	50-up
55F520	327-T	0-1	3" Rect.	11.60	10.44	9.86	9.28
55F521	327-T	0-5	3" Rect.				
55F522	327-T	0-10	3" Rect.				
55F596	327-T	0-15	3" Rect.				
55F524	327-T	0-50	3" Rect.	12.00	10.80	10.20	9.60
55F525	327-T	0-75	3" Rect.				
55F526	327-T	0-100	3" Rect.				
55F527	327-T	0-150	3" Rect.				
55F528	327-T	0-200	3" Rect.				
55F530	327-T	0-300	3" Rect.				
55F531	327-T	0-500	3" Rect.				
55F1227	321-T	0-1	3" Round	11.60	10.44	9.86	9.28
55F1229	321-T	0-10	3" Round				
55F1230	321-T	0-25	3" Round	12.00	10.80	10.20	9.60
55F1231	321-T	0-50	3" Round				
55F1233	321-T	0-100	3" Round				
55F1234	321-T	0-150	3" Round				
55F1235	321-T	0-200	3" Round				
55F1238	321-T	0-500	3" Round				
55F1240	321-T	0-1000	3" Round				

DC MICROAMMETERS

Stock No.	Model	Range	Description	1-9	10-24	25-49	50-up
55F630	327-T	0-20	3" Rect.	20.00	18.00	17.00	16.00
55F631	327-T	0-50	3" Rect.	16.90	15.61	14.36	13.52
55F632	327-T	0-100	3" Rect.	14.90	13.41	12.66	11.92
55F633	327-T	0-200	3" Rect.	12.90	11.61	10.96	10.32
55F634	327-T	0-500	3" Rect.	12.20	10.91	10.37	9.76
55F1241	321-T	0-20	3" Round	20.00	18.00	17.00	16.00
55F1242	321-T	0-50	3" Round	16.90	15.21	14.36	13.52
55F1243	321-T	0-100	3" Round	14.90	13.41	12.66	11.92
55F1244	321-T	0-200	3" Round	12.90	11.61	10.96	10.32
55F1245	321-T	0-500	3" Round	12.20	10.98	10.37	9.76
55F2095	420	50-0-50	4" Rect.	16.10	14.49	13.68	12.88

rustrak CHART RECORDERS—ACCESSORIES



● *NEW* MINIATURE FOUR CHANNEL EVENT RECORDER

• EASY TO INSTALL **• EASY TO OPERATE**

Model 92. Designed to monitor from one to four ON-OFF operations on Rustrak pressure sensitive paper. Recording is a clear, black line clearly indicating the number, duration, relation, and chronological time of these operations. Dry writing process is unaffected by high humidity or temperature. May be used as either a portable or rack mounted. RETMA standard panels are available for mounting. Drive motor operates on 120 Volts, 60 cycle. Pen actuator operates on 24 VDC. Supplied with 1 inch/hr. gear train. Additional gear trains available on special order. (See listing on this page). Housed in rugged die cast aluminum with vinyl paint coating. Miniaturized: 5⅝" high x 3⅝" wide x 4⅛" deep. Less Pwr. Supply for Pen Actuator. Wt. 4 lbs.

62F1223. NET.......................................**88.00**

POWER SUPPLY

Model 921. With 24 volt, DC at 400 ma to supply actuator input; 120 volt, 50/60 cycle power, one for each channel.

62F1325. NET.......................................**10.50**

BASIC CURRENT AND VOLTAGE RECORDERS

• 31 Days Recording **• Smudge Proof** **• Permanent**

Miniaturized, automatic chart recorder. Distortion free, indicates time accurately due to precise synchronous motor which operates at 2 rpm, 115v, 60 cycles. Special pressure-sensitive paper makes marking process dry and smudgeproof; abolishes messy ink, typewriter ribbons, and troublesome heated styli. Accurate within 2% of full scale, 01-MA galvanometer has an input resistance of 100 ohms. Response time is 1 second, max., overshoot is 2% of full scale, maximum. Supplied with 1 in./hr. gear train. Additional gear trains for other ranges plus other combinations of motor voltages, motor frequencies, galvanometer input resistance, chart speeds, and accessories including access window and tear-off feature are available on special order. Recorders use a 63 ft. of chart paper and are available in four standard styles. The recorder is 5⅝" high, 3⅝" wide, and 4⅛" deep. Shpg. wt., including paper roll, is 4 lbs.

Supplied with 1 in./hr. gear train. Other gear trains available on special order. See listing on this page.

Stock No.	Description	NET
62F1326	50 Microammeter DC Portable Type 6400 ohms	**98.50**
62F1283	100 Microammeter DC Portable Type 4600 ohms	**91.50**
62F1284	200 Microammeter DC Portable Type 2200 ohms	**89.50**
62F1250	Basic 1 MA DC Portable Type 100 ohms	**79.50**
62F1251	Basic 1 MA DC Panel Type 100 ohms	**79.50**
62F1252	Basic 1 MA DC Panel Type w/Access. Window. 100 ohms	**84.50**
62F1253	.5 - 0 - .5 MA DC Zero Center Portable	**84.50**
62F1267	500 MA DC Portable Type	**84.00**
62F1268	1 AMP DC Portable Type	**84.00**
62F1269	100 MILLIVOLT DC Portable	**81.00**
62F1270	1 VOLT DC Portable Type	**84.00**
62F1275	10 VOLT DC Portable Type	**84.00**
62F1254	0 - 150 VOLT AC Portable Rectifier Type	**89.95**
62F1327	10 MVDC Portable Type	**94.50**
62F1328	25 MVDC Portable Type	**94.50**

Model 133

ACCESSORIES FOR RUSTRAK RECORDER

To be used to increase the versatility of the basic 1 MA DC Chart Recorder.

98 DC Amplifier. Chopper stabilized, vacuum tube type completely isolates recorder from signal source, for use with 1 MA or 100 uA recorder. Overall amplifier sensitivity is increased ten times when used with 100 uA recorder. Maximum sensitivity: 1 millivolt full scale (with 100 uA recorder). Full scale sensitivity is: 10 Mv, 100 Mv, 1 volt, 10 volts, 100 volts, or 1, 19, 100 uA. Input resistance: 10 Megohms. Accuracy and linearity: 0.1%.

62F1239. NET.......................................**109.50**

TEMPERATURE RECORDER

Model 133. Self-contained temp. recording instrument produces a high resolution, accurate recording. All have self checking feature. Four style probes, with identical characteristics are available. Accuracy is better than ±.2°F per 10°F of temp. span. Chart paper capacity is 31 days at 1" per hr. Chart speeds: Standard 1" per hr., 1/16" per hr. to 450" per hr. on order. 105-130 V. 60 cycles. 3⅝"Wx5⅝"Hx6⅜"D. Weight: 3½ lbs.

Stk. No.	Model No.	Temp. Span	NET
62F1216	133	90-115°F	**170.00**
62F1217	133	30-100°F	**170.00**
62F1218	133	0-150°F	**170.00**

Probes (for above)

All probes are equipped with 10' cords and connecting plug.

Stk. No.	Model No	Type	NET
62F1219	1331	Oral-Rectal	**13.50**
62F1220	1332	Utility	**21.00**
62F1221	1333	Extended disc	**25.50**
62F1222	1334	Flexible lead disc	**21.00**

MINIATURE AC DUAL VOLTAGE-CURRENT RECORDER

0-5 AMP. 100-140 Volts

The Rustrak dual channel recorder contains two individual galvanometers; one recording voltage, the other recording current, with both being recorded simultaneously on the chart paper. Accuracy 2%. Size: 3⅝" wide x 5⅝" high x 4⅛" deep. Wt. 3 lbs.

62F1247. 0-5AMP, 100-140 Volt... **149.50**

EXTRA GEAR TRAIN UNITS

Can be interchanged in field in seconds

Stk. No.	Description	NET
62F1320	¼ inch per hour	**5.00 Ea.**
62F1321	½ inch per hour	
62F1322	1 inch per hour	
62F1256	2 inches per hour	
62F1257	3 inches per hour	
62F1258	6 inches per hour	
62F1259	10 inches per hour	
62F1323	12 inches per hour	
62F1260	15 inches per hour	
62F1261	30 inches per hour	
62F1324	60 inches per hour	

CHART PAPER—63 Foot Roll

Stk. No.	Description	NET
62F1262	Style A for scales divisible by 2	**2.25 Ea.**
62F1263	Style B for scales divisible by 3	
62F1289	Style C for restricted ranges	
62F1244	Style D dual channel 20 divisions each channel	
62F1329	Style E with 1' per hour time markings	

"AC" RESTRICTED RANGE, HIGH RESOLUTION TYPES

62F1277. 70-135VAC, with line cord.
NET.......................................**94.95**

62F1278. 70-135VAC and 140-270VAC.
NET.......................................**98.95**

RACK MOUNTING PANEL, HARDWARE

62F1280. Panel for mounting 2 recorders.
NET.......................................**15.00**
62F1287. For mounting 3 recorders.
NET.......................................**15.00**
62F1288. For mounting 4 recorders.
NET.......................................**15.00**
62F1282. *Set of separate panel-mounting hardware. **NET**.......................................**1.50**
62F1281. *Set of separate portable hardware. **NET**.......................................**1.50**

*Recorders are delivered either panel mounted or portable. These items permit both uses.

TEMPERATURE RECORDER

The temperature recorder operates on the pyrometer principle utilizing the output from a thermocouple junction through a temperature compensator to cause deflection of a very sensitive galvanometer. Supplied with a six foot fully shielded thermocouple which is connected directly to the rear terminals of the recorder. Each Rustrak temperature recorder is a complete system and needs no additional accessories. Accuracy: 2%. Supplied with 1 in./hr. gear train, other gear trains available on special order. See listing on this page. Size: 3⅝x5⅝x4⅛". Shpg. wt., 4 lbs.

62F1234.	0 to 500°F.	**139.00 Ea.**
62F1233.	0 to 1000°F.	
62F1228.	0 to 1500°F.	
62F1227.	0 to 2000°F.	
62F1226.	0 to 2500°F.	

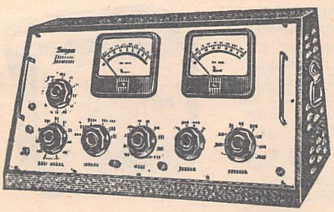
AC POWER TESTER & RECORDER

Model 113. 7-ranges recorder-tester. Rugged, versatile, portable instrument for use in testing of AC voltage and current conditions. Three voltage ranges: 0-150V, 0-300V, 0-600V. Four current ranges: 0-15A, 0-30A, 0-60A, 0-150A. Exclusive "read and write" feature by the twist of a knob. Convenient current measuring with the use of a clamp-on current transformer. This instrument is particularly useful in equalizing load conditions on multiphase power distribution systems. Large paper capacity for monitoring for 31 days. Accuracy ±3%. Supplied with 1 in./hr. gear train, other gear trains available on special order. See listing on this page. Size: 3⅝x5⅝x4⅛". Shpg. wt., 4 lbs.

62F1248. NET.......................................**195.00**

TEST EQUIPMENT

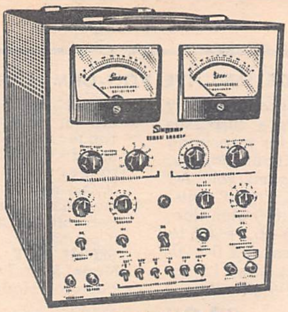
Simpson



INSTRUMENT CALIBRATION STANDARD

Model 2600. This extraordinary, highly accurate instrument is perfect for any laboratory, school, institution, or industry use. Can be used for calibrating instruments of lesser sensitivity. The basic overall accuracy is p/m ½% full scale on DC ranges and p/m ¾% full scale on all AC ranges. Completely self-powered and self-contained. Utilizes two meters—one for DC, one for AC. Both meters utilize the famous Simpson Deep-Core movement, which is temperature compensated for a wide temperature range. Offers a total of 49 ranges as follows: Volts: 0-1.6/4/8/16/40/80/160/400/800/1600 DC and AC; 0-1.6/4//8/16/40/80/160/400/800/1600 DC; ma: 0-1.6/4/8/16/40/80/160/400/800/1600 DC; amps: 0-16 amps DC; resistance: fixed values of 1; 10; 100: 1000; 10,000; 100,000 ohms plus 1, 10, 100 megohms. Accuracy of Fixed Values of resistance is p/m 1%, 1 ohm through 10.0 megohms, and p/m 2% for the 100.0 megohm value. An easy to read instruction manual is included. Easy-carrying handles, sliding front panel for convenient accessibility. Power requirement: approx. 50 watts at 117.5 V. 60 cycles/second. Dimensions: 31'' wide x 15'' high x 15'' deep. Temperature correction chart provided to assure the basic accuracy over the temperature range of 45°F. through 105°F. Shpg. wt., 135 lbs.

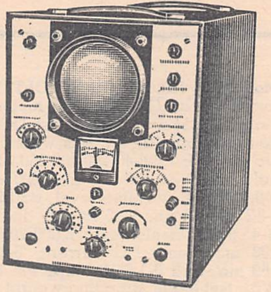
62F376. NET EACH.................... **1620.00**



LABORATORY TYPE PULSE GENERATOR

Model 2620. Perfect for the lab technician. Newly designed for extra accuracy and self-contained operation. Two large 4½'' ''Wide Vue'' meters display the PRF and Pulse Duration. The PRF is continuously variable from 10 to 100,000 pulses/sec. in four ranges: 10-100, 100-1000, 100-10,000, 10,000-100,000. Accuracy of p/m 5%. Rise time is .02 microseconds and decay time is .03 microseconds. 80 volts minimum output and 25% maximum duty cycle. ''Single shot'' operation possible with front panel push button. Pulse duration continuously variable from 0.1 to 1000 microseconds in four ranges: 0.1-1, 1-10, 10-100, 100-1000. Pos. or neg. pulse polarity. Output: Impedance—93 ohms; attenuator—six fixed sections, with attenuation of 1, 2, 3, 5, 10 and 20 db, plus variable attenuator of 10 db., range. Matched termination provided. The Model 2620 may be triggered by means of external sine wave or trigger having amplitude of 12 to 600 volts P-P. ''Gated'' operation is provided for. All external connections made via BNC type connectors, except binding post ground connections. Detachable line cord provides power line connection. Instruction manual included. Power requirements: approx. 250 watts at 117.5 volts, 50-60 cps. Dimensions: 13¼'' wide x 15½'' high x 21'' deep. Shipping weight: 45 lbs.

62F378. NET EACH.................... **625.00**

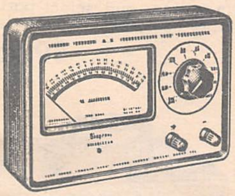


LABORATORY TYPE WIDE BAND OSCILLOSCOPE

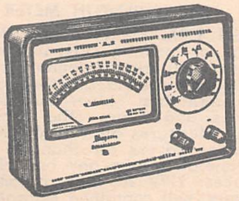
Model 2610. High quality, extremely sensitive oscilloscope precision engineered for laboratory quality accuracy. Vertical characteristics: Sensitivity—(input no. 1) 6 millivolts/in. without delay line, 12 millivolts/in. with delay line; (input no. 2) 6.0 millivolts/in., Attenuation: 7 steps providing multipliers of X1, X3, X10, X30, X100, X300, X1000, plus variable atten. with a range of 12 db. Rise time of vert. amp. is 0.1 micro sec. Vertical amp. provides two modes of operation, ''Linear,'' flat to 5.0 megacycles, down 3.0 db at 8.0 megacycles, and ''Transient'' response. The amplitude of any part of the waveform may be read with an accuracy of p/m 3% under most operating conditions. Horizontal characteristics: Sensitivity: 30 millivolts/in. Attenuation: 3 steps of 20 db/step, plus a variable atten. with a range of 22 db. Recurrent sweeps from 3.0 cps to 500.0 kcps are provided. Four precalibrated and very stable sweeps are also available: 500 milliseconds, 5 milliseconds, 50 microseconds, and 5 microseconds. Standard accessories include a 10:1 probe, a green filter, detachable line cord, complete instruction book, and a calibrated and illuminated graticule. Power requirements: 200 watts at 117.5 V. 50-60 cycles/sec. Dimensions: 11½'' wide, 15'' high, 20½'' deep. Shipping weight, 65 lbs.

62F377. NET EACH.................... **575.00**

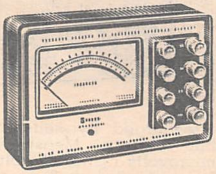
PORTABLE • SINGLE & MULTI VOLTMETERS, AMMETERS, MILLIAMMETERS



Model 1700



Model 1702



Model 1701

For general industrial lab testing and production line use. Each has accuracy of ½ of 1% of full scale in horizontal position at 25° C. Mirror scale length: 5.5". Magnetic damping. Deep core magnet meter movement (1⁵⁄₁₆"). Range switch: rotary, ceramic, solid silver contacts. Tubular aluminum knife-edge pointer. Etched aluminum panel. Zero adjuster: external. Steel case, 11⅜x7⅜x3¼".

Model 1700 DC Voltmeter. Ranges: 0-1.5, 3, 7.5, 15, 30, 75, 150, 300, 750, 1500. Sensitivity; 1000 ohms per volt. Dielectric test: 3000 V. RMS. Weight 6 lbs.

62F1183. NET.................... **160.00**

Model 1701 DC Ammeter. Ranges: 0-0.75, 1.5, 3.0, 7.5, 15, 30, 75. Dielectric test: 3000 V. RMS. Weight 8 lbs.

62F1184. NET.................... **155.00**

Model 1702 DC Milliammeter. Ranges: 0-1.5, 3, 7.5, 15, 30, 75, 150, 300, 750, 1500. Dielectric test: 3000 V. RMS. 5 lbs.

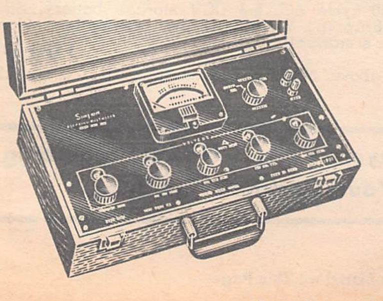
62F1185. NET.................... **135.00**

Model 1703 DC Microammeter. Ranges: 0-75, 150, 750, 1500. Dielectric test: 3300 V. RMS. Weight 6 lbs.

62F1186. NET.................... **140.00**

Model 1704 DC Millivoltmeter. Ranges: 0-30, 75, 150, 750, 1500. Sensitivity: 200 ohms per volt. Weight 6 lbs.

62F1187. NET.................... **150.00**



SIMPSON'S NEW DC DECADING VOLTMETER

- **Outstanding reading accuracy of .1%—achieves maximum efficiency**
- **Lightweight. Compact for complete Take-Anywhere-Portability**

Model 1900. Brand new lab type unit features a DC voltage range of 1 thru 1000 volts DC with an accuracy reading of .1%. Tops for general purpose laboratory use and field application. Designed for maximum accuracy, a high degree of operational stability and convenient portability. Completely self-powered, self-calibrating, lightweight. Voltage accuracy: p/m .1% of reading at 25° C; p/m .25% of reading from 15° C to 35° C. Accuracy of calibration source: p/m .05%. Accuracy of decades: p/m .05%. Sensitivity: 1000 ohms per volt. Size: 17x9x6½". Shipping weight 17 pounds.

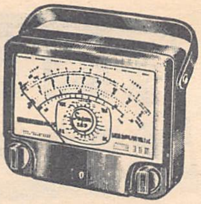
62F1188. NET.................... **345.00**

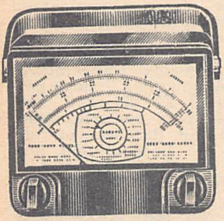
33 RANGE SENSITIVE VOLT-OHM-MICROAMMETER

Model 269. 100,000 OHMS/VOLT. The world's first commercially available 100,000 ohm/volt meter. Input resistance surpasses many VTVM's on the higher DC ranges. Ideal for measuring voltages found in TV sets without loading the circuit. Ranges: DC volts, 0-1.6-8-40-160-400-1600-4000 at 100,000 ohms/volt; AC volts, 0-3-8-40-160-800 at 5,000 ohms/volt; AF output volts, 0-3-8-40-160. Volume level, calibrated across a 600 ohm line, —12 to +11 db, +.5 to +19 db, +14.5 to +33.5 db, +26.5 to +45.5 db. Resistance: 2,000-20,000-200,000 ohms and 0-2-20-200 megohms. DC current, 0-16-160 microamperes. 1.6-16-160 ma, and 0-1.6-16 amperes. Molded case. 7 15/16x6x2 15/16''. With test leads. Shipping weight, 6 pounds.
62F330. NET.......... **89.95**

Model 262. 20,000 OHM/VOLT. Similar unit except low current range is 0-80 microamperes instead of 0-16, and resistance ranges are as follows: 0-500-5,000-50,000-500,000 ohms and 0-5-50 megohms. Sensitivity 20,000 ohms per volt on DC. Shipping weight, 6 pounds.
62F331. NET.......... **69.95**

Model 5262. Ever-Redy carrying case for Models 262, 269 and 388 testers.
62F329. NET.......... **9.95**





The ideal unit TV and Radio Service. Lightweight . . . carry it anywhere!

VOLT-OHM-MILLIAMMETERS WITH 7" METERS

Model 267 & Model 268. Ideal for TV and Radio service and anywhere where accurate repetitive readings are required. Feature high sensitivity (5000 ohms per volt for AC and 20,000 ohms per volt for DC ranges) and improved readability. 7" meter with spread out Black and Red scales for easier and faster reading. One major switch selects range position and function at the same time to provide efficient operation. Improved frequency response in AC measurements: ±2 db at 5-500,000 cps. Full wave bridge rectifier for high AC measurements accuracy. Accuracy: DC Volts, Milliamperes, Amperes, ±3% of full scale, DC Microamperes: ±2% of full scale, AC Volts: ±5% of full scale, Ohms: ±3% of linear arc.

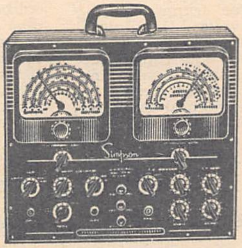
MODEL 268 VOM

Ranges: AC/DC Volts: 0-3, 12, 60, 300, 600, 1200; DC Microamperes: 0-50; DC Milliamperes: 0-1.2, 12, 120; DC Amperes: 0-12; DB Scale: —12, +11; 1 mw, 600 ohms. Output Ranges: to 300 VAC; Ohms: 0-2000 (12 ohms, center), 0-20,000 (1200 ohms, center), 0-20 Megohm (120K ohms, center). Dimensions: 6x7¼x3¼". Shpg. wt., 4 lbs.
62F394. With leads and oper. man. **NET**.. **54.95**

MODEL 267 VOM

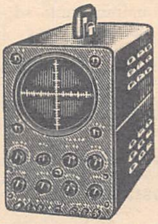
Ranges: AC/DC Volts: 0-2.5, 10, 50, 250, 500, 1000; DC Microamperes: 0-50; DC Milliamperes: 0-1, 10, 100, 500; DC Amperes: 0-10; DB Scale: —20, +10; 1 mw, 600 ohms. Output Ranges: to 250 VAC. Ohms: 0-2000 (12 ohms, center), 0-20,000 (1200 ohms, center), 0-20 Megohm (120K ohms, center). Dimensions: 6x7¼x3¼". Wt., 4 lbs.
62F395. With leads and oper. man. **NET**.. **54.95**

TV-FM SIGNAL GENERATOR



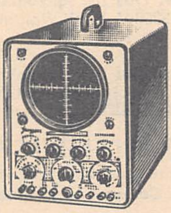
Model 479. A marker generator, FM sweep generator, and crystal calibrator. Ideal for aligning RF, oscillator, IF and trap circuits. Oscillator ranges: AM; 3.3-15.6 mc, 15-76 mc, 75-260 mc (30% modulated at 400 cycles or unmodulated); FM, 2-120 mc and 140-260 mc. Sweep width, 0 to 15 mc at 60 cycles. Audio oscillator, 400 cycles, 5 mc crystal calibrator has .05% accuracy. Output matches 300 or 750 ohms. 22x14x7½''. With leads. 110-120 volts, 60 cycles. Shpg. wt., 35 lbs.
62F307. NET.......... **375.00**

5" OSCILLOSCOPE



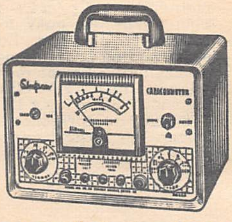
Model 466. A small handy scope designed to handle practically any radio-TV service job. Vertical Amp: ±1 db 15-100 Kc. 6 db down at 250 Kc, useable to 1 Mc. Maximum vertical Defl. Sensitivity: 30mv/inch. Sweep Range: 15 cy to 80 kc. Maximum input voltage: 400 volts peak. Calibrating voltage (at 117.5 VAC power source): 1 volt P-P ±10%. Horizontal Amplifier: ±1 db 15 cy to 20 kc; 6 db down at 100 kc. Max./Horiz. Defl. Sensitivity: 0.7 volt/inch. Z-axis Sensitivity: 20 volts RMS. Input Resistance: 0.1 Meg (at atten. x 1); 0.5 Meg (at atten. x 100). Supplied with leads and operator's manual. Shipping weight, 40 lbs.
62F347. NET.......... **149.95**

7" COLORSCOPE



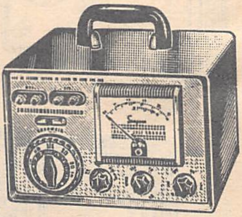
Model 458. Latest features for color and black and white TV testing. Bandpass flat ±1 db. 20 cyc/sec. to 4.5 mc to show color burst accurately. Fast horizontal sweep to 250 kc for expansion of fine waveform detail and color burst. Features: AC response shows modulation percentage in chroma, Y and sound circuits; compensated decimal step attenuator for faster voltage measurements and flat vernier attenuator for eliminating waveform distortion; facilities for intensity modulation of CRT. Sensitivity: 0.02 volt per inch obtains full screen deflection when checking low-gain circuits. Accurate peak-to-peak voltage measurements for trouble shooting video, sync and sweep circuits. With probes, instructions. Shpg. wt., 45 lbs.
62F339. NET EACH.......... **249.95**

CAPACITOR CHECKER



Model 383A. Extremely flexible capacity-meter in-circuit leakage tests. Measures leakage in ohms of defective paper, mica, or ceramic condensers . . . shows the actual capacitance of good ones .. detects intermittent or marginal ones about to cause trouble. No critical bridge balancing, and many tests are performed with the part "in circuit". Measurements are made under actual load conditions. Can also be used to detect leaky transformer coils, measure distributed capacity in wiring, and select parts for critical applications. For 105-125-v., 60-cycle AC. With leads. Shipping weight, 12 lbs.
62F345. NET.......... **89.95**

CALIBRATED FIELD STRENGTH METER



Model 498A. Field Strength Meter. Ideal for locating maximum signal areas, comparing antenna systems, adjusting antenna boosters, antenna orientation, tuner substitution checks and many other applications. Measures all VHF & UHF TV signals. Covers all channels. Can be operated from any one of four sources: 117V AC line, automobile battery, self contained storage battery or an external battery. Internal storage battery can be recharged by self-contained charger or from an automobile battery. Measures field strength from approximately 20 microvolts up to .05 volts with an accuracy of ± 6 db on VHF signals and ± 8 db on UHF signals. Continuously variable sensitivity. Line Voltage: 105/125 volts, 50/60 cycle AC. 6.3 DCV storage battery. Size: 9⅜''x11⅜''x9½''. Shipping Weight: 18 lbs. less battery. Complete with operator's manual.
62F371. NET.......... **199.95**
62F372. Battery for above. **NET**.......... **16.95**

Industrial Buyers: Consult Newark regarding All Your Electronic Problems

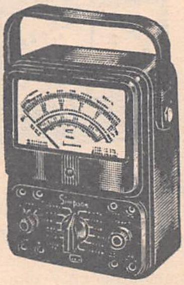
See Simpson Accessory Listing for Cases and Test Leads for Units Listed on This Page

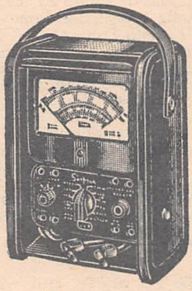
FAMOUS SIMPSON 260 SERIES 3 VOM

- **Designed with rugged printed circuit.**
- **Adjust-A-Vue Handle for greater viewing ease.**
- **30 Ranges: 20,000 ohms per Volt DC.**

Model 260. Volt-Ohm-Milliammeter. Handier. More sensitive, more accurate. Polarity Reversing Switch for faster, easier DC measurements. Full-Wave Bridge Rectifier System gives more accurate VAC measurements. Easy access to all components. Ranges—VDC (20,000 ohms-per-volt); 0-250 MV, 0-2.5 V, 0-10V, 0-50V, 0-250V, 0-1000V, 0-5000V, VAC (5000 ohms-per-volt): 0-2.5V, 0-10V, 0-50V, 0-250V, 0-1000V, 0-5000V; VAF (0.1 uf internal series capacitor): 0-2.5V, 0-10V, 0-50V, 0-250V; DB Vol. (0 DB to 1 MW across 600-ohm line): —20 to +10DB, —8 to +22DB, +6 to +36DB, +20 to +50DB; DC Resistance: 0-2000 ohms (12 ohms center), 0-200,000 ohms (1200 ohms center), 0-20 megohms (120,000 ohms center); Direct Current: 0-50 μa, 0-1 MA, 0-10 MA, 0-100 MA, 0-500 MA, 0-10 amp. Size: 5¼x7x3⅛". 3½ lbs. **with Leads.**

62F300. NET **48.95**


Model 260.


Model 260RT.

ROLL-TOP MODEL 260 RT

Lightweight, carry-anywhere unit, same as Model 260 above, but has bakelite roll-top cover and convenient test-lead compartment. Wt. 9 lbs.

62F303. NET **54.95**

See Simpson accessory listing for cases and test leads for above units

30 RANGE 20,000 OHMS/VOLT VOLT-OHM-MILLIAMMETER

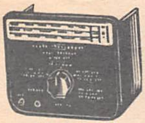
Model 270 is a 30-range, multi-scale instrument that includes all of the excellent features of the world-famous 260, plus a mirrored scale, knife-edge pointer, and printed circuit. It offers dependability and repeatability, ruggedness, and the higher accuracy necessary for many production and laboratory applications. The instrument has an easy-to-read 4½" meter at top of front panel. 3 operating controls and 8 circuit jacks are located directly below the meter. 7 DC voltage ranges (at 20,000 ohms per volt) are: 0-250 MV, 2.5V, 10V, 50V, 250V, 1000V, and 5000V. 6 AC ranges (at 5,000 ohms per volt) include: 0-2.5V, 0-10V, 0-50V, 0-250V, 0-1000V, and 0-5000V. 4 AF output voltages with 0.1μf internal series capacitor are 0-2.5V, 0-10V, 0-50V, 0-250V. Three resistance ranges: 0-2000 ohms (12 ohms center), 0-200,000 ohms (1200 ohms center), and 0-20 megohms (120,000 ohms center. 4 volume levels include —20 to +10 db., —8 to +22 db., +6 to +36 db., and +20 to +50 db. Variable resistance in ohmmeter circuit is used to compensate for aging of internal batteries. Heavy bakelite case is black with reinforced walls for maximum durability. Entire instrument slips in and out of case in one piece. Size: 5¼x7x3⅛". Shpg. wt., 4.2 lbs.

62F380 NET **59.95**

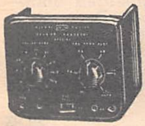
Model 270 RT. This model is exactly the same as the above, except it has roll-top case.

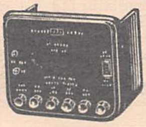
62F381. NET **65.95**

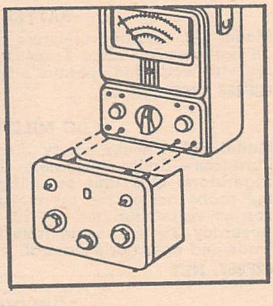
OUTSTANDING VOM ADAPTERS FOR SIMPSON 260 AND 270 VOM SERIES


Model 654

Model 651


Model 655


Model 653



- **Integral-unit design . . . simply plug together!**
- **Self-powered, self-contained!**

A new concept in test equipment design! Just plug in these new 260 and 270 adapters and you have an integral unit designed to provide versatility for all types of instrument testing. Each adapter makes use of the 260's and 270's top-notch meter and circuitry. The Add-A-Tester line provides convenience and portability never before seen in the test equipment field.

TRANSISTOR TESTER

Model 650. Provides complete test for all transistors. Beta ranges include 0-10, 0-50, and 0-250 (F.S.). Beta accuracy is ±3%, with 260 ±5% nominal. Ico range: 0-100 microamperes. Ico accuracy: ±1%, with 260 ±3% (F.S.). Size 3⅝"x5 5/16"x2⅞". Shipping weight: 1 lb.

62F382. NET **26.95**

DC VACUUM TUBE VOLTMETER

Model 651. Voltage ranges: 0-.5/1.0/2.5/5.0/10/25/50/100/250/500. Accuracy: ±1%, with 260 ±3% (F.S.) Input impedance: greater than 10 megohms on all ranges. Size: 3⅝x5 5/16"x2⅞". Shipping weight: 1 lb.

62F383. NET **32.95**

TEMPERATURE TESTER

Model 652. Temperature ranges: —50°F to +100°F, and +100°F to +250°F. Accuracy: with 260 ±2% (nominal). Three lead positions provided. Thermistor sensing element. Size: 3⅝"x 5 5/16"x2⅞". Shipping weight: 1 lb.

62F384. NET **38.95**

AC AMMETER

Model 653: Ranges: 0-0.25/1/2.5/12.5/25 amperes. Accuracy: ±1%, with 260 ±5% nominal. Frequency range: 50 cycles to 300 cycles. Case size: 3⅝x5 5/16x2⅞". Shpg. wt., 1 lb.

62F385. NET **18.95**

AUDIO WATTMETER

Model 654. Load ranges: 4, 8, 16, 600 ohms. Wattage: Continuous 25 watts (8,600 ohms), 50 watts (4, 16 ohms); intermittent 50 watts (8,600 ohms), 100 watts (4, 16 ohms). Accuracy: ±5%, with 260 ±10% nominal. Direct reading scale from 17 microwatts to 100 watts. Size: 3⅝"x5 5/16"x2⅝". Shipping weight: 1 lb.

62F386. NET **18.95**

MICROVOLT ATTENUATOR

Model 655. Ranges: 2.5 microvolts to 250,000 microvolts continuously variable in decade steps. Frequency: DC to 20 KC. Accuracy: ±1 decibel. Case size: 3⅝"x5 5/16"x2⅞". Shipping weight: 1 lb.

62F387. NET **18.95**

BATTERY TESTER

Model 656 Checks all radio and hearing aid batteries up to 90 volts at the manufacturer's recommended load, or any external load. Case size: 3⅝"x5 5/16"x2⅞". Shipping weight: 1 lb.

62F388. NET **19.95**

260 CONVERSION CASES

Model 401. For Models 260, Series III and 270. Consists of a new case with a latching feature to provide a firm support for the adapter and the 260 or 270.

62F389. NET **1.95**

Model 402. For Model 260, Series II. Consists of case with adapter locking and parts for adding a 50 microamp range.

62F390. NET **3.95**

MILLIOHMMETER MODEL 657

Plugs into any 260 to measure resistance values as low as .001 in 3 ranges—.1; .5; 1.0. Independent of contact resistances. Will not overheat small resistors.

62F393. NET **39.95**

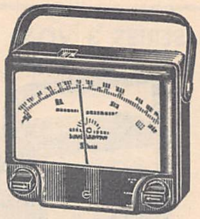
DC AMMETER MODEL 661

Plugs into any 260 or 270 to make a portable DC Ammeter. Model 661 contains five ½% shunts which eliminate the need for separate meters or individual shunts to measure 0-1, 2.5, 5, 10, and 25 amperes. Removes the need for many leads ordinarily used with individual shunts.

62F392. NET **17.95**

PANEL METERS

THERM-O-METER



Model 388-3L. The Therm-o-meter measures the temperature of air, gases, liquids, or solids by means of thermocouple type leads from —50°F to +1000°F. Both Fahrenheit & Centigrade readings can be made in 15 to 30 sec. and up to a distance of 7½'. A selector switch on the 388-3L connects any one of the three leads into the meter circuit. The lead wires are small enough to pass through a closed door and gasketing. The meter movement is self-shielding. A compensator circuit automatically corrects room temperature effects from 60 to 100° F. With one general purpose lead, battery, and operator's manual. 7$\frac{15}{16}$x6x2$\frac{15}{16}$''. Shipping weight, 4 lbs.

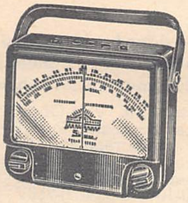
62F350. NET **67.95**

Model 388. As above, but will accommodate only one thermo-couple lead.

62F336. NET **62.95**

62F352. NET **4.95**

DUAL RANGE THERM-O-METER



Model 389-3L may be used to measure temperatures of gases, liquids, or solids in many fields; frozen food packaging, ice manufacturing, freezer storage, refrigeration, photo processing, air conditioning, and numerous others. Using the three leads, readings may be made in three different locations at once. There are two ranges. A low from —50°F. and a high from 100°F to 250°F. Accuracy is within 3°F in any position, near center of scale within 2°F or better. Compensation for room temperature effects. Large easy to read 7'' meter. Self shielded core magnet, minimizes heavy electrical interference. Includes sensing probes with thermistors, tip and 15' lead, and batteries. Black bakelite case. 7$\frac{15}{16}$x6x2$\frac{15}{16}$''. Shipping weight, 6 pounds.

62F391. NET **62.95**

MICRO-TESTERS

COMPACT AC-DC VOLT-OHM-MILLIAMMETER

Model 240. Designed for radio testing. Sensitivity 1000 ohms-per-volt on AC and DC. Ranges: DCV, 0-15-150-300-750-3000; ACV, 0-15-150-750-3000; ma, 0-15-150-750; ohms 0-3000 (center scale 30), 0-300,000 (center scale 3,000). Accuracies: DC volts ±3% F.S.; AC volts ±5% F.S.; DC Resistance ±3% of arc from absolute value of resistance measured. Complete with test leads and operator's manual. Black bakelite case. 3x5⅞x2½''. Shpg. wt., 3 lbs.

62F313. NET **31.95**

AC-DC VOLT-WATTMETER

Model 391. 3000 W. max. Volts: 0-130, 0-260; Watts: 0-1500, 0-3000. Simultaneous volts and watts readings. Two separate 3'' square meters. Separate range selection toggle switches. Cord, plug, manual. 3x5⅞x2½''.

62F355. NET **43.95**

Model 392. As above except 5000 watts max. ranges—0-1000, 0-5000.

62F356. NET **43.95**

Model 3413. Leatherette covered carrying case for Models 391 and 392 described above.

62F357. NET **5.95**

AC VOLTMETER

Model 371. Designed primarily for testing voltages applied to to motors, heating equipment and many other industrial applications. Accuracy: ±3% of full scale. 0-150, 0-300, 0-600 volts, 3x5⅞x2½''.

62F360. Shpg. wt., 3 lbs. **NET** **22.95**

DC MICROAMMETER

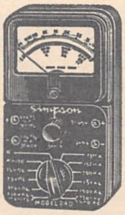
Model 374. Basic movement sensitivity 50 microamperes with self contained shunts for all other ranges. Can be used with external resistors or multipliers as a high sensitivity voltmeter at 20,000 ohms per volt. Can be shorted out of circuit by use of ''short'' selector knob. 0-50, 100, 250, 500, 1000 μa. 3x5⅞x2½''. Shipping weight, 3 lbs.

62F361. NET **24.95**

DC AMMETER

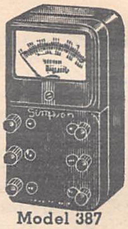
Model 375. Provides a complete range from a fraction of an amp to 2.5 amps without the necessity of using auxiliary external shunts. 0-1, 2.5, 5, 10, 25 amps. 3x5⅞x2½''.

62F362. Shpg. wt., 3 lbs. **NET** **21.95**



Model 240

Model 362



Model 387

AC MILLIAMMETER

Model 378. (Self-contained current transformer.) Five separate ranges make it suitable for a wide variety of testing applications. 0-5, 25, 100, 250, 1000 ma. 3x5⅞x2½''. Shpg. wt., 3 lbs.

62F365. NET **24.95**

BATTERY TESTER

Model 379. Loading resistors of 1% accuracy to properly load all batteries including Transistor-Radio and Hearing Aid batteries with leads and operator's manual. 3x5⅞x2½''. Sh. wt., 3 lbs.

62F366. NET **29.95**

DC MILLIVOLTMETER

Model 387. Checks safety thermocouples on gas-fired units—Furnaces—Boilers—Heaters—Hot Water Heaters—Dryers—Refrigerators. Gas unit servicing faster, accurate, simply place the probe across the thermocouple terminals and test for the correct value. Ranges are 10, 30, 100, 300 and 1000 millivolts. Accuracy 3% full scale from 50° to 120° F. 3x5⅞x2½''. With leads and operator's manual.

62F367. NET **29.95**

LOW-OHM METER

Model 362. Two ranges. Very accurate readings from 0.1 to 25 ohms. Ideal to check motor armatures and fields; switch and relay contact resistances; shorts between generator windings and grounds; shorts in TV and radio chassis wiring; industrial electrical equipment. Accuracy ±3% full scale. Complete with test leads.

62F368. NET **24.95**

PORTABLE DC MILLIAMMETER

Model 373. Provides DC current measurements from 1 to 1,000 MA. Ranges: 0-1, 5, 10, 25, 50, 100, 250, 1000 milliamperes, 3x5⅞x2½''. Shipping weight, 3 lbs.

62F323. NET **21.95**

AC VOLT-AMP-WATTMETER

Model 390. Built for continuous full-load operation. Tests power consumption on all types of appliances. Ranges: 0-150-300 ACV; 0-3-15 amps.; 0-300-600-1500-3000 W. 60-cyc. operation, 3'' meter. 3x5⅞x2½''. Break-in plugs & leads. 4 lbs.

62F317. NET **48.95**

AC AMMETER

Model 370. Built-in current transformer. Measures current drain of appliances, motors, heating elements, radios, etc. Ranges: 0-1-2.5-5-10-25 amperes. Bakelite case, 3x5⅞x2½''. 60 cycle operation. Less leads. Wt., 3 lbs.

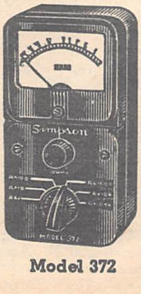
62F319. NET **22.95**

WIDE-RANGE OHMMETER

Model 372. 0.2 ohm—50 megohms. Ohms adjuster compensates for battery variation. 85 microamp. sensitivity. Range: 0-500-5000-50,000-500,000 ohms & 0-5-50 megohms. 3x5⅞x2½''. Batteries & leads. 3 lbs.

62F318. NET **29.95**

Model 390



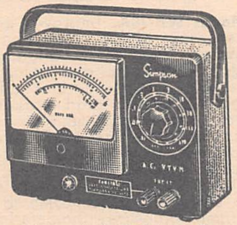
Model 372

See following page for cases and test leads for above units

TEST EQUIPMENT & ACCESSORIES

Simpson

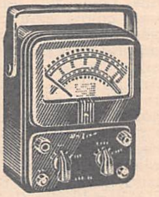
HIGH SENSITIVITY AC VTVM



Model 715. Sensitivity: 10 millivolts full scale on lowest range. Input impedance: Minimum of one megohm at 1 KC. Frequency response: flat within one decibel between 10 cps and 400 KC. One percent tolerance precision resistors used throughout as internal multipliers. Meter scale provides DB markings on both the voltage range positions. AC rms volts 0-0.01, 0.03, 0.1, 0.3, 1.0, 3.0, 10, 30, 100 and 300. Decibels: total range, —52 to +52 DBM (at Zero DBM, reading is one millivolt across 600 ohms). Scale reads —12 DB to +2 DB. Accuracy on all ranges: ±5% of full scale. Unit requires 110-125 VAC, 50-60 cycles. 7½"W x 5½"H x 3"D. Gray hammertone finish. Shpg. Wt. 3 lbs. Complete with operator's manual, all test leads.

62F1182. NET **69.95**

VACUUM TUBE VOLT-OHMMETER



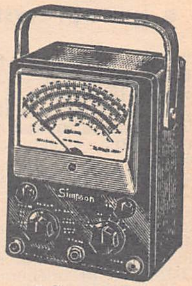
Model 303. Can be used as a DC voltmeter, an ohmmeter, an AC voltmeter, an AF voltmeter, an RF voltmeter (with RF probe below) and an output meter. Has zero-center scale for FM discriminator alignment. Input resistances: DC, 10 meg-ohms (DC probe has 1-meg isolating resistor) AC and DC volts: 0-1.2-12-60-300-1200. AF volts: 0-1.2-12-60, flat to .100KC. Resistance, ohms: 0-1000-100.000 and 0-1-10-1000 meg ohms. Db: —20 to +63 in 5 ranges. 4½" meter. Polarity reversing switch. Includes DC and AC-Ohms probes. In bakelite case, 7x5¼x3⅛". For 105-125 volts, 60 cycles. Wt., 6½ lbs.

62F304. NET **73.95**

Model 303 RT. As above in "Roll-Top" bakelite case.

62F327. NET 82.95

VACUUM TUBE VOLT-OHMMETER



Model 311. Multirange all purpose VTVM cuts circuit loading effects to minimum. Accessory RF probe can handle AC voltages to 150 V RMS or 400 V peak-to-peak. High voltage breakdown exceeds 2000 volts. ACCURACY. VDC ±3% of full scale; VAC ±5% of full scole; DC Resistance ±3% of full scale. RANGES: VDC and VAC 0-1.5, 5, 15, 50, 150, 500, 1500 volt. AF Voltage: 0-1.5, 5, 15, 50, 150, 500, 1500; RF Voltage (with probe): 0-1.5, 5, 15. 50, 150 (50 cps to 100 MC.) Peak-to-Peak voltage: 0-4, 14, 40, 140, 400, 1400, 4000 volt; Resistance: Rx1, Rx10, Rx100, Rx1K, Rx10K, Rx100K, Rx1M. Zero center DC measurements: —0.750 to +0.750. Line Voltage: 105-125 volts, 50/60 cps. Complete with AC/DC/Ohms probe, ground lead and operator's manual. Size: (HWD) 7½"x5⅝"x4½". Shpg. wt. 6 lbs.

62F375. Model 311. NET **69.95**

"MIDGETESTER" VOLT-OHMMETER

Model 355. VOM, ideal for radio, appliance and TV servicemen. Sensitivity 10,000 ohms per volt on both AC/DC. Accuracy 3% on DC, 5% on AC of full scale voltages. Ranges: AC/DC volts 0-3, 12, 60, 300, 1200; Ohms 0-10K, 100K, 1 meg, 10 meg. Compactness and sensitivity made possible by 100-micro-amp self-shielded core meter movement. Sturdy, polished styrene case. Size 2¾x4½x1". With set of probe leads and instruction manual. Wt. 1 lb.

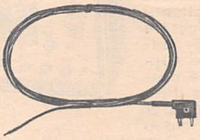
62F335. NET **34.95**

ACCESSORIES FOR SIMPSON TEST EQUIPMENT

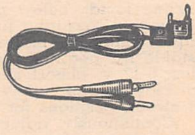
Model 4236 Ever-Redy Carrying Case

Model 5262 Ever-Redy Carrying Case

Microtester Ever-Redy Carrying Case



General Purpose Thermocouple Leads



Banana Plugs & Alligator Clips for 260-3

LEADS

Model 7500. Banana Plugs and Alligator Clip. For Model 260, Series 3.
62F370. NET 2.10

Model 7538. Banana Plugs and Test Prods. For Model 260, Series 3, 267, and 268.
62F325. NET 2.50

Model 8600. Test Prods. For Model 355.
62F353. NET 1.85

Model 0010. 15 foot Thermistor Lead. For Model 385-3L and 389-3L.
62F396. NET 4.75

Model 0216. 30 foot Thermistor Lead. For Model 385-3L, and 389-3L.
62F397. NET 5.55

Model 0190. General Purpose Thermocouple. For Model 388-3L.
62F352. NET 4.95

Model 0187. Surface Temperature Thermocouple (300° F MAX.) For Model 388-3L.
62F351. NET 8.90

Model 0084. Surface Temperature Probe. For Model 389-3L.
62F398. NET 4.95

Model 8381. Test Prods and Elbow Terminals. For Models 230, 240, 260-2, 372.
62F369. NET 2.50

Model 8379. Test Prods and Spade Terminals. For all Microtesters.
62F399. NET 2.50

Model 8375. Alligator Clips and Elbow Terminals. For Models 230, 240, 260-2, and 372 .
62F343. NET 8.58

CARRYING CASES

Model 1818. Leather carrying case for Models 260 and 270.
62F301. NET 8.50

Model 4236. Ever-Redy carrying case for Models 260, 270, and 303. Leather.
62F302. NET 9.75

Model 5262. Ever-Redy carrying case for Models 262, 267, 269, 388-3L. Vinyl.
62F329. NET 9.95

Model 3413. Leatherette covered carrying case for Models 391, 392.
62F357. NET 5.95

Model 6355. Ever-Redy carrying case for Model 355. Leather.
62F354. NET 3.95

Model 4299. Ever-Redy carrying case for all Microtesters. Leather.
62F326. NET 7.50

PROBES—High Voltage Types

Model 0007. 25,000 volts. For Model 260 Series 2.
62F346. NET 11.95

Model 0074. 30,000 volts. For Model 303.
62F341. NET 11.95

PROBES—Miscellaneous Type

Model 0073. High Frequency. For Model 303.
62F342. NET 8.58

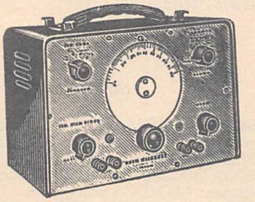
TEST EQUIPMENT

● *NEW* RCA CRYSTAL-CALIBRATED MARKER GENERATOR WR-99A

WR-99A provides crystal controlled frequencies: 1mc, 4.5mc, 10mc. Rf output 19-260mc in 8 ranges, calibrated at 1 mc. and 10mc. intervals. Dual markers spaced at 4.5mc when used with sweep generator and scope to mark picture and sound carrier points on response curve. Output voltage .05rms at crystal frequencies and .1 rms at VFO freq. Internal modulation at 1, 10, 4.5 megacycles, and 600cps. Features: modulation from external source up to 10mc. Plug in LC circuit. 100kc-1mc, RF attenuator 60db in 12 steps of 5db. 90 ohm output cable. 10"Hx13½"Wx7"D. Weight, 17 lbs. Blue/brush chrome front panel.

62F059. NET **242.50**

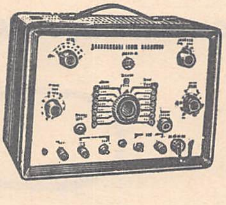
SINE/SQUARE WAVE AUDIO SIGNAL GENERATOR



Model WA-44C. Generates sine or square wave audio frequency signal. Covers a range from 20-200,000 cps in four bands. Can be used for testing freq. resp. characteristics of audio amplifiers and testing loudspeakers and enclosures. Finds impedance of LC combinations. Sine wave circuit; Bridged T oscillator, with cathode follower output. Square wave circuit: Uses the sine wave oscillator with clipping and shaping circuit. Amplitude variation less than ±1.5 db. Harmonic distortion limited to 0.25% from 30 cps to 15 kc. Operates on: 50-60 cps, 105-125 v. Blue Hammerloid case with satin aluminum panel. Size: 10¹¹⁄₁₆"W x 7"H x 6⅛"D. Shpg. wt., 14 lbs.

62F013. NET **98.50**

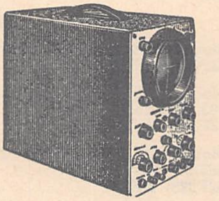
TV/FM SWEEP GENERATOR



Model WR-69A. Test and alignment signals for TV video, IF, and RF channels 2 to 13 plus IF and RF signals for FM radio. Double shielding of oscillator compartment excludes leakage to far below fully attenuated signal—assuring full, accurate output control. 2 built-in fully adjustable DC neg. bias-voltage supplies, 0-12 v, almost eliminate special bias-voltage supply boxes. Preset sweep positions for channels 2-13. Continuously adjustable video sweep signal, 50 kc to 50 mc. Output flat within 0.1 db. Use with WR-89A TV calibrator, WO-91A scope, and WR-70A marker adder for TV bandwidths. 10x13⅝x7". 16 lbs.

62F071. NET **295.00**

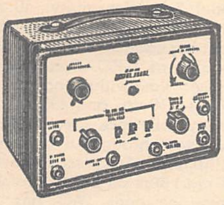
5" WIDE-BAND OSCILLOSCOPE



Model WO-91A. Provides all the functions needed in color TV work! Use it to observe and measure color burst signals. Dual-band response, flat within 1 db from 10 cps to 4.5 mc in wide-band position. Voltage-calibrated frequency compensated 3-to-1 step attenuator in vertical amp. Built-in calibration for peak-to-peak measurements. Positive lock internal sync. Sensitivity .05V. peak-to-peak (.018 v. rms) in narrow band position; 0.15v. peak-to-peak (.053v. rms) in wideband. 13½x9x16½". For 105-125v., 50-60 cycle AC. Complete with direct low-capacitance probe WG-300B, cables, and all tubes. Shipping weight, 32 lbs.

62F056. NET **249.50**

RF-IF-VF MARKER ADDER



Model WR-70A. Improves ease and accuracy of RF, IF, and Video Sweep Frequency alignment for black-and-white and color TV receivers. Choice of four differently shaped, easy-to-read markers. Special voltage-stabilizing circuit steadies trace display. Maximum output voltages of marker signal: 2.5 rms volts; demodulated sweep signal; 10 p-p volts. IF/VF sweep in: 50KC to 50Mc; RF input: 50Mc to 250Mc. Finish blue-grey hammerloid. Input voltage: 105-125 volts. Frequency: 50-60 cps. Power consumption: 25 watts. Size: 10½"x7½"x6¼". Shipping weight: 8 pounds.

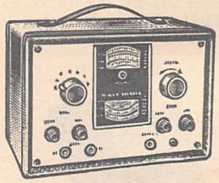
62F072. NET **74.50**

COLOR-BAR/DOT/CROSSHATCH GENERATOR

Model WR-64A. For checking over-all operation of color TV receivers. A must for adusting color phasing and matrixing circuits. Generates ten bars of different colors simultaneously. Has fixed number of bars and dots. Requires no external sinc connections: simply connect to antenna terminal of set. All three patterns are RF outputs, factory set to channel 3. Sound carrier provided to permit adjustment of fine tuning. Features chroma control to check color sync lock and color AFC alignment. Crystal controlled. With shielded output cable, cable carrying bracket and instruction book. Blue Gray case brushed aluminum panel. 13½"W x 10"H x 7½"D. 13 lbs.

62F085. NET **189.50**

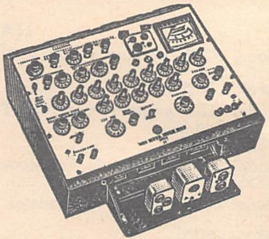
SIGNAL GENERATOR



Model WR-49B. For general alignment work, trouble-shooting and signal tracing. Provides a modulated or CW sinusoidal RF output from 85 kc to 30 mc. With useful harmonics in TV regions, plus audio output at 400 cps. Features: extremely stable cathode-follower output to isolate oscillator from effects of load reactance and resistance, copper-plated steel chassis and case and full-length shielding of output cable minimizes radiation and hum pickup in receiver under test, built-in blocking capacitors prevent putting dc load on circuit under test. With cable, probe, instructions. 105-125 volts, 50-60 cycles. Size: 7½x10½x6". Shipping weight, 14 lbs.

62F012. NET **79.50**

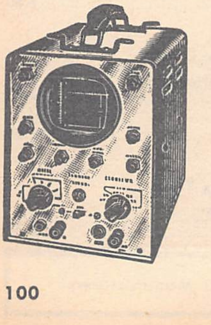
ELECTRON TUBE MICROMHOMETER



Model WT-100A. A transconductance-type tube tester with accuracy approaching that of tube factory equipment! Permits plate, screen-grid, suppressor-grid, control-grid, or AC heater current readings at any desired voltage. Even has 0-3 microamp range for reverse grid-current readings. Plate and screen voltage regulation held within 3%, with control and suppressor grid regulation within 1%. Built-in calibration circuit. Blue-grey hammerloid finished case, with satin-aluminum panel. 105-125 V., 60 cycles AC. Size: 23½x8x18½". Shpg. wt., 50 lbs.

62F055. NET **989.00**

SUPER-PORTABLE OSCILLOSCOPE KIT

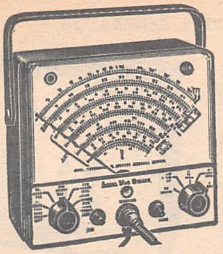


Model WO-33A. Laminated circuit board and mobile-type construction speed and simplify assembly. 3-inch scope has graph screen scaled directly in volts for all ranges making direct reading of peak-to-peak voltages as easy as with a VTVM. Vertical amplifier has 2 band positions, narrow and wide, with 3 rms millivolts/inch and 100 rms millivolts/inch sensitivities respectively. Narrow band position has bandwidth within —3 db, 20 cps to 100 KC Bandwidth of wide band position within —3 db, 5.5 cps to 5.5 MC. Sweep circuit characteristics: sawtooth range 15 cps to 75KC, sync external ± internal, 160 adjustable phase line sweep, and sync range to 4.5 MC. Vertical circuit input impedance: at lo-cap cable input; 10 megohms, 10 micromicrofarads (approximately). Direct input impedance; 1 megohm, 90 micro-microfarads shunt capacitance. Lo-cap probe, direct probe and full Illustrated Instructions are included. Case size: W6½"xH8¾"xD10¼". Shipping weight: 16 pounds.

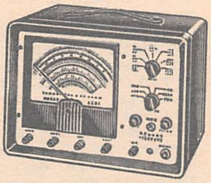
62F048. NET **79.95**

62F049. Model WO-33A. As above, wired and calibrated **129.95**

TEST EQUIPMENT



WV-98C



WV-87B

6½" SENIOR VOLTOHMYST

WV-98C. Measures 8 DC Voltage ranges: 0-.5, 1.5, 5, 15, 50, 150, 500 and 1500. ACRMS values in 7 scales: 0-1.5, 5, 15, 50, 150, 500 and 1500. Frequency Response: (1.5 and 5.0 VAC Ranges): ±1db 30 cps to 3MC. Ohmmeter section 7 ranges: 0 to 1000 megohms. Meter movement: 200μa. Input resistance 11 megohms. Accuracy: ±3% of full scale. Zero-center scale adjustment for FM alignment. 6½" meter. Power consumption: 6 watts. 110-130 Volts 50/60 cycles. Finished in Blue-Gray hammerloid case—satin aluminum panel. Complete with special DC/AC-Ohms shielded probe and cable plus battery. Factory wired and tested. Size: H6½xW7x D3¾". Weight 6 lbs.

62F060. NET.. **79.50**

Model WV-98C (K). Same as above butin KIT form. Comes complete with instructions and diagrams. Weight: 6 lbs.

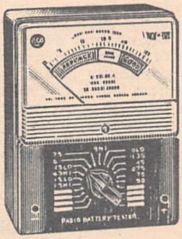
62F074. NET.. **57.95**

● NEW 7½" MASTER VOLTOHMYST

WV-87B. Similar to Senior VTVM WV-98C but also includes a low DC range of 0-.02, plus measures current in 9 ranges: 0-0.5, 1.5, 5, 50, 150, 500 ma and 0-1.5, 15 amps. 7½" mirror-backed meter scale. Power consumption: 5 watts, 105-125 VAC, 50-60 cps. Size: 10"x13½"x7". Weight, 8 lbs.

63F011. NET.. **137.50**

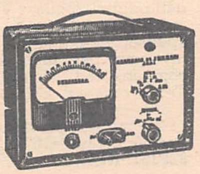
HANDY BATTERY TESTER



Model WV 37-B. Battery Tester. Checks portable radio batteries under load conditions. Voltage ranges are 1.5, 4.5, 6, 7.5, 9, 13.5, 45, 67.5, 75, and 90 volts. Both low and high load positions provided on the 1.5, 4.5, and 9 volt positions. Meter scale indicates good, usable, and replace, and is calibrated in percent of rated voltage. Loads are 1% tolerance. Black plastic case. Probe type test leads and instructions included. 5¼x6¾x4⅜". Wt., 4 lbs.

62F008. NET.............................. **24.95**

ULTRA-SENSITIVE DC MICROAMMETER



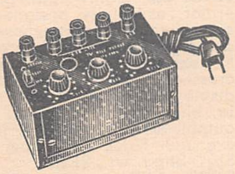
Model WV-84C. Battery-operated vacuum-tube microammeter designed for measuring minute direct currents. When used as a voltmeter, it is suited to circuits where loading is a critical factor. 6 direct current ranges from 0.0002 to 1000 microamps. Will measure up to 1000 volts. Resistance up to billions of ohms by calculation. Accuracy: micro ammeter; ±5% F.S., al other ranges: ±4% F.S. With 50 and 150 meg. multiplier resistors and instruction book. Blue gray hammerloid case with satin aluminum panel. Wt., 12 lbs.

62F006. NET.. **110.00**

49F001. VS004 Battery. 2 required. 1½ lbs. **NET**.................. **1.26**

49F023. VS124 Battery. 2 required. 1½ lbs. **NET**.................. **1.78**

TV BIAS SUPPLY



Model WG-307BK. Three fully adjustable voltages: 0-15V negative, plus a negative 100V nominal for biasing the burst keyer. Black, plastic case. Size: 2½x3x5¼". Wt. 22 oz.

62F027. NET.............................. **11.95**

POWER LINE MONITOR

Model WV-120A. For constant indication of power line voltage. Features: expanded scale 100 to 140 volts indicates true rms values, accuracy ±2% at 120 volts, ±3% at 100 and 140 volts, readable from 10 feet or more, plugs in to power line outlet, wide freq. range, 25 to 400 cps. Blue case. Size 315⁄16x5x31⁄16". Shpg. wt., 2½ lbs.

62F058. NET.............................. **14.95**

RF MODULATOR

Model WG-304B RF Modulator. An accessory used to check the over-all frequency response of TV receivers from antenna to picture tube grid. The unit permits modulation of an rf marker signal from a marker generator (such as WR-89A or WR-99A) by a signal from a video sweep generator (such as WR-59C or WR-69A). Blue case. Size: 7x5½x4½".

62F028. NET.. **12.50**

VIDEO MULTIMARKER

Model WG-295C Video Multimarker. Provides seven simultaneous absorption-type markers at accurately preset frequencies for marking video response curves in color receivers. Markers are at 0.5 Mc (For Q.R-Y, B-Y, G-Y filters), 1.5 Mc (for J filter), 2.5 Mc (for bandpass filter), 3.58 Mc (color subcarrier frequency), 3 and 4.1 Mc (video and band-pass amplifiers), and 4.5 Mc (sound-trap frequency). Each marker is identified by touching a corresponding contact on WG-295C case. This reduces the amplitude of the particular marker. Connects between IF/VF output on the sweep generator and video output cable. Equipped with shorting switch. Blue case. Size: 7x5½x4½". With instruction booklet.

62F044. NET.. **32.50**

5½" VOLT-OHM-MILLIAMMETER KIT

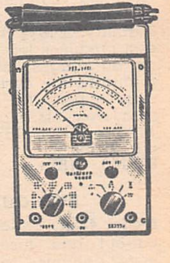
Model WV-38AK. VOM kit with laminated circuitboard construction to simplify assembly. 1-volt and 0.25-volt scale for transistor circuit servicing applications. DC input resistance of 20,000 ohms-per-volt. 8 DC voltage ranges: 0-0.25, 1, 2.5, 10, 50, 250, 1000, and 5000 volts. AC input resistance: 5000 ohms-per-volt. 6 AC voltage ranges: 0-2.5, 10, 50, 250, 1000, and 5000 volts. Frequency response (1000 cps reference) is flat within ½ db from 10 cps to 50 KC on 2.5, 10, and 50 volt ranges. 3 ohm ranges: 0-2000, 0-200,000, and 0-20,000,000 ohms with center scales of 12, 1200, and 120,000 ohms respectively. Accuracy of ±3% on all ranges. 6 DC current ranges: 0-50 μa, 0-1, 0-10, 0-100, 0-500 ma, and 0-10 amps. Supplied with test leads and full instructions. Black Plastic case. Size: 5¼x6⅞x3⅛". Shpg. wt., 4 lbs.

62F051. NET.. **29.95**

62F052. Model WV-38A. As above, wired and calibrated........ **43.95**

62F053. Model WG-270A. Carrying case for above................ **4.95**

PORTABLE VOLTOHMYST KIT



Model WV-77EK. VTVM kit. All ranges are overlapping: DC volts, 0-1.5, 5, 15, 50, 150, 500 and 1500. AC rms 0-1.5, 5, 15, 50, 150, 500, 1500. AC peak-to-peak, 0-4, 14, 40, 140, 400, 1400, 4000. Ohmmeter reads 0.2 ohms to 1000 meg., with center-scale values of 10, 100, 1000, 10,000, 100,000, 1,000,000 and 10,000,000 ohms. Frequency response is flat within ±5% from 40 cps -5 Mc. on the 1.5, 5 and 15 volt rms ranges and the 4, 14 and 40 volt peak-to-peak ranges. Input resistance is 11 megohms for full isolation. Satin aluminum front panel and hammertone gray metal case. Size: 5⅜"Wx7¾"Hx4¾"D. Accuracy: DC ±3%, AC ±5%. 105-125 VAC. 50-60 cps. 5 watts. Shipping weight, 5 pounds.

62F076. NET.. **29.95**

62F075. Model WV-77E(K). As above, wired. **NET**.................. **43.95**

PROBES AND RESISTORS

Model WG-289 High Voltage Probe. For use with RCA models WV-98A, WV-77A, WV-77B, WV-77C, WV-97A, WV-87A and WV-87B Volt-Ohmysts. Extends range to 50,000 volts.

62F020. NET.. **7.15**

Model WG-297 High Voltage Probe. Same as above, for use with RCA model WV-77E and WV-77E(K) VOM's.

62F057. NET.. **7.15**

Model WG-206 1090 Megohm Multiplier Resistor. For VTVM's having 11-megohm input (multiplying factor 100).

68F082. NET.. **2.80**

Model WG-210-900 Megohm Resistor. Multiplies 5,000 volt DC range of 20,000.ohms-per-volt VOM's by a factor of 10.

68F083. NET.. **2.80**

Model WG-211-495 Megohm Resistor. Multiplies 250 volt DC range of 20,000 Ohms-per-volt VOM's by a factor of 100.

68F084. NET.. **2.80**

Model WG-299D. Ohms Probe and Cable. For use with Volt-Ohmysts. Replaces WG-217, WG-218 and WG-222.

62F061. NET.. **7.95**

Model WG-301-A Crystal-Diode probe. Slip-on type to be used with WG-299D to increase frequency range to 250MC.

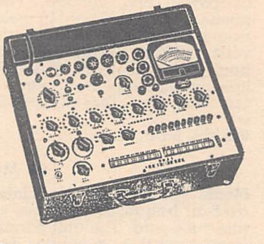
62F063. NET.. **7.75**

Model WG-351-A Crystal Diode probe. Extends frequency range of WV-77C and WV-77E(K) to cover over 100Mc. Alligator clips at input.

62F059. NET.. **4.95**

HICKOK TEST EQUIPMENT

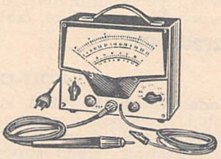
● *NEW* INDUSTRIAL AND COMMUNICATIONS TUBE TESTER



Model 752A. Portable mutual conductance tube tester providing fast and accurate evaluation of an electron tube. Tests VR tubes for firing point, regulating voltage, and current range. Takes 4, 5, 6, 7-pin miniature, 7-pin in-line and 8-pin round subminiature, acorn, Compactron, Novar, and 5 and 7-pin Nuvistor tubes. Gm ranges: 0-1500; 3000; 6000; 15,000; 30,000 micromhos. Inter-element leakage indicated on meter, sensitivity 10 megohms. Test voltages: Filament, 0-117 VAC in 18 steps; signal, 0.25, 0.5, 1.25, 4.5 VAC; plate, 75 and 150 VDC; screen, 56 and 130 VDC; Grid bias variable 0 to —40 VDC; extra negative supply, —40 VDC; diode test, 20 V RMS; 0Z4 test, 287 V RMS. Cathode activity/life test. Dual section tubes tested without setup change. Self-bias test jacks on panel. Bias and line fusing. Illuminated meter and roll chart. Roll chart lists over 1200 types. Size: 16¾Hx18⅜Wx7½"D. Shpg. wt.. 27 lbs.

62F198. NET **345.00**

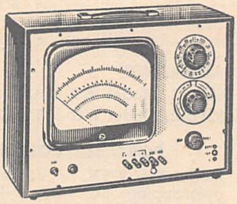
● *NEW* PORTABLE VTVM



Model 470A. Uses only two scales for all measurements including peak to peak. Large easy to read meter with 6" arc top scale. High sensitivity range for transistor bias testing. AC and DC ranges are: 0-.5, 1.5, 5, 15, 50, 150, 500, 1500 volts. Peak to peak ranges: 0-1.4, 4, 14, 40, 140, 400, 1400, 4000 volts. Resistance ranges (center scale = 10): X1, X10, X100, X1000, X10,000, X100,000, X1 meg, X10 meg. Input resistance: DC volts, 15 megohms; AC volts 15 megohms paralleled with approximately 150 mmf. Frequency range: 15 cps to 2.5 mc. DC zero center. Includes 48" long removable test lead and probe. Has range switch for use on AC, DC and Ohms ranges, and 48" long common lead. For 115 VAC, 50/60 cps, 15 watts. Shpg. wt., 10 lbs.

62F196. NET **79.50**

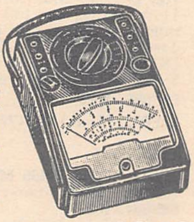
● *NEW* LABORATORY VTVM AND CAPACITANCE METER



Model 209B. Simplified, easy to read meter. ±3% accuracy full scale except Ohms. ±3% arc. AC and DC ranges: 0-0.1; 0.3; 1; 3; 10; 30; 100; 300; 1000 volts. Resistance (design center 10): X1; X10; X100; X1000; X10,000; X100,000; X1 meg. Capacity (design centers 40 mfd and 10 mmf): X10 mfd; X1 mfd; X0.1 mfd; X.01 mfd; X.001 mfd; X100 mmf; X10 mmf. Freq. resp. on AC volts: 10 cps to 100 ks ±1 db. Stability: ±10% change in line voltage produces less than 1% change on all ranges, has transistorized, regulated B+ and heater supplies. Self-contained 0.1 VDC reference supply for resistance measurements, safe for transistor measurements. Capacitance power supply, 0.1 volt. Impedance: 14. Size: 13½Hx18Wx7"D. For 117 VAC, 60 cycles, 50 watts. Shpg. wt., 23 lbs.

62F106. NET **249.00**

BURNOUT-PROOF VOM



Model 455A. Portable VOM. Has overload cut-out and fuse system providing for meter, shunts, resistors and other components. Batteries easily accessible. No soldering required. AC and DC sensitivity 20,000 ohms per volt. AC and DC ranges: 0-3, 15, 60, 150, 600, 1200 volts. Resistance 0-100 megohms. Current 50 microamps, 1, 10, 100, 1000 milliamps, 10 amps. 5 range. Test lds. incl. 8½"x5⅞"x3" tapers to 1¾". Shpg. wt., 5 lbs.

62F134. NET **89.50**

LOW COST VOLT-OHM-MILLIAMMETER

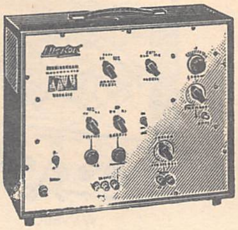
Model 457. Basically the same as model 455A, without overload cut-out. AC sensitivity is 1000 ohms per volt. AC—2000 Ohms/Volt; DB range —18 to plus 57 in 5 ranges.

62F192. NET **45.00**

Case. Attractive and durable neoprene case for both of the above models.

62F195. NET, each **10.00**

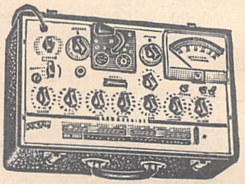
● *NEW* FM MULTIPLEX GENERATOR



Model 725. FM multiplex generator for service of FM stereo receivers and adapters. Only oscilloscope or AC VTVM needed for complete stereo alignment. Composite output: L-R, generated by two stable oscillators (400 and 1200 cps); L+R produced by double balanced modulator, output consists of L-R and 38 kc suppressed carrier; 19 kc pilot carrier to synchronize demodulator of stereo receiver being aligned. Variable output of 0-4 volts, RF output: Tunable 92-104 mc, modulated with composite stereo signal. Variable 2-1000 microvolts. RF input into antenna terminals of receiver to check for adequate bandpass for stereo. Generator accommodates any external signal source, such as stereo mike or record player (1 volt p-p min), useful for demonstration of receivers and adapters. Features Pilot phase check to assure accurate composite signal for maximum separation. Separation is excellent, distortion less than 2%. Also generates 67 kc signal for adjustment of SCA trap in receivers. Size: 13¼Hx16¼Wx7"D. For 105/125 VAC, 50/70 cycles, 75 watts. Shpg. wt. 30 lbs.

62F103. NET **495.00**

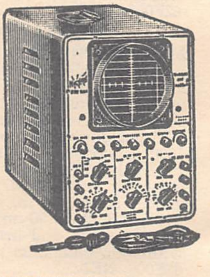
● *NEW* HIGH SPEED GM TUBE AND TRANSISTOR TESTER



Model 6000A. Tests all the new tubes including Compactrons, Novars, Nuvistors, and 10-pin headers. A high speed, extremely accurate tester, has a snap-in master socket panel that removes to expose the new type 11 pin socket that will accommodate foreign as well as standard tubes. Instant line adjust and automatic short indication. Covers 3,000 to 15,000 μmhos in 3 ranges. Shows gas evaluation. Able to determine the reserve capacity of tubes which could cause trouble in the future. A filament continuity button to check for open filaments. Filament voltage from 0.6 to 117 volts in 18 steps. Complete with removable socket plate that accommodates practically all tubes in use today. (7-pin, octal, loctal, 7- and 9-pin noval, Novar, Compactron, Nuvistors, 10-pin "headers.") Red leatherette portable case in size: 16¾"x11¾"x7½". Panel is gold anodized. For 105-125 VAC, 60 cycles, 40 watts. Shpg. wt.: 21 lbs.

62F171. NET **239.50**

TV COLOR SCOPE

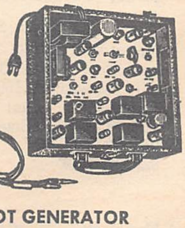


Model 675A. Wide band 5" screen has astigmatic focus. Vertical response ±3 db from 1 cps to 4.5 mc. Pulse response, rise time of .08 microsec. 20 mv rms per inch sensitivity. Freq. compensated vertical attenuator. Trace reversal switch. Horiz. amp flat 1 cps. to 450 kc ±3 db, with sensitivity of 250 mv rms per inch 105-125 v, 50-400 cps. AC. 13x10x16". 43 lbs.

62F137. NET **299.90**

62F172. Type 35 Crystal demodulator probe for above. **NET** **7.75**

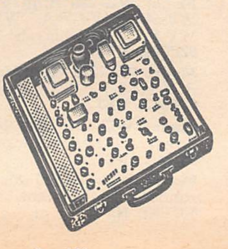
WHITE-DOT AND COLOR DISPLAY GENERATOR



Model 660. Lightweight, portable generator, especially designed for home service calls. All frequencies generated are crystal-controlled; locked together for extreme stability. Provides white crosshatch, white dot pattern, and color display pattern of orange, red, magenta, blue, cyan and green. 0-4 v video output. .001-.05 v RF out. 105-125 v, 60 cyc. AC. Black art leather 10½x10½x5¼". Shpg. wt., 21 lbs.

62F175. NET **245.00**

NTSC STANDARD COLOR BAR AND DOT GENERATOR

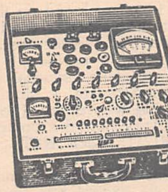


Model 656XC. Crystal controlled 100% fully saturated generator produces the type of signal transmitted over the air. Generates 3 primaries, 3 complements, plus black and white. Also R-Y; G-Y and B-Y signals. Switching for Y or chroma. Outputs: RF or Video bar pattern; video 0-2 volts peak to peak. Black leatherette case. Size: 16¾x18⅜x7½". 115 volts, 60 cycles. Shpg. wt., 42 lbs.

62F138. NET **549.50**

HICKOK TEST EQUIPMENT

NEW PORTABLE LAB TUBE TESTER



Model 539C. Industrial and laboratory portable Gm tube tester. Tube sockets: 4, 5, 6, 7-pin, octal, loctal, 7, 9, and 10-pin miniature, Compactron, Novar, 5 and 7-pin Nuvistor. Socket savers provided for 7 and 9-pin and octal. Gm ranges: 60,000; 30,000; 15,000; 6000; 3000; 600 micromhos. Rectifier diode and VR ranges. Inter-element leakage indicated on meter or neon lamp, sensitivity: 50 megohms. Test voltages: filament, 0-117 VAC in 20 steps; signal, 0.25, 0.5, 1, 2.5 RMS; plate, 66 and 150 VDC; screen, 56 and 130 VDC; fixed bias variable 0 to —40 VDC. Self bias terminals on panel. Roll chart has data for latest industrial and entertainment tubes. Three 1% accuracy Hickok meters: Gm, VR voltage and leakage; line voltage; two range bias meter. Size: 16¾Wx18⅜Lx7½"D. For 105/125 VAC, 50/400 cps, 40 watts. Shpg. wt., 33 lbs.

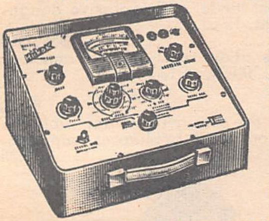
62F133. NET...**485.00**

HICKOK ADAPTER

Model CA-4. Adapter for testing compactrons, 10-pin "headers," 9-novars and Nuvistors. For use with all current Hickok manual tube testers. Wt., 6 lbs.

62F101. NET..............................**49.50**

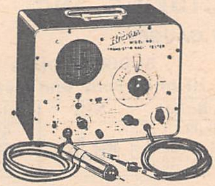
DYNAMIC BETA IN CIRCUIT TRANSISTOR TESTER



Model 890. Unique circuit measures AC Beta with equal accuracy in or out of circuit. Measures parameters: AC Beta; Rin (transistor input resistance); Z Ohms (base-emitter circuit impedance); Ic. Measures AC Beta, Ic and Icbo out-of-circuit. In-circuit AC Beta measurement accuracy ±5% (150 ohms minimum circuit impedance). Portable and completely self-contained. Utilizes an AC bridge principle. Useful for incoming inspection of transistorized products and sub-assemblies. Beta Ranges: 0-50, 0-100, 0-200. Furnished complete with test cable. AC Test Signal: Variable 1000 cps sine wave-Calibration setting at 5 ua, 100 mv, protected against overload. Comes in steel portable carrying case. 6½"H, 9"D, 10¾"W. Shpg. Wt., 7¾ lbs.

62F102. NET...**137.50**

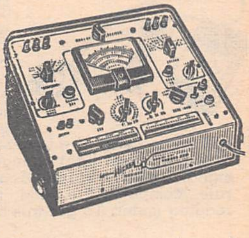
ONE PIECE SERVICE LAB



Model 810. Designed with all the features for complete trouble-shooting. 200KC to 575KC tuned receiver for correcting IF stages. 550KC to 1600KC tuned receiver for correcting RF stages. Audio amplifier for tracing audio stages. Provided with loud speaker for signal tracing. 200KC to 575KC AM generator is used for IF alignment. 550KC to 1600KC AM generator is used for RF alignment. 400 cycles audio output is of low impedance for audio signal injection. Transistor test circuit for checking transistors, leakage, and gain, with external VOM AM generator, 2-band radio, and transistor tester . . . all in one package. Power input required: 105-125 volts, 50-70 cycles, 20 watts. Lightweight portable steel case with aluminum panel. Complete with probe and leads. 11¼x9x7". Shpg. wt., 16 lbs.

62F187. Model 810. **NET**...**138.50**

PORTABLE TRANSISTOR TESTER

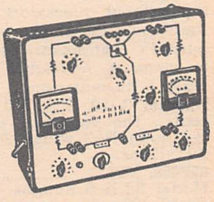


Model 870. Features two units in one. Measures large signal DC Beta on power transistors as well as small signal AC Beta on low and medium power transistors. Has variable collector voltage. Collector test current is variable up to 2 amps, permitting Beta measurements on power transistors rated at 5 amps or more. Provides low voltage, high current tests which makes it excellent for switching transistors. Controls provide maximum set-up flexibility combined with speed-engineered layout for volume testing of transistors. Includes roll chart giving test data for over 1500 transistors. Large easy to read panel meter. Tech. Spec: Beta ranges 0-100 & 0-300, extendable to 600. Beta test collector voltage variable from 0-5 volts. Accuracy within 5% for both AC & DC Beta. Requirements—115 volts AC, 40 watts. Size: 7⅞x10½x14½". Shpg. wt., 18 lbs.

62F149. NET...**355.00**

TRANSISTOR ANALYZER

- **Test Transistors in Operation**
- **Highly Accurate Indicating Meters**



Model 850P. Provides evaluations of a transistor to determine its ability to function under a specific circuit condition. Highly accurate indicating meters, within ±2% of full scale. Checks power transistors with collector currents of up to 500 MA. An excellent aid in demonstrating transistor theory in technical educational schools. Panel selector quickly sets operator's choice of circuit-use conditions to detect suitability of transistor to operate from signal sources of varying impedances. Can be used as "breadboard" to build up amps, oscillators, and a curve tracer. Checks parameters in 3 configurations. Common base, common emitter, and common collector. Battery operated. Portable case with aluminum panel. Size: 8x16½x13½". Shpg. wt., 22 lbs.

62F186. Model 850P. **NET**...**169.50**

TUBE-TRANSISTOR TESTER

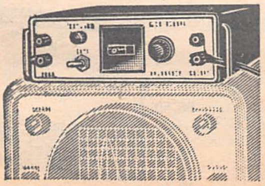
Model 800. Checks leakage between tube elements up to 10 megohms. Includes transistor and diode check. Filament continuity test is provided to greatly speed the testing of series-string tubes. Push button reverses meter for testing special tubes such as the 117N7 types. Tube sockets for 4, 5, 6, 7-pin, octal, loctal, noval and 7-pin miniature are included. Circuits test tubes under simulated operation conditions. 0-3,000, 6,000, 15,000, micromhos are directly indicated on the meter dial. Calibrated Gm circuit provides increased accuracy in testing the latest tubes. Selector control on panel permits a reserve capacity test to evaluate the reserve strength of a tube under test. Time saving tube reference chart contains test data for all popular tubes in a new, faster-to-use group system. Power supply 105-120 volts AC, 50-70 cycles, 40 watts. Portable case covered red leatherette with brass colored hardware, panel is gold anodized aluminum with red and black lettering. Size: 16¾x11¾x7½". Shpg. Wt., 21 lbs.

62F182. NET...**179.50**

TEXAS INSTRUMENTS

TUNNEL DIODE CURVE TRACER

- **Can test any Tunnel Diode on the market.**
- **Includes sensitive calibrated precision potentiometer**



Model 530-B. Allows the study of the forward characteristics of the full range of tunnel diodes currently manufactured. It allows, through the use of changeable jigs, the study of tunnel diodes which utilize many different package configurations. It is the only curve tracer available that can test the curve characteristics of every tunnel diode now on the market. When connected to any sensitive oscilloscope, the current and voltage wave forms are created on the scope face. By the use of this instrument alone, eight of the ten principle parameters can be measured on the 'scope. A calibrated precision potentiometer is provided eliminating the need for expensive auxiliary equipment. It allows display of complete negative resistance region and is capable of measuring tunnel diodes of extremely low capacitance. Stabilizes diodes up to 50 ma. Sensitivity: 5 mv/-ma. The calibrated potentiometer reads negative resistance from 1 to 1000 ohms. Can be panel mounted and is applicable for use in production operations. Size: 2½"h., 7½"W., 10"d.

21FX5623. NET...**197.00**

Model 530-A. Same as above except that it does not have the calibrated potentiometer.

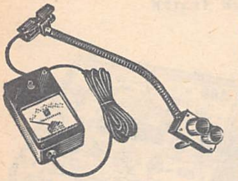
21FX5624. NET...**165.00**

Newark Can Supply the Latest Hickok Test Equipment

ELECTRONIC INSTRUMENTS

PIONEER

● NEW PHOTO TACHOMETERS



Model 12. New Pioneer Photo Tachometer. Directly measures speeds from 0-12,000 RPM for all types of rotating and reciprocating machinery—lathes, drills, presses, wheels, drives. Powered by mercury cells so that no external power source is required and no electrical or mechanical connections to equipment tested is necessary. A tiny but extremely accurate photoelectric cell is the heart of this remarkable tachometer. The cell responds to the slightest light change on a rotating object, transmitting a signal to a pulse triggered computer. The latter counts light change rate, computes the RPM, then projects the figures of a direct reading meter. To get this light change, a contrasting chalk mark or tape is placed on the rotating part. The contrast is important, not the color, as the instrument senses only the reflection difference. For greater accuracy in aiming the tachometer a miniature lamp bulb projects a light beam on the "target." This is also a convenient source of light for applications where illumination is inadequate. A single button operates the tachometer. Pressed all the way down, it operates both the computer and light beam; halfway, just the computer, 8½x4¾x3¾". Shpg. wt. 1 lb.
62F1211. Each NET **99.50**

Model 12R. New Pioneer SNORKEL Photo Tachometer. Same as above except has photocell mounted on 15" flexible cable with magnet and 12' cord to remote reading meter. For dangerous and inaccessible places. 8½x4¾x3¾". Av. Shpg. wt. 3½ lbs.
62F1212. Each NET **150.00**

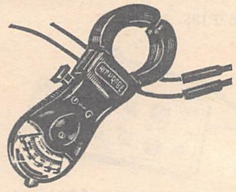
PYRAMID INSTRUMENTS

AC AMPROBE SNAPAROUND

Model RS-3. 9 Ranges. The original pocket-sized snap-around volt-ammeter-ohmmeter. Amprobe's an ammeter—measures current instantly and accurately without shut-downs or ammeter connections. Amprobe's a voltmeter—you can get an accurate voltage reading without guesswork or doubt. Amprobe's an ohmmeter—this all purpose instrument permits you to measure resistance the easy way. 5 current ranges: 0-5, 15, 40, 100, 300 amps. 3 voltage ranges: 0-150, 300, 600 V. 1 ohmmeter range: 25 ohms mid-scale. The Amprobe affords the user complete protection. 7/32" long 2⅝" wide, 1 11/32" thick. With case and leads. Shpg. wt., 12 oz.
62F658. NET **52.50**

Model RS-1. 6 Ranges. Amprobe with 4 ammeter ranges: 0-5, 15, 40, 100 amps. 2 voltage ranges: 0-150, 600V.
62F659. NET **39.85**

AC WIDE-RANGE AMPROBE AMMETER-VOLTMETER



Model 600. 9 Ranges. This versatile Amprobe features a rugged impact proof plastic case. Probe jaws are completely insulated down to the sockets. Eliminates danger of shorts. Pocket size and light weight. Perfect for the hard-to-get-at-wires. One hand operation means more convenience. 6 ammeter ranges: 0-15, 0-30, 0-60, 0-150, 0-300, 0-600 amps. Three voltage ranges: 0-150, 300, 600 V. Size: 2⅝" wide, 8½" long, 1¼" thick. Includes top-grain cowhide leather case, voltage test leads, and exclusive dough-nut type xformer. Shipping weight, 15 oz.
62F664. NET **59.50**

Model 1200. 9 Ranges. Same as above unit, except ammeter ranges: 0-15, 0-60, 0-150, 0-300, 0-600, 0-1200 amps; voltage ranges, 0-150, 0-300, 0-600 V.
62F665. NET **67.50**

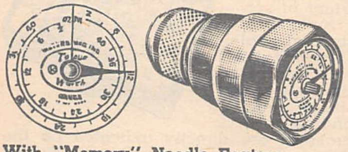
62F660. A-45 Energizer. Multiplies the sensitivity of any Amprobe ten times—for precise readings on small appliances and fractional horsepower motors. **NET** **3.75**

NEW AMPROBE CABLE TRACER

Model CT-10. With this instrument cable tracing need no longer be a two-man job. A new concept lets one man trace up to ten conductors simultaneously. Ideal for use in communication systems where multi-conductor cables are commonplace. There is no needless handling of wires to locate a conductor. Every time the Indicator Button is pushed you identify a circuit. And you do it without extra trips between cable ends. Because it eliminates the necessity for a helper and cuts the no. of trips necessary to trace an installation, it can pay for itself after only one job! Perfect for tracing wiring systems in factories, offices, homes, cars, aircraft, ships, and anywhere electrical equipment is used. Can test cable up to 1600 feet long. Self-powered by a 1.5v. mercury battery. Durable high-impact case. Complete with cowhide leather carrying case, 10 station markers, 2 station marker holders and 3 alligator clip test leads. Size: 5½x 2⅝x1⅜".
62F669. NET **39.50**

WATERS MANUFACTURING, INC.

TORQUE WATCH GAUGES



With "Memory" Needle Feature
Can't be beat for reading accurate torque measurements of potentiometers, variable condensers, servo mechanisms, elliptical spring mechanisms, dials, tuning mechanisms, gear trains, etc. Reads starting or slow moving torque directly . . . instantly! Hexagon shape insures firm grip, prevents rolling! Unbreakable recessed crystal **Accuracy within ±5% full scale!** Size: 1⅝" across flats (1⅝" dia. on round models) 3 3/16" long (min.). Weight, only 7 oz. Finished in anodized aluminum. Memory Needle feature "remembers" highest torque applied, permits measurements to be taken in dark. Reads torque in ounce-inches.

BI-DIRECTIONAL MODELS
(Flatted Body and Memory Needle)

Stock No.	Type	Range	NET	Stock No.	Type	Range	NET
62F1521	651C-1	0.05- 1.2	89.50	62F1532	651X-2	0.1 - 2.4	99.50
62F1522	651C-2	1.0 -20.0		62F1533	651X-3	0.25- 5.0	
62F1523	651C-3	2.0 -40.0		62F1534	651X-4	0.5 -10.0	

UNI-DIRECTIONAL MODELS
(Round Body—No Memory Needle)

CLOCKWISE				COUNTER-CLOCKWISE			
Stock No.	Type	Range	NET	Stock No.	Type	Range	NET
62F1500	6000B-1	0.01- 1.2	49.50	62F1502	6000B-3	0.01- 1.2	49.50
62F1501	6000B-2	1.0 -20.0	49.50	62F1503	6000B-4	1.0 -20.0	49.50

Newark keeps pace with all new developments in the field
of test equipment and is the first to
feature such items.

WESTON

PORTABLE/PANEL MULTI-RANGE INSTRUMENTS

Models 911 & 912. Moderately priced, multirange instrument, although designed as a portable instrument, is easily converted to panel or switchboard mounting. Features CORMAG self-shielding mechanism, with spring back jewels. Large, easy to read 7.2" mirroback scale with maximum natural illumination. Employs long-life components, including VAMISTOR precision metal film resistors. Accuracy: ±1% of full scale on DC Voltmeters (±2% of FS on 300 and 1000 volts DC) ±2% of full scale value on rectifier type AC voltmeters (±3% on 1000 volt range). Heavy duty, grey finished steel case. Front-clear plastic. 7½x6½x2⅜".

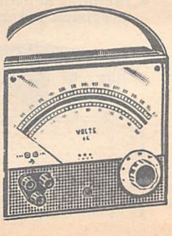
Model 911 DC Voltmeter. Range: 1/3/10/30/100/300/1000 V @ 20,000 ohms/V.
62F1229. NET **68.50**

Model 911 DC Ammeter. 1/3/10 amps, 10/30/100/300 milliamps.
62F1230. NET **68.50**

Model 911 DC Milliammeter. .1/.3/1/3/10/30/100 milliamps.
62F1231. NET **68.50**

Model 912 AC Voltmeter. Range: 3/10/30/100/300/1000 V @ 5000 ohms/V.
62F1232. NET **78.50**

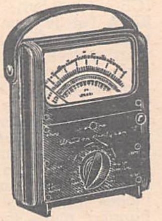
Model 912 AC Rectifier Ammeter. Range 5/2/1/0.5/0.2/0.1/0.05 amps. **62F1225. NET** **78.50**

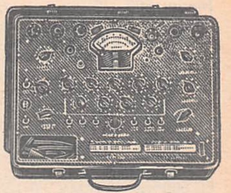


WESTON PORTABLE METERS

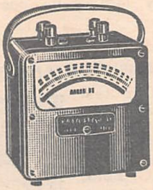
WESTON PORTABLE TEST METERS FOR INDUSTRY

Model 980 Mark II Analyzer. 20,000 ohm/dcv volt-ohm-amp meter. Accuracy 2% dc, 3% ac. Ranges: ACV 1.6, 8, 40, 160, 400, 1600 at 1000 ohms/v. DCV 1.6, 8, 40, 160, 400, 800, 4000 at 20,000 ohm/v. DC ma 1.6, 8, 80, 800. DB —15 to +54 (in six ranges). DC Amps: 8 DC Mics: 80. Ohms: 5 decade ranges 1K to 10 meg full scale—25 ohms to 250K center scale. Black impact resistant plastic case. Size: 7⁹⁄₁₆x6¼x3". Shpg. wt., 3 lbs.
62F476. NET **53.50**
Combination cover and stand, stores all test leads.
62F1142. NET **5.50**





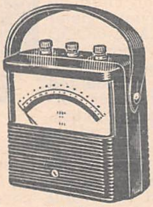
Model 981. (Type 3-A) Proportional Mutual Conductance Tubechecker. For industrial, laboratory, and general testing of receiving tubes, voltage regulator tubes and low power thyratron tubes. Meter measurements of leakage resistance up to 5 megohms between tube elements. Filament voltages: from 0.6-115 volts. Plate voltages: 90, 130, 220 VDC; 22, 44, 160 VAC. Grid Bias: 0-5V, 0-20 volts DC. Signal voltages: 0.65 to 5.2. Transconductance ranges: up to 30,000 micromhos. Multiple switching facilities, comparison of twin section tubes. Roll index chart. Gray steel case. 17½x13¼x6". 30 watts. 100-125 volts, 60 cycles AC. Shipping weight, 23½ lbs.
62F479. NET **311.75**



Model 931. Compact, light weight and accurate (within 0.5 of 1%). Hand calibrated mirror scale and knife-edge pointer. Self shielded permanent magnet moving coil type. Scale length, 4.04". Black bakelite case with handle. Size: 5½ x 5 x 3¼". Shpg. wt., 4 lbs.

DC VOLTMETERS—1000 ohms/volt

Stock No.	Range	Scale Div.	NET
62F1100	150/15/3	150	**101.25**
62F431	750/300/150	150	**101.25**
5000 ohms/volt			
62F1121	75/30/7.5	150	**112.75**
62F1132	300/150/3	150	**112.75**
62F1122	750/300/150	150	**112.75**
DC AMMETERS			
62F1133	10/5/1	100	**101.50**
62F432	30/15/3	150	**101.50**
62F1145	50/25/10	100	**101.50**
DC MILLIAMMETERS			
62F1134	15/1.5/0.15	150	**110.50**
62F1102	150/15/1.5	150	**98.75**
62F435	1500/150/15	150	**98.75**
62F1101	3000/300/30	150	**98.75**



Models 901 & 904

Model 901. Features a curved, shadow reducing, wide angle window that is non-breakable and specially treated against electrostatic effects. Self-shielded permanent magnet moving coil type. Accurate within 0.25 of 1%. Has 5½" hand calibrated mirror scale and knife edge pointer. Size: 7½x3¼x3⅝". Shpg. wt., 5 lbs.

DC VOLTMETER—5000 ohms/volt.

Stock No.	Range	Scale Div.	NET
62F1136	750/300/150/75/30/15/3	150	**182.25**
DC MILLIAMMETERS			
62F1146	1000/500/200/100/50/20/10	100	**172.25**
62F1147	100/50/20/10/5/2/1	100	**172.25**

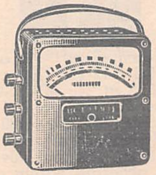
Model 904. Same as Model 901, except 0.5 of 1% accuracy, Radial vane, Moving Iron type.

AC VOLTMETERS. Stnd. Freq. 50-450 cps.

Stock No.	Range	Scale Div.	NET
62F1143	750/300/150/75/30/15/7.5/3	150	**247.50**
AC AMMETERS. Std. Freq. 25-1000 cps.			
62F1149	50/20/10/5/2/1	100	**215.50**

LIGHT MEASURING INSTRUMENTS

Model 703. Type 7 Sightmeter. Handy pocket-size sightmeter for industrial and office use. Pocket size for convenience in using and carrying. Will function accurately in any position. Range is 0 to 100 foot candles (with Viscor and cosine correction filters). 4⅝x2⅝x1⁵⁄₁₆". Wt. 1 lb.
62F467. NET **63.75**
Model 703-3A. As above, but 0.75 foot-candles and unfiltered.
62F1124. NET 48.50
Model 9959. Handsome leather carrying case for the above. Sturdy and practical.
62F1125. NET 3.00
Model 9924. Multiplier disk (x10). Extends range to 10 times normal full scale value. Not usable with cosine corrected instruments.
62F1137. NET **1.75**



Model 433. Self-shielded permanent magnet moving iron type. Accurate within 0.75 of 1%. 5½" mirror scale and knife edge pointer. 7½ x 3¼ x 3⅝". Shpg. wt. 5 lbs.

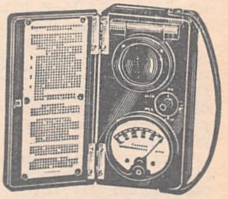
AC AMMETERS. Stand. Freq. 25-500 cps.

Stk. No.	Range	Scale Div.	NET
62F436	5	100	**89.25**
62F437	10/5	100	**102.25**
62F438	10/5/1	100	**1[illegible]0.25**
62F1131	30/7.5/3	150	**140.25**
AC VOLTMETERS. Stnd. Freq. 25-125 cps.			
62F439	150	150	**94.25**
62F1126	150/15	150	**95.75**
62F1105	150/75	150	**95.75**
62F441	300/150	150	**95.75**
62F442	600/300/150	150	**112.25**
AC MILLIAMMET'S. Std. Freq. 25-500 cps.			
62F1106	300/150	150	**100.25**
62F1129	500/250	100	**100.25**

POCKET CLAMP AC VOLT-AMMETER

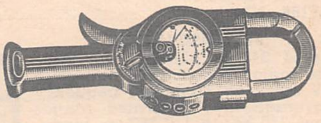
Model 749. Measures AC current and voltage without breaking circuit. Accommodates conductors up to 1" round or 1¾x⅜" rectangular. Features: core magnet shock mounted mechanism with spring back jewels; large smooth action trigger, shatter-proof wraparound plastic window; bright red pointer for easy reading; positive action range selector switch. AC Voltage ranges 0-150, 300, and 600; Current ranges, 0-6, 15, 30, 60, 150 and 300 amperes. Fully insulated for 750 V service. Bakelite case. With carrying case, voltage test leads with insulated battery clips. Shpg. wt., 2½ lbs.
62F481. NET **51.50**
62F482. Type 9886. Plug in adapter for above 5.25

LIGHT METER



Model 614 Foot-Candle Meter. A highly competent precision instrument that is recommended for commercial lighting surveys and any measurements requiring a wide range of light values. Any type of commercial lighting can be measured directly with this compact Foot-Candle Meter. Ranges are selected through the operation of a conveniently located range-changing switch. The photo-electric (Photronic) cell is mounted on a hinge, so that it will pick up measurements from a wall or ceiling without unnecessary moving of the meter. Three ranges: 0 to 100 foot-candles, 0 to 250 foot-candles, and 0 to 500 foot-candles; each with a separate scale. With Viscor and cosine correction filters. Entirely self-contained in a sturdy bakelite case, equipped with a hinged cover and leather carrying strap. 7¾x3⅜x2¼". Wt. 2 lbs.
62F474. NET **136.25**

AC CLAMP VOLT-AMP METERS & AMP METERS



Model 633. Ideal maintenance tool for on-the-job testing. Measures AC current through any given conductor (up to 2" diameter) without breaking the circuit. Can even be hung on conductor, leaving operator's hands free for other work. Big safety-type trigger is designed for glove or bare-hand operation. Fast, well-damped movement provides quick readings with accuracy within 3%. Insulated for 750-volt service . . . clamping jaw insulators are replaceable rubber. 1⅝x4¾x2½". Shipping weight, 4½ lbs.
62F1111. Type A-1. 500-250-100-50-25-10 amps. **NET** **133.50**

62F1112. Type A-2. 1000-500-250-100-25-10 amps. **NET** **133.50**

62F1113. Type A-3. 2000-1000-500-250-100-50 amps. **NET** **133.50**

Type VA-1. 1000-250-100-25-10 amps. 700-250-175 volts.
62F1118. NET **141.50**

LEATHER CARRYING CASE for any above unit.
62F1119. NET **13.50**

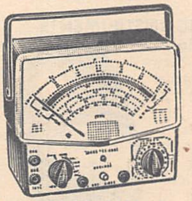
TRIPLETT TEST EQUIPMENT

LABORATORY VOM WITH 7" MIRROR SCALE

Model 800. 70 ranges with 1½% DC accuracy to 1200 volts! Overload protection of meter fused; temperature and frequency compensated. DC volt range: 0-.240-0.6-3-12-60-300-1200-6000 at 10,000 ohms per volt. 0-.120-0.3-1.5-6-30-150-600-3000 at 20,000 ohms per volt. AC volts: 0-3-12-60-60-300-1200-6000 at 5,000 ohms per volt. 0-1.5-6-30-150-600-3000 at 10,000 ohms per volt. DB —30 to +70 in 12 ranges. DC Microamperes: 0-60-600 at 120 MV. 0-120 at 240 MV. DC Milliamperes: 0-6-60-600 at 120 MV. 0-1.2-12-120-1200 at 240 MV. DC Amperes: 0-6 at 120 MV. 0-12 at 240 MV. Ohms: 0.1K-10K-100K (4.4-44-440 at center scale). Megohms: 0.1-10-100 (4400-44,000-440,000 Ohms center scale.) Spring backed jewels and high flux magnet for increased ruggedness . . . self-shielded for checking strong magnetic fields. Heavy molded plastic case, 7½x6¼x3⅞". Completely insulated. Weight 4 lbs.

62F291. NET...**89.50**

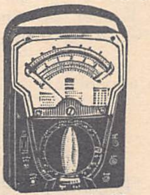
VACUUM TUBE VOLTMETER



Model 850. Unit has 8 DC volt ranges: 0-.5-1.5-5-15-50-150-500-1500. 7 AC RMS volt ranges: 0-1.5-5-15-50-150-500-1500. 7 peak-to-peak volt ranges: 0-4-14-40-140-400-1400-4000. 7 resistance ranges: 0-1000-10,000-100,000 ohms. 1-10-100-1000 megohms. Frequency ranges: 15 cps to 3 MC. Input impedance· DC volts 11 megohms; AC volts minimum of .83 megohms. Etched aluminum panel, plus large easy to read meter with shatter-proof window. Fixed ground lead to chassis insures good grounding of circuit under test. Molded black plastic case is completely insulated. Size: 7⅝x6$\frac{7}{16}$x3¾". Tube complement: (1) 12AU7, (1) 6ALS. Meter is connected in cathode circuit on the 12AU7 for better stability of the instrument. Wt., 5 lbs.

62F290. NET...**79.50**

SUPER 70-RANGE VOM



Model 630-NA. Has 70 ranges. Mirror scale. Firm, double wiping contacts. Banana plugs for best low resistance contacts for test leads. Ranges: DC volts: 0-0.240-0.6-3-12-60-300-1200-6000 at 10,000 ohms/volt; 0-0.120-0.3-1.5-6-30-150-600-3000 at 20,000 ohms/volt; AC volts: 0-3-12-60-300-1200-6000 at 5000 ohms/volt; 0-1.5-6-30-150-600-3000 at 10,000 ohms/volt. Frequency compensation from 40 cps to 20 kc to 300 V. DC Microamperes: 0-120 at 240 MV; 0-6-60-600 at 120 MV. Milliamperes: 0-1.2-12-120-1200 at 240 MV; 0-6-60-600 at 120 MV. DC amperes: 0-12 at 240 MV; 0-6 at 120 MV. Decibels: —20 to +77 in 12 ranges. Ohms: 0-1K-10K-100K (4.4-44-400 at center scale). Megohms: 0-1-10-100 (4400-44,000-440,000 ohms center scale). Output: Condenser in series with AC volt ranges. AC and DC accuracy: 1½% DC to 1200v. 3% AC to 1200v. Temperature compensation: accurate within a wide range of ambient temperatures. 5½" meter, 4½" scale at top arc. Black case: 3$\frac{11}{32}$"x5½"x7½". Shpg. wt., 4 lbs.

62F228. NET...**79.50**

Model 630-NS. As above except 20,000 Ω/V DC and 20,000 Ω/V AC. 64 ranges.

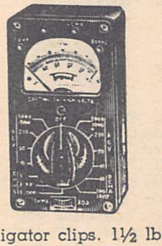
62F168. NET...**99.50**

TEST OSCILLATOR

Model 3432A. Shielded for AM-FM radio, monochrome and color TV servicing. Complete frequency coverage in 7-calibrated ranges from 160 KC to 110 MC on fundamentals (220 MC using harmonics) with no skips. Circuit selector provides internally modulated signal variable from 0 to 100% at 400 cycles; variable amplitude of external modulation 40 to 15,000 cycles; unmodulated signal and variable audio at 400 cycles. Cathode follower output. 3-position step type attenuator for R-F selection. Easy to read etched aluminum dial. Black baked enamel case, 15$\frac{11}{32}$x11$\frac{1}{32}$x6¼". For 115 volts, 50-60 cycles AC. Shpg. wt., 12 lbs.

62F200. NET...**109.50**

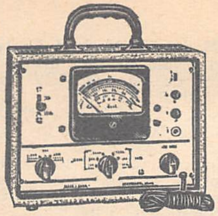
COMPACT VOM



Model 666-R. Pocket size VOM featuring 1,000 ohms-per-volt sensitivity on both AC and DC voltage ranges. Uses only two controls in all—the single range switch and the ohms adjust control. Has flush-mounted 3" microammeter. Scale, 2$\frac{9}{32}$" long at top arc. Ranges: DC and AC volts, 0-10-50-250-1,000-5,000 at 1,000 ohms per volt; DC ma. 0-10-100; DC amps, 0-1; ohms, 0-3,000-300,000; megs, 0-3. Insulated, black molded case, 3$\frac{1}{16}$x5⅞x2$\frac{9}{16}$". Complete with batteries, test leads, banana plugs, and alligator clips. 1½ lbs.

62F209. NET...**32.50**

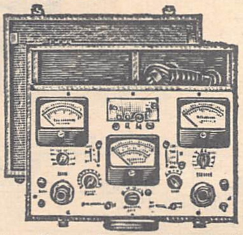
POWER AND SIGNAL TRANSISTOR TESTER



Model 2590. Tests Power Type Transistors under SIMULATED OPERATING CONDITIONS. Provides for testing ICEO (at 9.5v.); ICBO (at 9.5v.) and BETA (at 3v.) on both NPN and PNP transistors. Checks leakage and forward currents of Diodes. The panel of etched heavy gauge aluminum has natural finish with black and red markings and trim. The indicating instrument is a microammeter with five scales in black and red and green. Top scale arc is 4.04 inches long. Connectors—Transistor socket; also three separately colored banana-type jacks for connection to transistor with leads provided. The leads are 26 inches long. Test prods with small alligator clips at one end. Banana plugs for connecting to tester jacks at the other end. SCALES—0-1 MA for Signal Transistor ICEO; 0-100 MA for Power Transistor ICEO; 0-500 UA for Signal Transistor ICBO; 0-1 MA for Power Transistor ICBO; 5-100 Beta Range. Power, 115 volts, 50-60 cycle. AC. Gray leatherette case 11⅝x8⅝x5⅛". Shpg. Wt., 9 lbs.

62F289. NET...**54.50**

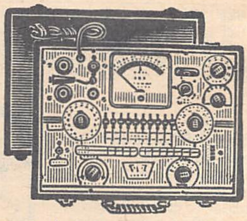
TRANSISTOR ANALYZER



Model 3490. Designed to test all types of PNP and NPN transistors. Analyses both power and signal types. Tests: Tetrode (using separate power supply), D.C. Beta, A.C. Beta, ICEO Leakage, ICO Leakage, Punch thru, Saturation, Floating, Potential, and Alpha. Provisions for many different parameters. Common base or emitter configuration. Interlocked warning lights. Input current meter reads emitter or base current at all times. Additionally, unit provides continuous current and voltage control. Hi-power silicon full wave rectifiers deliver up to 10 Amp DC collector current and 1 Amp input current. Size: 15$\frac{7}{16}$x18$\frac{13}{16}$x8". Gray leatherette case with removable cover. Etched aluminum panel. Heat Sink—copper bar. Fused. Meters: 2 0-20 ua, 1 0-50 ua Model 420. Accuracy ±2%. Shpg. wt., 27 lbs.

62F202. NET...**399.50**

FLEXIBLE TUBE TESTER



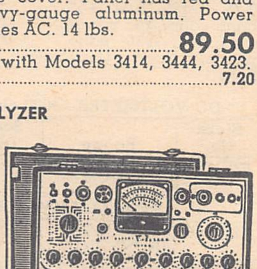
Model 3414. Designed to provide rapid, easy, and accurate testing. Rejects burned out tubes without waiting for the filament to heat. Full range filament voltages from 0.65V to 117V in 23 steps. Quick-change roll chart included. Large, clear-view meter has three color REPLACE-GOOD scale. Provides new neon indicator shorts test. The new revised circuit provides a modified plate conductance for closer correlation to tube characteristics. Permits observation and adjustment for line fluctuations, thereby insuring greater test accuracy. Sockets: 8 prong octal, 8 prong loctal, 7 prong miniature, 9 pin subminiature. Case is wood, covered in dark gray leatherette. 15⅞x11½x6½" size with hinged removable cover. Panel has red and black markings etched on heavy-gauge aluminum. Power input required: 117 volts, 50-60 cycles AC. 14 lbs.

62F206. NET...**89.50**

BV Adapter for picture tube tests with Models 3414, 3444, 3423.

62F214. NET...**7.20**

TUBE ANALYZER



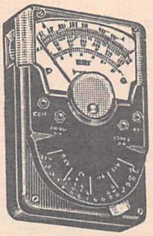
Model 3444. Measures true Gm without extra compensating factors using proper value DC electrode potentials 5 KC-AC signal source and a vacuum tube microammeter. Has socket and chart set-up for nuvistor type tubes. Low 33-ohm plate impedance. Plots tube characteristic curve, contains noise test jacks. Will check gas under actual operating conditions. Filtered DC short and leakage measurement from 0 to 10 megohms at 85 volts. Direct reading Gm ranges: 1,000, 3,000, 10,000 and 30,000 micromhos. Signal potentials @ 5 KC: 1.000, 0.333, 0.100 and 0.033 volt. 5 and 50 ma DC plate current ranges. Roll chart included. Leatherette cover, 15$\frac{3}{16}$x18$\frac{13}{16}$x7¾". Power input required: 117V AC, 50-60 cps. 27 lbs.

62F274. NET...**279.50**

ADDITIONAL 10% DISCOUNT ON ALL ABOVE EQUIPMENT IN LOTS OF 10 ASSORTED.

TRIPLETT TEST EQUIPMENT

HAND-SIZE VOM
20,000 OHMS/VOLT DC SCALE



- **Self-shielded for checking in magnetic fields.**
- **Unbreakable plastic meter window.**

Model 310. Complete miniature VOM . . . with selector range switch! Interchangeable test prod fits into tester top, becoming common probe and freeing one of your hands for other work. Self-shielded for use in magnetic field. Unbreakable plastic meter window. Rugged, high torque, bar-ring instrument. Standard sensitivity, 20,000 ohms per volt dc and 5,000 ohms per volt ac. Accuracy, 3% dc. Ranges: vdc—0-3-12-60-300-1200; vac—0-3-12-60-300-1200; ohms—0-20,000-200,000; megohms: 0-2-20; dc ua.: 0-600 at 250 mv.; dc ma. 0-6-60-600 at 250 mv. Leads, batteries, and manual. Molded, fully insul. case, 2¾x4¼x1 5/16". Approx. 14 oz. w. batteries.
62F230. NET **37.50**

Model 310-C. Same as model 310, but has 15,000 ohms per volt on AC. Lever range switch, reversing switch for DC. Range switch fully enclosed. 14 oz.
62F292. NET **44.50**
62F231. No. 369. Carrying case for above. **NET** **3.20**

AC CLAMP-ON AMMETER ADAPTER FOR 310 VOM

Model 10

Model 101

Model 10. Clamp on Ammeter fits around single conductor or bus bar to check all line loads instantly, accurately, safely—without breaking circuit or interrupting load. Ideal for checking wiring circuits, motor loads, appliance loads, etc. Reads ac amperage direct in six steps: 0-6-12-30-60-120-300. Easily attached to model 310, with attachments below can be used with any VOM having 3-VAC scale at 5000 ohms. Complete with hardware and short connecting lead.
62F235. NET **15.50**

No. 611. Long lead attachment for using Model 10 as clamp-on ammeter with any VOM having a 3-volt AC scale at 5,000 ohms per volt, such as 630, 630-A, 630-NA, 630-PL, 630-APL, 631, etc.
63F236. NET **2.10**

No. 311. Long lead to separate No. 10 from No. 310 for easy reading in awkward spots.
62F237. NET **2.10**

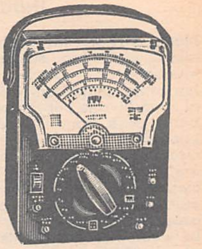
No. 101. Line Separator dividing 2 conductor cords and increasing No. 10 sensitivity 10X & 20X.
62F238. NET **6.00**

Model 379. Carrying case for No. 310 and No. 10 in combination.
62F239. NET **6.00**

VOM AND CLAMP-ON AMMETER SET

Model 100. Complete set includes Model 310 VOM, Model 10 Clamp-on Ammeter Adapter, Model 101 Line Separator, Model 379 Leather Case, and Model 311 Leads.
62F249. NET **64.50**

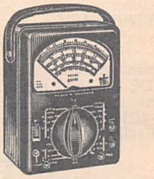
DE LUXE, EASY-TO-READ VOMS!



Model 630-PL. Volt-Ohm-Milliammeter Instant vision, wider spread scales. Outstanding linear ohm scale; low reading 0.1 ohm; high to 100 megs. One switch selects any range; reduces wrong settings, burnouts. AC freq. response: 5-500,000 cps. DC polarity reversing switch. High sensitivity., Ranges — VDC: 0-2.5-10-50-250-1000-5000 at 20,000 ohms/V; VAC: 0-3-10-50-250-1000-5000 at 5000 ohms/V; DB: —20 to +11, +21, +35, +49, +61, +75; "O" DB at 1 MW on 600-ohm line; DCuA: 0-100 at 250 MV. DC MA: 0-10-100-1000 at 250 MV; DC Amp.: 0-10 at 250 MV; ohms: 0-1000-10,000 (4.4-44 at ctr. scale); megohms: 0-1-100 (4400-440,000 at ctr. scale); VAC output: 0-3-10-50-250-1000 at 5000 ohms/V, jack w. condenser in series with AC ranges. Case-molded fully insul. 3 11/32x5½x7½". Leads, alligator clips, rubber feet, batteries, operating manual., 4½ lbs.
62F241. NET **49.50**

Model 630-APL. Volt-Ohm-Milliammeter. As above except lab. type featuring ½% resistors, mirrored scales.
62F242. NET **59.50**

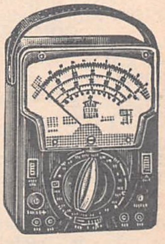
VOLT-OHM-MILLIAMMETER



Model 630. Reads DC volts to 6,000 in six ranges at 20,000 ohms/volt. AC volts in corresponding ranges at 5,000 ohms-per-volt. DC current ranges are: 0-60 microamperes, 0-1.2-12-120 mils, 0-12 amps. Measures ohms 0-1,000-10,000, and megohms 0-1-100. Also reads db from —20 to +77 in six ranges. One switch selects any range. 5½" meter; 50 microamp movement. Resistors are precision wire-wound or carbon film. With batteries and test leads. Tough molded plastic case. 3 7/32x5½x7½". Shpg. wt., 4½ lbs.
62F212. NET **49.50**

Deluxe Model 630-A. Laboratory version of Model 630 VOM above. Has same ranges and sensitivity, but comes equipped with 4⅜" mirror scale and knife-edge pointer to eliminate parallax error. ½% resistors for greater accuracy.
62F211. NET **59.50**

VTVM AND VOM TEST METER



Model 631. Two fundamental units at the price of a single tester. Combines wide range testing facilities of 2 testers in one compact unit. Molded compartment houses resistors, rectifier, etc. By using VOM for general testing, and VTVM when needed, the unit makes a VTVM with long battery life. 5½" meter. Adjusted to 50 microamperes at 250 MV. Has good temperature compensation. VOM ranges AC-DC volts: 0-3-12-60-300-1200 at 20,000 ohms/volt DC, 5,000 ohms/volt AC. Micro-amps 0-60 at 250 MV; DC Milliamperes: 0-1.2-12-120-1200 at 250 MV. DC ampere ranges: 0-12 at 250 MV. DB ranges: —20, +11, +23, +37, +21, +63; Ohms: 0-1500-15000; Megohms: 0-1.5-150; Output Condenser in series with AC volts: VTVM ranges-DC volts 0-1.2-6-30-120. One switch for various ranges, another 2-position switch for VTVM or VOM. With 2-22½ volt Burgess leads. Alligator clips, rubber feet, and instruction manual. Shipping weight, 4 lbs.
62F227. NET **69.50**

TRIPLETT CARRYING CASES AND REPLACEMENT LEADS

Model 639-N

Model 659

Model 669

Model 639. Black cowhide leather case. Space for tester and accessories. For Models 630, 630-A, 630-NA, 630-PL, 630-APL, and 631.
62F213. NET **9.90**

Model 639-P. Same as 639, but lined with ⅜" sponge rubber padding for maximum protection of tester.
62F234. NET **14.90**

Model 639-N. Black Leather case with center cover flaps, permits complete access to tester without removal from case. For Models 630, 630-A, 630-NA, 631, 630-PL, 630-APL, and 630-T.
62F233. NET **9.90**

Model 669. Black leather case with strap handle, space for tester, leads, accessories. For 666-R and 666-HH.
62F210. NET **6.90**

Model 629. Black cowhide leather case with strap handle. For Models 625-NA, 660, 661, and 690-A.
62F222. NET **7.20**

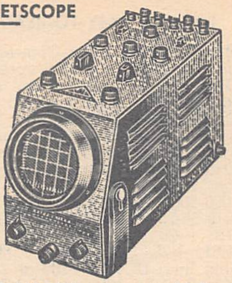
T-79-127. Rubber replacement leads for Models 630, 630-A, 666-HH, 666-R, 625-NA, 630-PL, 630-APL, and 631.
62F245. NET **2.10**

T-79A-153. Replacement leads for Model 310.
62F246. NET **2.10**

Additional 10% Discount on all above Test Equipment in Lots of 10 Assorted

WATERMAN TEST EQUIPMENT

INDUSTRIAL POCKETSCOPE



Model S-11-A. 3MP Cathode ray tube, offers such big scope features as identical DC coupled vertical and horizontal amplifiers with sensitivities of 50 millivolts per major division and band pass from DC to beyond 200 kilocycles. Extremely useful for many circuits using thyratrons and rectifiers. Recurrent sweeps cover from 3 cycles to 50 kilocycles. Special circuitry isolates case from the signal ground permitting viewing of signals between two hot points without fear of electrical shock or short circuit failure. Power input required: 105-125 volts, 50-400 cycles. Case size: 7x5x11". Shipping wt.: 10 lbs.

62F1600. NET **149.50**

HI-GAIN POCKETSCOPE

Model S-14-A. Uses 3RP series cathode ray tubes in conjunction with its DC amplifier band pass (extending beyond 200 kc). Ideal for observations of DC control circuitry, any power frequency. Vertical and horizontal amplifiers are identical. Has relatively drift free, high sensitivity (5 mv per major division). Sweeps from ½ cycle to 50 kc. Operates repetitive or triggered for portraying recurrent or random signals. Power input required: 105-125 volts, 50-400 cycles. Case is 7"x6"x12". Shipping wt.: 17 lbs.

62F1601. NET **249.00**

WIDE BAND POCKETSCOPE

Model S-14-B. A three-inch (3RP series) oscilloscope offering a DC to IMC signal amplifier with a 25 mv per major division sensitivity. Sweeps 50 kc. Power input required: 105-125 volts, 50-400 cycles. Case size 7x6x12". Shpg. wt., 17 lbs.

62F1602. NET **239.00**

COMPUTER POCKETSCOPE

- **Detailed Trace Examination**
- **Major Div. Trace Deflection at Levels as Low as 33 MV.**

Model S-14-C. Can display information from all types of electromechanical devices. Signals that are generated by relays, transducers, and complex electronic computers at levels as low as 35 millivolts deflect the trace a major division. Band width is DC to 700 KC ±2 DB. An available amplifier-probe (Model A-11-D) extends its sensitivity to 3.5 mv. Data lasting as long as 2 seconds to as short as 20 microseconds occupies the full screen. Five times the magnification of the sweep permits detailed examination of any portion of the trace on the 3RP type cathode ray tube. Power input required: 105-125 volts, 50-400 cycles. Case size: 7x6x12". Shipping weight: 19 lbs.

62F1603. NET including A110-C probe **289.00**

COMBINATION AND AMPLIFIER PROBES

Model A-10-A. Combination probe for use with S-14-A, S-14-B, and S-15-A.

62F1607. NET **19.90**

Model A-10-B. Combination probe for S-16-A.

62F1608. NET **9.95**

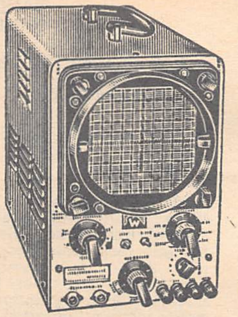
Model A-11-D. Amplifier probe for S-14-C.

62F1609. NET **39.90**

62F1619. Model A-10-C Comb. probe for S-14-C.................... **19.90**

62F1620. Model A-10-H Comb. probe for S-17-A.................... **11.95**

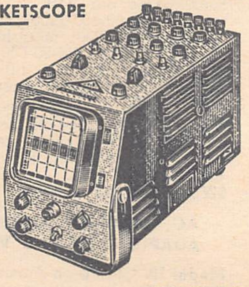
TV AND HI-FI CRAFTSCOPE



Model S-16-A. Literally packed with a score of years-ahead features that make it a great advance in oscilloscope design! 5" face wide band. "Parade" control permits detailed examination of signal trouble spots. Engineering type edge-lit 10 x 10 cm graph screen. Tube is flat faced 5BTP1 type . . . only 12" long. Signal amplifier: Band width DC to 7 mc within 2 db at color burst. Sensitivity: 100 millivolts peak-to-peak per cm. Dials calibrated in volts peak-to-peak per cm for "voltmeter" type amplitude measurements. Includes Model A-J0-B Probe. Size: 7x10x12". Operates on 105-125 volts, 50-400 cycles at 65 watts. Shpg. wt., 20 lbs.

62F1605. NET **245.00**

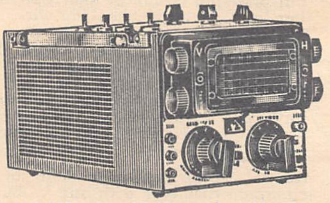
TWIN TUBE POCKETSCOPE



Model S-15-A. Two rectangular 3SP series cathode ray tubes with individual signal inputs and controls which permit simultaneous observation of any two voltages with respect to a common time base. No larger than the typical electronic switch or a dual beam cathode ray tube. The signal amplifiers have sensitivities of 5 mv per major division. Common time base operates from ½ cycle to 50 kc in either the recurrent or triggered modes. Power input required: 105-125 volts, 50-400 cycles. Case size: 7x6x12". Shipping weight, 19 lbs.

62F1604. NET **399.00**

DIRECT READING POCKETSCOPE HI-GAIN



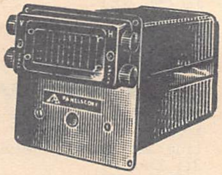
Model S-17-A. Uses ultrashort 3YP series cathode ray tube. The signal amplifier has a sensitivity of 10 millivolts band width DC to 200 kc. Horizontal amplifier has a sensitivity of 400 millivolts peak-to-peak per division and band pass of 3 cycles to 80 kc. Case size: 4¾x5¼x10". Power input required: 105-125 volts, 50-400 cycles, 40 watts. Shpg. Wt., 10 lbs.

62F1606. NET including A-10-H probe **295.00**

CARRYING CASES

Stk. No.	Model	For Pocketscope Model	Net
62F1623	A-20-A	S-11-A	11.95
62F1624	A-20-B	S-14-A, B, C, S-15-A	11.95
62F1625	A-20-C	S-17-A	11.95

PANELSCOPES



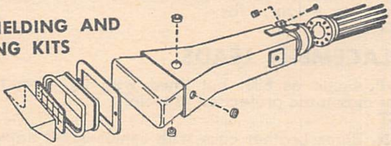
Model P100. Complete with rectangular cathode ray tube, mu metal shield, and high voltage and filament supplies for the CRT and pilot lamps. Additional feature include a low voltage positioning supply, wired centering controls, and capacitively coupled deflection networks. Case size: 5¼x5$\frac{5}{16}$x10". Power input required: 105-125 volts AC, 60-400 cycles, 10 watts. Shipping weight, 6 pounds.

62F1621. NET **129.50**

Model P1. Same as above, but has unwired centering controls and unwired leads from the CRT deflection plates for direct connection to added amplifiers.

62F1622. NET **109.50**

TUBE SHIELDING AND MOUNTING KITS



These are complete shielding and mounting kits used for any of the more popular 3 and 5 inch cathode ray tubes. Kits have magnetic shield, socket, mountings, escutcheons, hardware, and even green and orange graph screens.

Stk. No.	Type	Use with	NET
62F1610	A-18-C	3SP, 3AHP	23.90
62F1611	A-18-J	3RP, 3AQP	23.90
62F1612	A-18-K	Two 3SP or 3AHP	23.90
62F1613	A-18-L	3XP	26.90
62F1614	A-18-M	3MP	23.90
62F1615	A-18-R	3JP	39.90
62F1616	A-18-T	Two 3XP	26.90
62F1617	A-18-V	3YP	23.90
62F1618	*A-18-W	5BTP	19.90

*Shield only

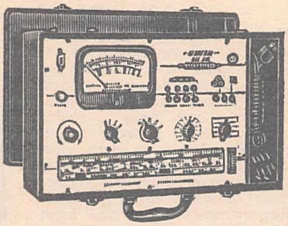
PRIMER SCOPE MARK I

An oscilloscope designed for applications where portability and simplicity coupled with high performance are required. Ideal for the electronic enthusiast and service man. Circuit design features include vertical and horizontal amplifiers, AC and DC amplifiers, hard tube variable sweep circuits, internal and external positive and synchronization, and retrace blanking over the entire sweep range. Provisions included to convert to direct deflection for mod. monitoring. Specifications: Vertical; 1V peak to peak per inch, DC to 75KC. 25 mv RMS per inch, 20 to 75KC. Sweep: 20 cps to 20KC cont. variable in three steps, hard tube, repetitive. Sync.: Sync amplified, internal and external. Horizantal: 1.5V peak to peak per inch, DC to 75KC. Modulation: Convertible to modulation monitoring. Enclosed in rugged Navy gray steel case. Size: 3½x7x10". Shpg. wt. 8 lbs.

62F1627. NET **89.95**

PRECISION APPARATUS TEST EQUIPMENT

TRANSISTOR AND CRYSTAL DIODE TESTER



Model 960. A handy piece of test equipment which is complete; no batteries: powered by built-in AC actuated pow. supp. Uses 5½", 100 microampere sensitivity meter. Meter reads Icbo directly in terms of collector current. 5 ranges cover all types of transistors. low, medium and high power. Collector potentials from .5 volts DC to 100 volts DC in 17 steps., Employs five separate injection currents for all types. Provisions for checking emitter to collector leakage current. 17 selected DC voltages for reverse current test of crystal diodes. Also provides separate forward tests. All transistor test settings listed on high speed roller chart. Complete with carrying case with accessory compartment. 18''x10½''x6¼''. Wt. 15 lbs.

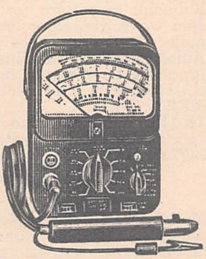
62F287. NET **107.75**

● *NEW* PRECISION SWEEP SIGNAL GENERATOR WITH MARKER-ADDER

Model E410. For FM-TV visual alignment. Freq. coverage — 5 fundamental ranges 3-213 mc. Sweep width — continuously variable from 0-30 mc. Output impedance — 50 ohms. Automatically eliminates retrace. Corrects phase shift between RF output and scope horizontal output. Marker adder — front panel controls width and size. Fixed frequency marker — external crystal. External marker — permits use of external RF generator as marker generator. Attenuation — continuously variable to control sweep width and vertical scope pattern. Course and fine RF output. Crystal oscillator supplies accurate markers (4.5 mc crystal included), built in marker permits a clear display of marker pips with no distortion of the response curve. 13x8½x7. Shipping weight, 15 lbs.

62F280. NET **159.95**

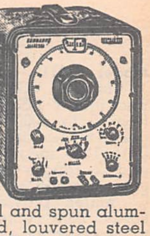
PRECISION PEAK TO PEAK LAB TYPE VTVM



Model 88. This popular instrument features 7 functions, 40 ranges, and 26⅔ meg input. 6 Peak to Peak Voltage ranges especially engineered for accuracy on pulsed and TV wave form: 4-3.2-16-32-160-800-3200 volts. 6 true zero center DC voltage ranges. 0-1.2-6-12-60-300-1200V. Resistance to 1000 megs. Uses 5¼'' wide angle PACE meter., In compact custom molded phenolic case: with detachable 115 VAC line cord, internal ohmmeter battery. 3-way coaxial VTVM probe, and detailed operating manual. Size 5⅜x7x3⅛''. The perfect instrument where high accuracy and low cost are desired. Shpg. Wt. 6 lbs.

62F284. NET 88.15

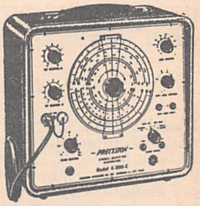
WIDE RANGE AUDIO GENERATOR



Model E-310. Unit provides both sine and square wave output over the complete range of 5 cycles to 600 kilocycles. Plus or minus 1% direct reading accuracy. Distortion less than 1% at 10 volts into 600 ohms. 6" Diameter tuning dial with 12 to 1 drive ratio. Provides an effective scale length of 85 inches over the 5 bands. The range of this fine instrument makes it a valuable aid to the serviceman. Brushed satin aluminum panel and spun aluminum tuning dial. Heavy gauge, custom-styled, louvered steel case with fine dull blue-grey ripple finish. Wt. 21 lbs., 115 VAC.

62F286. NET **195.95**

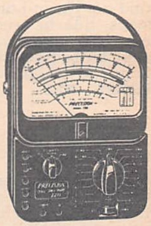
SIGNAL MARKER GENERATOR



Deluxe Model E-200-C. Excellent for use with high quality sweep signal generators. Frequency Range: 88 KC to 440 MC, 110 MC on fundamental. Large 6½'' dial for direct readings in 10 bands to 440 MC. Accuracy: 1% on all bands. 0-1000 Vernier Scale gives direct reading to one part in 1000. 400 cycle sine wave oscillator has 75 volts output. Dual RF attenuators provide smooth stepless control of RF signal. Generates unmodulated RF, 400 cycle modulated RF, externally modulated RF, and 400 cycle audio output. Direct reading variable modulation control 0-100%. Built-in AGC bias system. Custom-styled. Size: 11½x13x6⅝''. Wt., 17 lbs, 117 VAC.

62F276. NET **107.75**

PRECISION LAB TYPE VOM TEST SET



Model 120. Provides more ranges. Including an extra-low resistance range, and an extended low current range. Now incorporates mirrored scale. Large easy-to-read 5¼" meter. Ranges: AC-DC-Output volts, 0-1.2-3-12-60-300-600-1200-6000, 20,000 ohms/volt DC, 5000 ohms/volt AC. Has DC polarity reversing switch and new wide frequency response on AC voltage ranges. DC Current Ranges: 0-60-30 μa, 0-1.2-12-120- 600 ma., 0-12 amp. Resistance Ranges 0-200-2000-200,000 ohms, 0-2-20 megohms. Decibel Ranges: —20 to +77 db. Only 2 plug jacks serve all standard ranges. Safety position on selector protects meter. With Batteries, test leads. 5⅜x7x3⅛". Shpg. wt., 5 lbs.

62F275. NET **44.05**

Model 120M. Same high quality instrument as above but with ½% multipliers and 1% meter, for high accuracy readings.

62F285. NET **54.83**

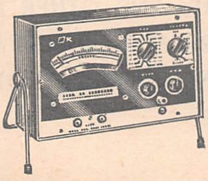
B & K DYNA-QUIK TEST INSTRUMENTS

NEW DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER

Model 700. Up-to-date, professional instrument. Provides multiple socket selection to quick check most TV and radio tubes. Simplified switch selection to check new type in Dyna-Quik emission circuit. Includes provisions for future new sockets. Tests all types of tubes including: European types, Volt, reg., industrial, 10-pin types, Nuvistors, 12-pin compactrons, etc. Automatic compensation for line Voltage variation. 4½" meter with ''Replace-Good'' scale. Lists common tube types on socket panel. Complete reference chart in cover. Phosphor-bronze contacts. 7, 9, and 10 pin straighteners on panel. Leatherette covered carrying case. 117 volts, 50-60 cyc. AC. Size: 16⅛x15¾x5⅞". Shpg. wt., 15½ lbs.

62F571. NET **166.55**

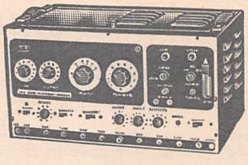
DYNAMIC AUTOMATIC VTVM



Model 375. Provides quick, error free readings. Individual full-size scale for each range, automatically set by the range switch. Only one scale visible simplifies reading of peak to peak voltages of complex wave forms. Single AC-DC ohms probe, anti-parallax mirror and study swivel stand. Ranges: DC volts, AC volts (rms) AC volts (Peak to peak): 0-1.5, 5, 15, 50, 150, 500, 1500 volts. DC current: 0-5, 50, 500 ma. Ohms: 0-500 ohms, 5K, 50K, 500K, 5 megs. 50 megs, 1000 megs. Inp. res.: 11 megs. ±3% F.S. accuracy. 100 vamp. sens. Grey metal case. Size: 10¾x6¾x4". Shpg. wt., 8 lbs.

62F572. NET **88.15**

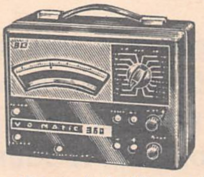
TV ANALYST



Model 1076. Television analyst for black & white and color. Pinpoints TV troubles in ½ the time through easy point-to-point signal injection. All these signals are instantaneously available on the front panel: R.F. and L.F.; Video; Sync; Audio; Color; Grid Drive; Plate Drive; Yoke Test; B+ Boost Indicator; High-Voltage Indicator; High-Voltage Transformer Test. Supplied complete with standard test pattern, white dot, white line crosshatch, and color bar pattern slide transparencies and one clear acetate. Complete with cables. Operates on 110-120 volts, 60 cycle a.c. 36 lbs.

62F555. NET **293.95**

42 RANGE AUTOMATIC VOM



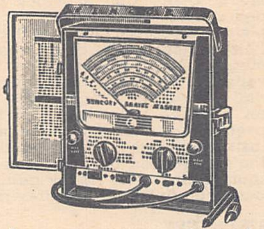
Model 360. Features individual scale for each range. Only one scale visible at any time. DC Sens.: 20,000 ohms per volt; AC Sens: 5000 ohms per volt. Has 18 separate external overlay meter scales for additional ranges. Ranges: DC & AC V: 0-3, 15, 60, 300, 1000, 6000 V; AF (Out) 0-3, 15, 60, 300 Volts. DC cur.: 0-100 ua, 5 ma, 500 ma, 10 amps; Resis.: 0-1K, 10K, 1 meg., 100 megs; Cap.: 100 mmfd to 4 mfd. (3 ranges); Audio Pwr. out.: up to 56 w., 4, 8, 16 ohm load. (7 ranges). DBM; —20 dbm to +62 dbmb in 5 ranges. (0 db-1 mw across 600 ohm load). P to P VAC (Sine wv.) 0-170, 850; Freq. Resp.: 5-500,000 cps. With 1½ and 9V batts, and test leads. Black bakelite case. 6½x8⅜x4¼". 4 lbs.

62F581. NET **58.75**

62F582. LG8. Leather carrying case for above. **NET** 11.71

SENCORE TEST EQUIPMENT

COMBINATION VTVM AND VOM



Model SM112. Combination VTVM and VOM in one compact unit. 6 AC and DC ranges from 0 to 1000 volts on both units. 6 resistance ranges from 0 to 1000 megohms on VTVM and 2 ranges on VOM. One easy reading scale and a 2% 6" meter provides lab type specs. Zero center scale, peak to peak voltage measurements and automatic scale indication on VTVM. 2—115VAC outlets to provide power to unit under test. 1 permanent test probe to do every job for both VOM and VTVM, even fits high voltage probe to save time connecting and disconnecting leads. Steel case has storage space and easy grip handle. With battery. Size: 8⅛x7⅝x3½". Shpg. wt. 8 lbs.
62F731. NET **78.35**

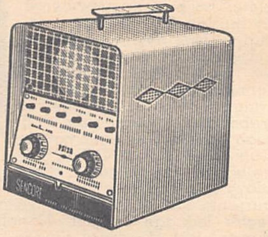
"MIGHTY MITE" TUBE TESTER

Model TC-114. Will test every radio and TV tube that you encounter including the 12 pin compactron, 9 pin novar, 5 pin nuvistor and 10 pin miniature. Ideal for the service man who wants to eliminate unnecessary call-backs. Checks over 2000 tubes for cathode emission, grid emission, leakage, shorts and gassiness. Easy to carry, low priced, versatile. Features meter that glows in the dark for easy reading behind TV set, stainless steel mirror in cover for TV adjustments, all steel carrying case and easy-grip handle. Control-grid leakage sensitivity is over 100 megs. due to sensitive 0.1 milliampere moving-coil meter. Uses one 6C4 tube, one N-2 neon bulb, selenium rectifier and #51 pilot bulb. Size: 10¼"x9¼"x3½". For 110-125 VAC. 50-60 cycles. Shipping weight, 9¼ pounds with carrying case.
62F427. NET **73.01**

SUBSTITUTION UNIT

Model RC121. Complete range of carbon resistors, capacitors, electrolytics and rectifiers for on-the-spot substitution. Used for servicing, engineering and experimenting. Contains: CARBON RESISTORS: 12 resistors 1 watt from 10 ohms to 5600 ohms. 12 resistors ½ watt from 10K to 5.6 megohms. POWER RESISTORS: 20 wire wound—20 watts from 2.5 to 15,000 ohms. CAPACITORS: 10 at 60 volts from 100 mmfd. to 0.5 mfd. RECTIFIERS: Universal Selenium—0.5 amps—800 PIV and Universal Silicon 0.5 amps—800 PIV. ELECTROLYTICS: 10 dual electrolytics at 450 VDC which can be used as singles or tied together for double capacity. Each section can be used independently. Complete with 4 test leads. Wrinkle gray steel cabinet. Shpg. wt. 32 lbs.
62F732. NET **39.15**

3" WIDE BAND OSCILLOSCOPE

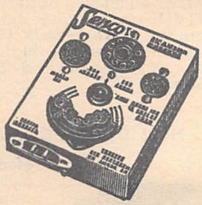


Model PS120. Portable, broad band 3" scope designed for lab or field work. Suitable for color TV, remote audio, organ installations and computers. Easy to use, only 2 major controls. New forward thrust design creates its own shadow mask. Full width calibrated graph increases sharpness of wave form patterns. Reproduces any wave form from 20cy to 12 megacycles. New automatic range indicator on vertical input control enables direct reading of peak to peak voltages. Standby position on power switch adds hours of life to CRT and other tubes. Vertical Amplifier Freq. Response: flat within ½ db from 20 cy to 5.5 mc., down —3 db at 7.5 mc, usable up to 12 mc. Horizontal Amplifier Freq. Response: flat within —3 db from 45 to 330 kc, flat within —6 db from 200 to 500 kc. Freq. Range: 4 ranges, 15 cy to 150 kc. Sync Range: 15 cy to 8 mc, usable to 12 mc. Power consumption: 82 watts on position, 10 watts standby position. Power source: 105/125 VAC, 50-60 cy. Gray steel case with chromed steel carrying handle. Size: 7x9x11¼". Shpg. wt. 15 lbs.
62F733. Factory wired and tested. NET **122.01**
Model PS120K. As above but kit form.
62F734. NET 73.01

TRANSI-MASTER TRANSISTOR CIRCUIT ANALYZER

Model TR-110. A complete transistor tester, signal tracer, voltmeter, battery tester and milliammeter. Analyzes every transistor circuit trouble. Transistors are tested in circuit with AC Gain check and out of circuit with DC Gain and Leakage check. Reads current gain (beta) directly for experimental engineering work and for matching transistors. Checks diodes with forward to backward ratio check. Signal traces complete circuit with harmonic generator for RF-IF and sine wave generator for audio circuits. Checks batteries and voltage dividers with 12 volt scale. Automatically determines PNP or NPN. Complete with list of Japanese equivalents, mirror, probes, batteries and current check clip. Two-tone gray steel case. Size: 8x7⅝x3". Wt., 7 lbs.
62F497. NET **58.31**
TR-115. Transistor-Diode Checker. Same features as TR-110 except checks only transistors and diodes.
62F735. NET 24.45

TUBE CHECKER



Model FC-123. Replaces FC-4. Checks all octals, loctals, 7 and 9 pin miniatures, novar, nuvistors, 10-pin and compactron tubes automatically. Provides check on line cord before testing tubes. Checks continuity and voltage when leads are inserted into pins 1 and 12 of TV tube socket. With leads. Shpg. weight, 1½ lbs.
62F736. NET **3.87**

CLAROSTAT TEST EQUIPMENT

POWER RESISTOR DECADE

Type 240C. This handy power resistor box permits changing resistance values in a working circuit at the flip of a switch. This is an instrument that no lab, shop, or serviceman can afford to be without. Saves time and work in developing new circuits where some values are unknown. Ideal for checking voltage regulation of power supplies, since load can be varied over a wide range. Handles any value from 1-999,999 ohms in steps of 1 ohm. Power rating is 225 watts. Maximum voltage should not exceed 1,000 VDC, or 660 VAC. Housed in ventilated metal cabinet. Size: 13" x 8½" x 5¾". Shipping weight, 11 pounds.
62F730. NET **110.00**

INDUSTRIAL BUYERS, SPECIFYING ENGINEERS, AND OTHER USERS OF ELECTRONIC EQUIPMENT, YOU CAN DEPEND ON NEWARK FOR LOWEST PRICES, FASTEST SERVICE AND GUARANTEED DELIVERY FROM AN INVENTORY OF OVER 70,000 ITEMS. MAKE NEWARK YOUR ONE POINT SOURCE.

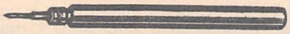
TEST LEADS PRODS AND PATCH CORDS

H. H. SMITH LEADS

ALL-PURPOSE TEST LEAD KIT

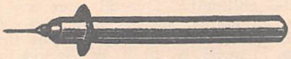
Type 610. 48" of 5000 volt heavy duty rubber covered test lead wire. Plastic handles with solderless prods. Other end supplied with standard #204 banana plugs which are interchangeable with the phone tips, alligator clips, or spade lugs which are supplied. Shpg. wt., 6 oz.
35F929. NET **1.76**
Type 611. With needle tip prods.
35F837. NET 1.76

SOLDERLESS TEST PROD— THREADED TYPE



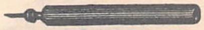
Type 302. Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled nut provided. Brass, nickel plated tip with Red or Black molded plastic handle. Specify color. 4" handle. Shpg. wt., 3 oz.
35F930. NET **29c**

R.F. TEST PROBE



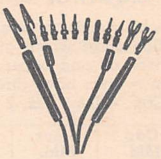
Type 630. Heavy insulated fibre probe. Large inside diameter enables use of coax cable or 1N-34 crystal for R.F. Probes. Heavy duty removable tip. Shpg. wt., 3 oz.
35F931. NET **70c**

PHONO NEEDLE TEST PRODS



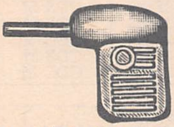
Type 318. Brass, nickel plated body with steel nickel plated needle. Removable chuck for replacing broken needles. Red or Black machined handle. 5½" long, ⅜" dia. Wt., 3 oz.
35F906. BLACK. NET **32c**
35F907. RED. NET .... .32
Type 317. As above with red or black molded plastic handle. 4¹³⁄₁₆" long, ⅜" dia. Wt., 3 oz.
35F939. Black. NET .... .29
35F940. Red. NET .... .29

UNIVERSAL TEST LEADS



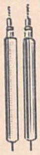
Fifty leads in one! One lead can make any required test lead combination. All parts adapt into prod handle or tip handle. Shpg. wt., 3 oz.
39F887. No. 699 .... 2.35

MOLDED METER TIP PLUG



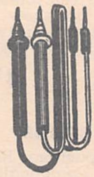
Type 235. Molded meter type plug molded in two halves for easy assembling with screw and nut. Brass nickel plated tip fits in all standard tip jacks. Available in Red and Black. New styling is attractive and facilitates easy handling.
39F964. BLACK. NET **26c**
39F963. RED. NET, Each .... .26
10 for .... 2.40 100 for 22.00

SOLDERLESS TIP TEST LEADS



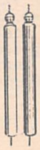
Plastic handles colored red and black. 4" long, ⅜" diameter. Flexible kinkless rubber covered wire leads 50" long also colored red and black. Shpg. wt. 3 oz.
39F872. No. 600. Phone tips 85c
39F873. No. 601. Spade lugs 85c
39F874. No. 602. Alligator clips .. 91c

HIGH TENSION TEST LEADS



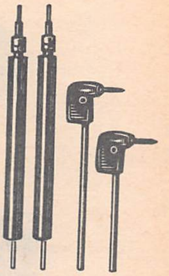
Sturdy attractive test leads with heavy duty probes, and 48" of quality high tension kinkless test lead wire. Fibre handles. Test lead wire is heavy type with .248 outside diameter. Voltage breakdown is 22,000V. Shpg. wt., 3 oz.
35F928. Type 620. With Phono Tips. NET **1.94**
35F941. Type 622. With Alligator Clips. NET 2.35

PHONO NEEDLE TEST LEADS



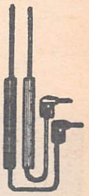
Plastic handles colored red and black, 4" long x ⅜" diameter. Tips are very sharp phonograph needles. Flexible kinkless rubber covered wires 50" long also colored red and black. Shpg. wt. 3 oz.
39F875. No. 613. Phone tips 85c
39F876. No. 614. Spade lugs 85c
39F877. No. 615. Alligator clips 91c

METER TIP TEST LEAD



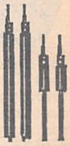
Test leads with 50" of rubber covered kinkless test lead wire. Molded plastic fingergrip tips on one end and 4" plastic test prod handles on other end. Supplied in two types: solderless tip or needle tip prod handles.
35F932. 625 Solderless Prods. per pr. **1.32**
35F933. 626 Needle Tip Prods, per pr. 1.32

"SLIM JIM" TEST LEADS



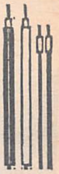
Type 698. Long slim probes, fully insulated with vinyl tubing to prevent shock or shorting. Perfect for those hard to get at spots. Supplied with molded meter tip ends and 50" rubber coated kinkless lead wire. Shpg. wt., 5 oz.
35F934. NET **1.12**

SOLDERLESS TEST LEADS



Type 603. The insulated handles and insulated plugs are both of the solderless type construction. Flexible kinkless rubber covered leads are 50" long. This type offers convenience at a low price, in addition to safety. Shpg. wt., 5 oz.
35F936. NET **1.23**

SLIM HANDLE TEST LEADS

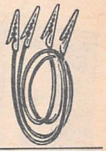


Type 670. Slim red and black tenite handles only 5⁄16" O.D. with solder type phone tips on other end. Flexible, kinkless rubber covered wire 50" long. An extremely sturdy, but low cost serviceable and safe pair of leads. Shpg. wt., 5 oz.
35F937. NET .... **.65**

SUB MINIATURE TEST LEAD

Type 678. Fibre handles colored red and black with O.D. only ¼", with insulated tips. Flexible, kinkless rubber covered wire only 50" long. Threaded phone tips. Perfect for testing in cramped space. Shpg. wt., 4 oz.
35F938. NET **1.23**

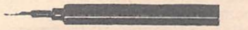
ALLIGATOR CLIP TEST LEAD PAIR



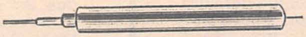
Heavy duty test lead wire with Cadmium plated steel alligator clips on both ends. Prices are per pair. Average shpg. wt. 4 oz.

Stk. No.	Type	Length	NET
35F942	604	12"	.55
35F943	605	24"	.61
35F944	606	36"	.70
35F945	607	48"	.79

HEAVY DUTY TEST PRODS



Model 319. This threaded type prod has a large diameter well which will enable soldering of heavy duty wire directly into plug. Body is nickel plated brass The handle is made of 4" molded plastic. The overall size is 5³⁄₁₆". Shpg. wt., 3 oz.
35F908. Red. NET .... .29
35F909. Black. NET .... .29



Model 329. A threaded type prod with a large diameter well to enable soldering of heavy duty wire directly into plug. Body is nickel plated brass. Handle is 5½" machined plastic. Overall size is 6¹¹⁄₁₆". Shipping weight 4 oz.
35F842. Red. NET .... .12 ea.—11.84/C
35F843. Black. NET .... .12 ea.—11.84/C

EXPANDO

● NEW EXPANDO ADAPTER

EXPANDO ADAPTER
EXPANDO METER CO
RANGE
20-32 V. DC
MODEL
S 260

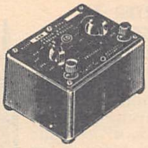
- Easy conversion
- Damage-Proof
- With stands overloads
- Resists shocks
- Greater accuracy

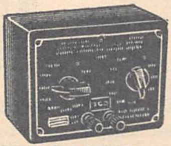
Now you can expand the range of your VOM through the use of Expandos range entendors. Converts most VOM to more accurate ranges. Example: divides meter scale from 100 to 125 Volts from previous reading of 0 to 150 volt scale. Simply plug adapter into existing outlets on the VOM and plug probe leads into the adapter—then read a more accurate scale of values.

*Adpaters are pre calibrated within ±1% of true value. Available in 7 models for true resolution and reliability for your existing VOM'S. 1½" dia. x 1" H.
EXPANDO ADAPTERS converts the following models: Triplett, Simpson Weston and Precision. Without re-calibration or special adjustments or re-wiring to the existing Volt/Ohm/Meter.

Stk. No.	Type	Description	Range	Each
35F100	630	Triplett DC	20-32±1%	19.95
35F101	630	Triplett AC	100-130±1%	
35F102	310	Triplett DC	20-32±1%	
35F103	310	Triplett AC	100-130±1%	
35F104	260SIII	Simpson DC	20-30±1%	
35F105	260SIII	Simpson AC	100-125±1%	
35F106	269	Simpson DC	20-28±1%	
35F107	269	Simpson AC	100-140±1%	

CORNELL-DUBILIER TEST EQUIPMENT


Model CD


Model RDA

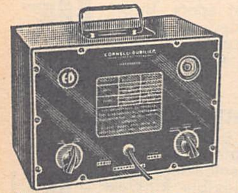
C-D CAPACITOR AND RESISTOR DECADES

Accurate standards for checking resistors ana capacitors, or for substitution. Capacity units are furnished with calibration chart which gives exact values. Rated at 600-V. DC, 220-V. AC. All may be used to check oil and paper condensers except 62F642, which checks only micas. 3¾x5x3½". Resistance units have direct-reading panel switches, select 110 values, are 3⅝x5x3". Shpg. wt.: Cap. 4 lbs., Res. 2 lbs. Tol.: * ±5%, † ±3%

Stock No.	Model	Cap Mfd.	Steps Mfd.	1-24	25-49	50-99	100-up
62F642	CDA-5*	0.011	0.0001	14.20	13.20	11.95	11.05
62F643	CDB-5*	1.1	.01	14.20	13.20	11.95	11.05
62F644	CDC-5*	10.0	1.0	24.65	22.55	20.50	19.10
62F645	CDB-3†	1.1	.01	16.35	14.95	13.75	12.65
62F646	CDC-3†	10.0	1.0	27.25	25.95	22.90	21.10

Stock No.	Model	Res. Ohms	Steps Ohm	1-24	25-49	50-99	100-up
62F655	RDA	1-110	1	15.35	14.05	12.90	11.90
62F656	RDB	100-11K	100	15.65	14.30	13.15	12.15
62F654	RDC	10K-1 meg	10K	15.65	14.30	13.15	12.15

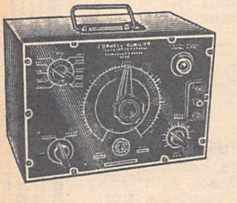
C-D CAPACITOR CHECKER



Model BF-90. Unusual instrument by Cornell-Dubilier checks all capacitors in the set . . . without removing them from the circuit! Saves hours of time sleuthing an intermittent! Finds bad units that are open, shorted, or intermittent in operation. Will check capacitor accurately, even though it is in parallel with a 50-ohm resistance. Handles all units from 30 mmf to 2000 mfd through a 60-cycle circuit that incorporates a "magic eye" indicator to show short-circuited and intermittent capacitors. Housed in sturdy portable metal case, 5½x7x10". For operation from 115V, 60-cycle AC only. Shipping weight, 8 lbs.

62F657. NET........ **41.75**

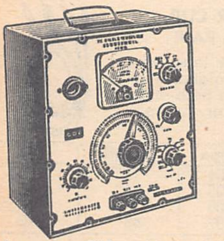
C-D R/C BRIDGE



Model BF-60. Capacitor - Resistor Bridge. Measures practically all types of capacitors and resistors. Detects opens, shorts, etc. Checks resistance of insulation, wires in cables, transformer windings, etc. Capacity range, .00001 to 1000 mfd. in 4 scales. Resistance, 100 ohms to 5 megohms. Has 5 polarizing voltages, 25, 150, 250, 350, 450 DC. Power factor from 0-50% at 60 cycles. Uses 6E5 as bridge detector and leakage indicator. Direct reading scale, easily read, simple, accurate. Shock proof, protected against after-test capacitor-charge shock. For 110-125 V., 50-60 cps. 5½"D x 7"H x 10"W. Complete with tubes. 10 lbs.

62F639. NET........ **51.85**

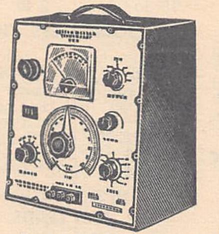
C-D R/C ANALYZER



Model BF-70. Capacitance-Resistance Analyzer. Quickly and accurately measures the characteristics of all types of capacitors and resistors. Measures capacity from .00001 to 2000 mfd. in 4 ranges. Resistance from 2.5 ohms to 25 Meg. Features include: Wien bridge for permanent accuracy, built-in amplifier for accurate readings, direct reading scale calibration. Unit measures power factor and leakage of electrolytic condensers. Built-in DC VOM. Measures 750 volts and 75 Ma. in three ranges. 110-125 V., 50-60 cps. In gray case, HWD 11x10x5½". 10 lbs.

62F652. NET........ **86.60**

● *NEW* CAPACITANCE-RESISTANCE ANALYZER

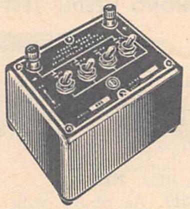


Model BF-71. Measures capacitor values from 10 MMFD to 2000 MFD-4 ranges. Measures resistor values from 2.5 ohms to 25 MEG ohms—3 ranges. Measures capacitor leakage current 2 microamps to 100 milliamps. Power factor measurements 0-50% at 60 cycles. Power—110-125 V AC, 60 cycles. Internal power supply 0-500 V DC continuously adjustable. Volt meter—10,000 ohms per volt, 3 ranges: 0-5, 0-50, 0-500 V DC. Milliammeter, 3 ranges: 0-200 microamps, 0-10, 0-100 milliamps. Overall accuracy 3%. Measurements made using a Wien Bridge. Voltage applied to Bridge—0.5 Volts 60 cycle. Dark Brown wrinkle enamel, metal case, 11 in. H. by 10 in. W. by 6½ in. D. Panel—beige background, red border, black and red lettering. Weight, 14 lbs.

62F649. NET........ **120.00**

ELECTROLYTIC CAPACITOR SUBSTITUTION BOX

- **Stable Leakage**
- **15 Capacitance Combinations**
- **Selenium Rectifier Applications**
- **Extremely Low Ripple**



Model CDE. This instrument offers a reliable and flexible capacitance for substitution purposes in a wide variety of service and experimental electronic and electrical applications. Proper permanent replacement capacitor can be determined directly from values indicated. Specially designed to eliminate increased DC leakage due to idling, by a process called ageing. This is accomplished by applying a DC voltage through a 2000 ohm, 10-watt resistor directly to terminals of capacitor. Selection of 15 capacitance combinations ranging from 10 mfd to 150 mfd in decade steps. The voltage range can be extended to a maximum of 450 volts direct current. Capacitor values include: 1-10 mfd, 1-20 mfd, and 3-40 mfd. Case size: 3⅝x5x3". Shipping weight: 2 lbs.

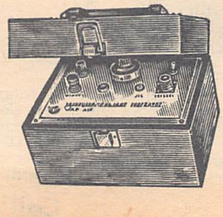
Stock No.	Type No.	1-24	25-49	50-99	100-up
62F647	CDE	14.20	13.20	11.95	11.05

VAP-AIR

TRANSIENT VOLTAGE INDICATOR

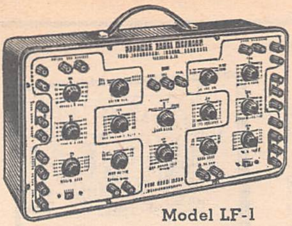
Highly sensitive, battery operated device which detects voltage pulses down to 1 micro-second with 2% full scale accuracy and pulses down to 0.5 micro-seconds with 5% accuracy. Uses: Checking severity of voltage transients in semiconductor equipment; Developing data on voltage transients for various types of power systems; Determining effectiveness of transient energy storage and filtering circuits; Isolating sources of transients and Monitoring semiconductor life tests for extraneous transients. Any instantaneous voltage in excess of voltage level preset on precision potentiometer dial triggers memory unit turning on indicator light and shutting off detector. Detection circuit battery life over 500 hours continuous duty. Indicator light may be shut off for unattended operation. Memory life, light off, exceeds 500 hours. Reset button resets unit. Voltage ranges: 0-200 and 0-2000 volts. Input impedance: 5 mmF in shunt with 1 meg. (0-2000V range). 5 mmF in shunt with 400 K (0-200 range). This provides negligible loading of circuit under test. Attractive walnut veneer case, complete with instructions, batteries, calibration chart and necessary leads. Size: 8¾"x6¼"x5¾". Shpg. wt., 11 lbs.

62F1721. NET........ **198.00**



TEST EQUIPMENT

SPRAGUE TEST EQUIPMENT

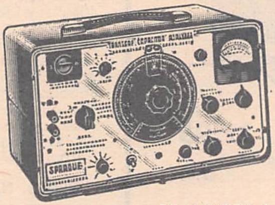

Model LF-1

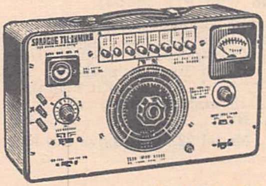
SPRAGUE TRANSIMULATOR

Model LF-1. This new instrument lets you simulate any amplifier stage, AC or "direct-coupled", short of high power audio output. Transistors, PNP and NPN Junction, and Surface Barrier. Circuits, common or grounded emitter, base, collector. Range, audio, up to 100kc. Transistor power, through medium power audio output. Battery supply, separate bias and load., 1.5, 3, 4.5, 6 VDC. Polarity reversing switch. Coupling, 2 uf and 20 uf direct, and ext. C posts, on both input and output. Bias resistance, up to 555,000 ohms continuously variable. Load resistance, up to 277,500 ohms continuously variable. Series resistor and bypass capacitor can be added. Base collector stability, up to 250,000 ohms variable. Voltage divider stability, up to 50,000 ohms variable. Less batteries. Size: 8⅞x 14⅝x6½''. Shpg. wt., 11 lbs.

62F1081. NET......**79.50**

Model M-2


Model TCA-1


Model TO-5

"MIKE-O-METER" CAPACITOR TESTER

Model M-2. Speeds and simplifies capacitor testing for air conditioning, refrigeration and electric motor service technicians. Measures capacitance and power factor of any capacitor from .1 to 2000 Mfd. by Wien bridge method. Magic eye tube for easy bridge balancing. Has special "Press to test" safety feature which allows voltage to appear at terminals only when switch is pressed. Direct reading on calibrated scales. Finished in dark gray enamel. Size: 9"x6"x5¾". Shipping weight, 6 lbs.

62F634. NET......**32.50**

TRANSFARAD CAPACITOR ANALYZER

Model TCA-1. Specifically designed to safely test capacitors used in transistor and other low voltage circuits. Capacitance and power factor are measured without danger of overheating. Low AC bridge protects even 1 volt capacitors from damage. Capacitance: 1uuf to 2000 uf in 5 ranges. Power factor: 0-50%. Dual regulation of power supply assures short time stability. Specially processed etched circuits and complete encapsulation of the critical bridge null amplifier insure long time stability. Sensitivity control for magic eye null detector permits accurate measurement of small capacitances. Cap. discharged after testing. AC bridge V:0.5 V Polar V 0-150V. Wt., 28 lbs.

62F633. NET......**197.50**

MODEL TO-5 TEL-OHMIKE

A famous and most-wanted piece of bench equipment! For the technician who must make his minutes count, yet demands accuracy in all tests. This bridge-type instrument not only measures resistance and capacity, but locates open, shorted, and intermittent units. The only piece of equipment in its class that will check out small ceramic condensers used in modern TV. Measures capacity from 1 mmf to 2,000 mfd in 5 ranges, and power factor from 0 to 55%. Reads leakage current 0-6-60 ma. Polarizing voltage: 0-60-600. Also checks insulation resistance from 150-20,000 megs. Operates from 110-120v, 60-cycle AC. Sturdy cabinet, 8⅞x 14⅝x6⅛''. Shpg. wt., 15 lbs.

62F632. NET......**92.50**

AEROVOX DECADE BOXES

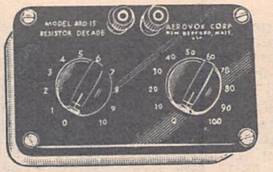
Provide accurate standards of resistance, capacitance, and inductance. Ideal for laboratory and experimental use. Heavy-duty construction throughout assures trouble-free operation. Face plates are black with white numerals for maximum legibility. Rugged, seamless steel box housing.

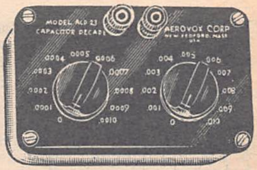
In the "Use" column of the table below, C stands for Capacitance Decade Box, L for Inductance Decade Box, and R for Resistance Decade Box.

Except for ALD-42, the Capacitance Decade Boxes have operating ranges of 400 to 20,000 cps; ALD-42 has a range of 400 to 5,000 cps. Multiple-dial Capacitance Decade Boxes have the highest value multiplier to the left so that readings are instantly comprehendable.

- **Provide Accurate Standards of Resistance, Capacitance & Inductance**

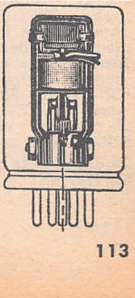
Type ALD-42


Type ARD-15


Type ACD-23

Stock No.	Mfr. Type	Use	Dielectric	Dials	Range	Steps	Accuracy ±		Rating		NET
							1st Dial	2nd Dial	1st Dial	2nd Dial	
62F1300	ACD-13	C	Mica	2	0 to .011 mfd.	0.0001 mfd.	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	13.15
62F1301	ACD-23	C	Oil-Paper	2	0 to 1.1 mfd.	0.01 mfd.,	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	15.60
62F1302	ACD-33	C	Oil-Paper	1	0 to 10.0 mfd.	1.0 mfd.	3%		600 VDC 220 VAC		25.40
62F1303	ALD-12	L	Toroidal	1	0 to 10 mh.,	1.0 mh.	2%	......	250 MaDC	....	29.90
62F1304	ALD-22	L	Toroidal	1	0 to 100 mh.	10.0 mh.	2%	......	79 MaDC	....	29.90
62F1305	ALD-32	L	Toroidal	1	0 to 1.0 hy.	100.0 mh.	2%	......	25 MaDC	....	29.90
62F1306	ALD-42	L	Toroidal	1	0 to 10.0 hy.	1.0 hy.	2%	......	8 MaDC	....	29.90
62F1307	ARD-15	R	Wire-Wound	2	0 to 110 ohms	1.0 ohm	5%	3%	1.0 Amp.	0.5 Amp.	13.75
62F1308	ARD-23	R	Wire-Wound	2	0 to 11 K	100 ohm	3%	3%	100 Ma.	50 Ma.	13.75
62F1309	ARD-31	R	Carbon Deposited	2	0 to 1.1 meg	10 K ohm	1%	1%	5 Ma.	2 Ma.	13.75

JAMES VIBRAPOWR COMMERCIAL CHOPPER



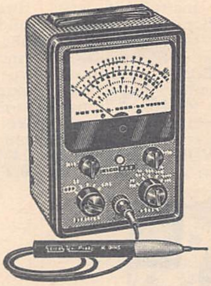
Model C-1800. For dependable, high performance, electromechanical switching at reasonable cost. Basic component for D.C. amplifiers, D.C. adaptation of A.C. Voltmeters and continuous sampling of two signals. Commercial applications. Rugged die-cast contruction, precious metal contacts, low residual noise and long life. Moisture and dust sealed octal based enclosure, rigid quality control. Operating frequency 55-65 ±5 cps. Coil voltage 6.3±1 volt. Phase lag is 26±7 degrees. Contact on time 150±15 degrees. Contact symmetry is 15 degrees. Contact bounce 4 degrees max. in initial, 10 degrees on time. Contact rating 50 volts at 1 ma. max. Residual noise 1 mv at one megohm imped. Wt., 100 grams. Temp., —55°C to +85°C. Fits standard radio octal socket.

62F405. NET......**13.23**

Model C-1830. Low level shielded input transformer for chopper and A.C. applications.

62F406. NET......**14.65**

● *NEW* MODEL 222K VACUUM TUBE VOLTMETER KIT



Provides entirely electronic, direct reading measurement of AC and DC voltages.

DC Ranger: 0-3, 15, 75, 300, 1500 volts (to 30 kv with HVP probe using 1090 meg Multiplier Resistor). Input Imp: 11 meg. Accuracy: ±3%.

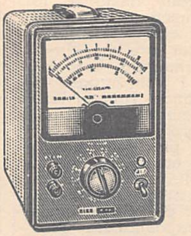
AC Range: 0-3, 15, 75, 300, 1500 volts. Input Imp: 1 meg. Accuracy: ±5%. Freq. Resp. 30 cps to 3 mc (up to 250 mc with PRF probe; peak-to-peak readings directly on DC scale possible with PTP probe).

Ohmmeter: 0.2 ohms to 1000 meg in 5 ranges. Uses 1.5 volt battery. Includes Dual-purpose AC/DC Uni-Probe; a half turn of probe-tip selects DC or AC-Ohms. Kit complete with full instructions. Shpg. wt., 7 lbs.

62F876. NET..**27.95**

62F877. Model 222. As above but factory wired and tested. **NET**..42.95

MODEL 255K AC VTVM KIT

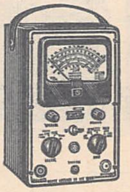


Model 255K. High sensitivity, wide-band AC VTVM of laboratory accuracy and quality. It measures AC voltage from 100 microvolts to 300 volts in 12 ranges. Responds to the average value of the applied wave and reads in RMS value of a sine wave. Single sensitivity adjust: Two-stage R-C coupled amplifier. Full-bridge meter circuit in one overall feedback loop; Frame-grid triode cathode follower input circuit. No response adjustment required in amplifier circuit; DC-biased filaments and hum-adjust pot Voltage Range: RMS m.v. 1, 3, 10, 30. 100, 300; RMS volts, 1, 3, 10, 30, 100. 300. DB. Range: —80 to +52 db in 12 ranges. Freq. resp. ±0 db 10 cps. to 600kc. Accuracy: ±3% of full scale. Power req.: 105-125 VAC, 50/60 cps. 15 watts drain. Grey steel cabinet. Size: (HWD) 8½"x5¾"x7". Kit complete with instructions. Weight, 7 lbs.

62F872. Model 255K. Kit. **NET**..**44.95**

62F873. Model 255. Factory wired and tested. **NET**..72.95

MODEL 221-K VACUUM TUBE VOLTMETER KIT

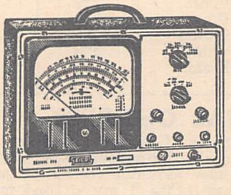


VTVM kit with 15 different ranges. AC-DC ranges: 0-5, 10, 100, 500, 1000 volts (30 kv when used with HVP-1 or -2). Measures up to 200 mc when used with PRF probe. 5 ohmmeter ranges from .2 ohms to 1000 megs. DB scale for audio and gain measurements. 25 megs DC input impedance. All multiplier resistors have accuracy of 1%. 4½" meter with zero center scale for TV & FM discriminator alignment. Double-triode balanced bridge circuit. Uses: 6SN7, 6H6, 6X5. Steel case, 9 7/16x6x5". For 105-125 v., 50-60 cycles. With diagrams, instructions, all parts; less solder. Shpg. wt., 7 lbs.

62F757. NET..**25.95**

Model 221. As above, but factory-wired and tested. Wt., 7 lbs. **62F758. NET**..39.95

MODEL 214-K VACUUM TUBE VOLTMETER KIT

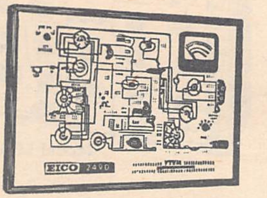


Extra-sensitive VTVM kit with 15 ranges. Features large 7½" meter with zero-center for TV and FM discriminator alignment. 1% resistors used throughout. AC-DC ranges: 0-5, 10, 100, 500, 1000 volts (30 kv with HVP-1 or -2). Measures to 200 mc with PRF probe. 5 ohms ranges from .2 ohms to 1000 megs. Includes db scale. Double-triode balanced bridge circuit. 25 megs DC input impedance. Uses 6SN7, 6H6, 6X5, 13¼x9x6" steel case. For 105-125 v., 50-60 cycles. With diagrams, instructions, all necessary parts; less solder. Shpg. wt., 11 lbs.

62F771. NET..**34.95**

Model 214. As above, but factory-wired and tested. Wt., 11 lbs. **62F772. NET**..54.95

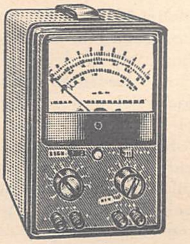
● *NEW* MODEL 249D VISU-TRONIC VTVM DEMONSTRATOR KIT



Model 249D. VTVM Demonstrator shows the principles of electronics employed in the VTVM. The #249D includes a complete schematic of Eico's Model 249 VTVM silk screened on masonite board 27½" high x 40¾" wide, protected by a clear, transparent coating, plus all parts needed to build a complete working Eico Model 249. 17 parts of the circuit can be disabled to help teach trouble shooting and help illustrate basic principles of elecronics. The completed schematic is 3½" deep, and can either be hung on the wall with the special wall mounts provided, or stand on desk or table on its own two swingout legs. Shipping Weight, 21 lbs. Kit complete with all instructions.

62F878. NET..**89.95**

MODEL 250K AC VTVM AND AMPLIFIER KIT

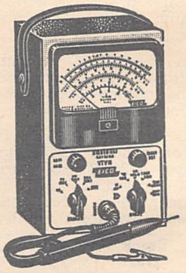


Model 250K. High sensitivity, wide-band AC VTVM and AMPLIFIER of laboratory accuracy and quality. It measures AC voltage from 100 microvolts to 300 volts in 12 ranges. A function selector switch on the panel converts the instrument to a wide-band amplifier with a gain of 60 db on the 1 MV range, and a maximum output of 5 volts RMS. Stabilized power supply incorporates voltage regulator; DC-biased filaments and hum-adjust pot. Voltmeter voltage ranges: 1, 3, 10, 30, 100, 300 RMS m.v. and 1, 3, 100, 300 RMS volts. Max. Hum and Noise: —40 db @ 2 mv in. Amplifier max. output v. 5 RMS v. Power Req. 105-125 VAC, 50/60 cps. 15 watts drain. Grey steel cabinet. Kit complete with instructions. Size: (HWD) 8½"x5¾"x 7". Wt., 7 lbs.

62F874. Model 250K. Kit. **NET**..**49.95**

62F875. Model 250. Factory wired and tested. **NET**..79.95

MODEL 232-K PEAK-TO-PEAK VTVM KIT

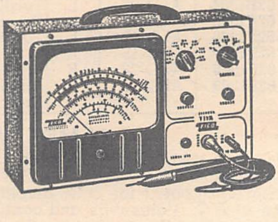


Features high circuit stability and accuracy. Uses 1% precision resistors throughout. Directly measures p-p voltage of complex and sine waves on scales of 0-4, 14, 42, 140, 420, 1,400 and 4,200 volts. Resis. ranges: 0-1,000 megs in 7 steps. 7 non-skip ranges on the 4 functions of: +DC volts, —DC volts, AC volts, Ohms. Frequency response: 30 cps to 3 mc. Up to 250 mc with PRF probe. DC-RMS sine voltage ranges: 0-1.5-5-50-150-500-1,500 volts. 4½" meter in a burn-out-proof circuit. Zero center for TV-FM discriminator alignment. Calibrates without removal of cabinet. Complete with all parts, less solder. Compact in size: 8½x5x5". For 110-120 V. 50-60 cy. AC. Kit complete with instructions. Wt., 5 lbs. With Uni-Probe.

62F811. NET..**29.95**

Model 232. As above but factory wired and tested. Ready to use. **62F812. NET**..49.95

MODEL 249-K DELUXE PEAK-TO-PEAK VTVM KIT

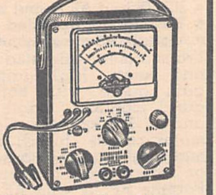


Has the same ranges and exclusive design features as the Eico Model 232 including the 1% precision resistors, external calibration, zero center for alignment purposes, one zero adjustment for all functions and ranges, plus the added convenience and readability of a large 7½" meter. Satin finish etched panel with contrasting knobs. Complete with all parts less solder. Size: 8½x 13x5". For 110-120 V. 50/60 cy. AC. Shpg. wt., 9 lbs. With Uni-Probe.

62F813. NET..**39.95**

Model 249. As above but factory wired and tested. Ready to use. **62F814. NET**..59.95

NEW TRANSISTOR AND CIRCUIT TESTER KIT



Model 680K. Transistor and circuit tester providing accurate measurement of basic transistor and diode characteristics required for quality testing; plus VOM facilities normally needed for trouble-shooting transistor circuits. Measures: DC current 0-50 ua, 0-500 ua, 0-5 ma, 0-50 ma, 0-500 ma; DC voltage 0-5 V, 0-50 V; resistance 0-2K (12 ohms center scale), 0-200K (1200 ohms center scale), 0-20 megohms (120K center scale); ICBO and ICEO for signal and power transistors; DC beta 2-30, 20-300; AC beta (indirectly). Overall accuracy: 3%. 3½" clear plastic face 50 ua meter. Controls: Range; Mode (NPN, PNP, VOM); Test; beta calibrate-ohms adjust. Connectors: three clip on test leads for transistors; transistor socket; banana jacks for VOM. Polished bakelite case and brushed aluminum panel. 6¾Hx5¼Wx3"D. Uses 4 size AA. 1 size C batteries. With instructions. Shpg. wt., 3 lbs.

62F881. NET **25.95**

Model 680. As above, factory wired and tested.

62F882. NET **39.95**

AC VOLT-WATT METER KIT

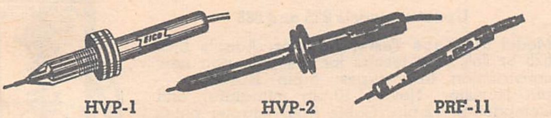
Model 261K. Excellent for audio design and production line applications. Provides measurements of amplifier gain/response, amplifier power output, network response and output level. Specs. VOLTMETER: Ranges: 0.01, 0.03, 0.1, 0.3. 1, 3, 10, 30, 100, 300, 1000 RMS volts. Frequency response: ± 0 db 10 cps-150 KC, —3 db at 50 KC; Input Impedance: 2 Megohm; Accuracy: ±4%. Specs, WATTMETER: Ranges: 0.15 mw, 1.5 mw, 15mw, 150mw, 1.5W, 15W, 150W; Frequency Response: ±0 db, 10 cps—100 KC; Accuracy: ±5%; Internal loads: 4, 16, 600 ohms for 40W and 8 ohms for 80W. External Loads: 4, 8, 16, 600 all to 150W. The DB scale reads directly in dbm on 600 ohms load (—20 to +2 db). Relative voltage db on the same scale (0 db = 0.774 volt). Successive power ranges are 10 dbm apart. Power: 105/125V, 50/60 cps, 15W. Size: (HWD) 8½x5¾x7". With instructions. Shpg. wt. 6 lbs.

62F866. NET **49.95**

Model 261. As above, factory wired and tested.

62F867. NET **79.95**

TEST PROBES



HVP-1 HVP-2 PRF-11

MODEL HVP-1 HIGH VOLTAGE PROBE

High voltage probe, extends range of VTVM's and VOM's to 30,000 volts. With cable. Shpg. wt., ¼ lb.

62F784. Wired. **NET** **6.95**

MODEL HVP-2 HIGH VOLTAGE PROBE

HV probe extends range of VTVM's and OM's to 30,000 volts. Shipping weight ½ lb.

62F815. For Model 214, 221. Wired. **NET** **4.95**

62F850. Wired. For Model 232, 249. **NET** **4.95**

VTVM PROBES

Model PRF-11. An RF probe for any 11 meg. VTVM. ½ lb.
62F816. Kit. **NET** .... 3.95; **62F817.** Wired. **NET** 4.95

Model PRF-25. An RF probe for any 25 meg. VTVM. ½ lb.
62F818. Kit. **NET** .... 3.95; **62F819.** Wired. **NET** 4.95

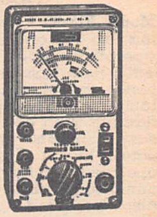
Model PTP-11. Peak-to-peak probe. For 11 megs. VTVM. ¼ lb.
62F820. Kit. **NET** .... 4.95; **62F821.** Wired. **NET** 6.95

Model PTP-25. Peak-to-peak probe. For 25 megs. VTVM. ¼ lb.
62F822. Kit. **NET** .... 4.95; **62F823.** Wired. **NET** 6.95

MODEL UP UNI-PROBE

Dual-Purpose AC/DC probe as used in models 232 & 249.
62F864. Kit. **NET** .... 4.95 **62F865.** Wired. **NET** 6.95

UTILITY TESTER KIT MODEL 540-K



- **Neon lamp ac leakage test circuit**
- **Multi-range AC/DC voltmeter**

A versatile instrument that can be used as a multi-range AC/DC voltmeter, an ammeter, an ohmmeter, a wattmeter, and a leakage detector. 3½" meter. All voltage ranges (0-7.5-15-150-300 volts) and current range (0-15 amps) are AC/DC. 0-1000 direct reading ohms. Neon lamp ac leakage test circuit permits continuity check of resistors between 1000 ohms and 2 megohms and capacitors above .0005 mfd. Direct reading of power line voltage up to 300 volts AC/DC. Panel outlet permits metering current up to 15 amps drawn by any appliance. Provides "good-bad" readings on 6 or 12 volt storage batteries. Size: 3¾x6½x3½". With instructions. 3 lbs.

62F846. NET **12.95**

Model 540. As above, factory wired and tested.

62F847. NET **15.95**

MODEL 565-K 20,000 OHMS/VOLT MULTIMETER KIT

New extra-sensitive 20,000 ohms per volt instrument kit featuring 31 different full scale ranges. AC-DC and output volts: 0-2.5, 10, 50, 250, 1000, 5000 (DC at 20,000 ohms per volt, AC at 1,000 ohms per volt). DC current: 0-100 microamps, 10 ma, 100 ma, 500 ma, 10 amp. Ohms: 0-2000, 200,-000, 20 meg. 5 db ranges: —12 to +55. Large 4½" meter with 50 microamp D'Arsonval movement. Hand-calibrated and tested rectifier. High impact bakelite case, 6¾x5¼x3". With diagrams, instructions, all necessary parts; less solder. Wt., 3 lbs.

62F773. NET **24.95**

Model 565. As above, but factory wired.

62F774. NET **29.95**

MODEL 536K 1000 OHMS/VOLT MULTIMETER KIT

1000 ohms/volt multimeter kit with extra-extended ranges from 0 to 1 volt up to 0-5000 volts, 31 different full scale ranges. AC-DC volts: 0 to 1, 5, 10, 50, 100, 500, 5000. AC-DC current: 0-1 ma, 10 ma; 0.1 amp, 1 amp. Ohms: 0-5,000, 100,000, 1 meg. 6 db ranges: —20 to +69. Large 3" 400 ma meter movement. Low minimum battery-drain ohm ranges. Dual rectifier has separate low and high voltage calibration in AC ranges. High-impact bakelite case, 6¼x3¾x2¾". With diagrams, instructions and all necessary parts; less solder and leads. Shipping weight, 2 lbs.

62F778. NET **12.90**

Model 536. As above, but factory-wired and tested. Wt., 2 lbs.

62F777. NET **16.90**

Type 610. Test lead kit for above.

35F929. NET **1.76**

MODEL 566-K 1000 OHMS/VOLT MULTIMETER KIT

Large-size, high-efficiency instrument with 38 difference full scale ranges. AC-DC and output volts: 0 to 1, 5, 10, 50, 100, 500 and 5000 with 1,000 ohms per volt sensitivity on both AC and DC ranges. AC-DC current: 0-1 ma, 10 ma, 0.1 amp, 1 amp. Ohms: 0-5,000, 100,-000, 1 meg. 6 db ranges: —20 to +69. Large 4½" 400 ma D'Arsonval meter movement. Features new low minimum battery-drain ohm ranges. Dual rectifier has separate low and high voltage calibration in AC ranges. High-impact bakelite case, 6¾x5¼x3". With diagrams, instructions, all parts; less solder. Shipping weight, 3 lbs.

62F775. NET **14.90**

Model 566. As above, but factory-wired and tested. Wt., 3 lbs.

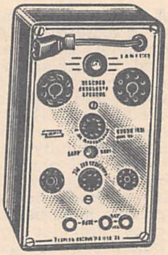
62F776. NET **20.95**

Newark offers a Complete Line of Test Equipment for both the Industrial and Laboratory Technician

EICO® TEST EQUIPMENT KITS

WRITE FOR PRICES ON
ITEMS NOT LISTED

FILAMENT CONTINUITY TESTER KIT

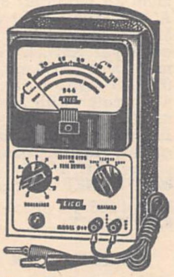


Model 612-K. Permits fast filament checking of TV and radio tubes in an inoperative series string. Merely remove each tube from set, plug into appropriate tester socket while observing indicator lamp, and re-insert into set if O.K. No fiddling with controls or switches necessary. Sockets are provided for 9-pin, octal, loctal, 7-pin portable and line-operated receiver tubes. 7-pin and 9-pin miniature tube pin straighteners are also provided. Adapter plug permits filament checking of 14-pin, 12-pin, and 8-pin (110°) picture tubes. Also checks bayonet and screw-type base pilot lamps, and cartridge fuses. Self-powered by internal batteries for convenience and safety. Batteries included. Deep-etched brushed aluminum panel; high-impact molded bakelite case. Compact size 6¼x3¾x2''. Shpg. wt.: 2 lbs.

62F858. Kit. Complete with instructions. **NET**.................... **3.95**

62F859...**Model 612.** As above, but wired and tested. **NET**....5.95

MODEL 944-K FLYBACK TRANSFORMER & YOKE TESTER KIT



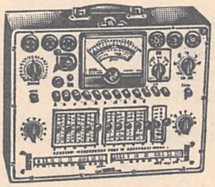
- **3 individual "Good-Bad" scales for quick, accurate testing!**
- **Checks inductive windings on chokes, transformers, coils, relays!**

Quickly and accurately troubleshoots horizontal circuits of all TV receivers. Allows positive check of all types flybacks and yokes, in or out of the set. Has three separate colored "Good-Bad" scales on a large easy to read 4½'' meter which operates on the extremely sensitive grid-dip principle. Shows up a single shorted turn. Checks inductive windings on any transformer, choke, coil, solenoid, relay, etc. May be used as a proportional AC ohmmeter. Gray wrinkle steel case. 7x5x4". With all parts. 105-125 V. 60 cyc. AC. 5 lbs.

62F832. Kit. Complete with instructions. **NET**.................... **23.95**

62F833. Model 944. As above, but wired and tested. **NET 34.95**

MODEL 666-K TUBE AND TRANSISTOR TESTER KIT



Ideal for color and monochrome TV servicing. Uses approved two-step test on both n-p-n and p-n-p transistors. Features the dynamic conductance tube test. Has direct reading of interelement leakage in ohms. Multi-section tubes have each section individually tested by rapid pushbutton selection, while all sections are simultaneously drawing full-rated current. Extensive, up-to-date roll-chart. Operates from 105-130 volts AC line, 50/60 cyc. Provided with pilot lamp and fused. 4½'' 200 microamp meter movement. Steel case. 12x15x4½''. 20 lbs.

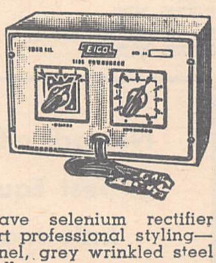
62F844. Kit. Complete with instructions. **NET**.................. **69.95**

62F845. Model 666. As above, but wired and tested. **NET 109.95**

Model CRA Picture Tube Test Adapter. Adapter for use with above unit. Tests any TV picture tube without removal from set. Shipping wt., 2 lbs.

62F785. NET...4.50

MODEL 352-K BAR GENERATOR KIT



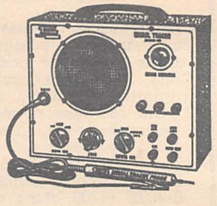
Produces 16 vertical bars to check horizontal or 12 horizontal bars to check vertical linearity on TV screen when connected to antenna terminals of any TV set. A handy time saver that eliminates the need for station transmitted test patterns. Gives indication of vertical and horizontal sync circuit stability. Operates on TV channels 3, 4, 5. Output voltage: 100,000 microvolts. Tube complement: 1-12AU7, 1-6C4; selenium rectifier. Power supply: transformer operated-half-wave selenium rectifier circuit: 115 VAC, 50/60 cyc. Has smart professional styling—satin finish deep-etched aluminum panel, grey wrinkled steel case. 7½x5½x4½''. Shipping weight 4 lbs.

62F804. Kit. Complete with instructions. **NET**.................... **14.95**

Model 352. As above, but factory wired and tested. Ready to use.

62F803. NET.. **19.95**

DELUXE MODEL 147-K MULTI-SIGNAL TRACER KIT



- **RF, IF and AF signal tracing**
- **Transformer operated**
- **Visual and aural monitors**

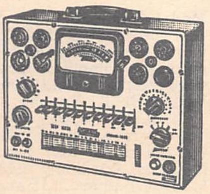
Transformer operated for isolation and safety. High gain RF and low gain audio with both visual and aural monitors, magic eye indicator and 5'' PM speaker. Calibrated wattmeter circuit (fused) reveals abnormal total wattage consumption, open, or intermittent filament circuit, etc. Permits RF, IF and AF signal tracing in FM, AM and TV sets. Noise localizer circuit applies DC test voltage thru probe to suspected component and simultaneously picks up and amplifies effect. May be connected as test speaker, amplifier or output xformer. Output for VTVM or scope. For null detector, scope preamp, etc. With all parts. 8x10x4¾". Power input required: 105-125 volts AC, 50-60 cyc., 40 watts. **Kit.** Complete with instructions. Shipping wt., 10 lbs.

62F809. NET.. **24.95**

Model 147. As above, but factory wired and tested.

62F810. NET 39.95

MODEL 625-K TUBE TESTER KIT



- **Tests all conventional tubes plus pilot bulbs**
- **Speed-roll chart**
- **Large 4½" meter**

Tests all conventional and TV tubes plus pilot bulbs. Short and open test for each element. "Speed-roll Chart," speeds location and setting up of any tube. Lever-action switches for individual testing of every tube element regardless of arrangement. Blank spare socket for future tubes. Large 4½'' bakelite-cased meter. Heavy-gauge steel case, 12½x9½x4½''. For 105-125 v., 50-60 cyc. With diagrams, instructions; less solder and leads. Shpg. wt., 12 lbs.

62F763. NET.. **34.95**

Model 625. As above, but factory-wired and tested. Wt., 13 lbs.

62F764. NET..49.95

Model CRA Picture Tube Test Adapter. Adapter for use with above unit. Tests tubes without removal from set. Weight, 1 lb.

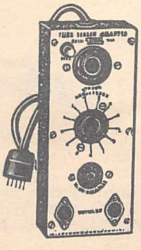
62F785. NET..4.50

Model CRA 110. 110° Deflection Picture Tube Test Adaptor. For use with above unit. Wt., 1 lb.

62F851. NET 3.95

TUBE TESTER ADAPTER KIT

Updates models 625 and 666

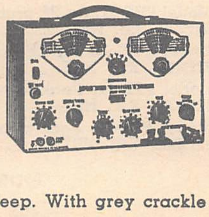


Model 610 Tube Tester Adapter. Adapts Eico 625 or 666 tube testers for the following new construction tube types: 5-pin Nuvistor, 7-pin Nuvistor, Novar, 10-pin miniature, and Compactron 12-pin. Cable from adapter plugs into 9-pin socket of tube tester. Cap terminal on adapter accepts grid cap lead from tube tester. Included are roll chart supplements for both the 625 and 666 tube types listed above. Housed in a steel case with aluminum panel 1¼x2½x6''. Shpg. wt., 1 lb.

62F879. Model 610K. Kit, complete with instructions. **NET**.. **5.95**

62F880. Model 610. Factory wired. **NET**....................11.95

TV-FM SWEEP GENERATOR AND MARKER MODEL 368-K



Entirely electronic sweep circuit with fine sensitivity. Extremely flat RF output. Sweep generator range is 3-216 mc in 5 overlapping fundamental bands: complete FM and TV coverage on fundamentals. Accurately biased Increductor. Sweep width continuously variable from 0-3MC lowest maximum deviation. Variable marker generator range is from 2-75 mc in 3 fundamental bands plus a calibrated harmonic band (60-225 mc). Power: 105-125 volts AC, 50/60 cyc.; 50 watts. Size: 8¾'' high x 13½'' wide x 7¼'' deep. With grey crackle case. Shpg. wt., 16 lbs.

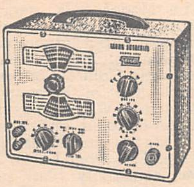
62F848. Kit, complete with instructions. **NET**.................... **69.95**

62F849. Model 368. As above, but wired and tested. **NET**....119.95

TEST EQUIPMENT AND KITS

EICO®

324-K RF SIGNAL GENERATOR KIT



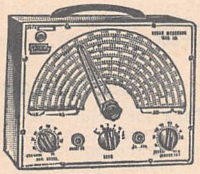
For IF-RF alignment signal tracing, trouble-shooting of AM, FM and TV all on fundamentals. Marker generator for alignment of hi freq. TV IF's. Extended fundamental freq. range from 150 kc to 145 mc in 6 bands. 7th calibrated harmonic band from 111 mc to 435 mc. Colpitts RF oscillator, directly plate-modulated by cathode follower. Coarse and fine RF attenuators. With all parts; full instructions. 8x10x4¾". 8 lbs.

62F838. NET........ **26.95**

Model 324. As above, but wired and tested.

62F839. NET........ **39.95**

MODEL 320-K SIGNAL GENERATOR KIT



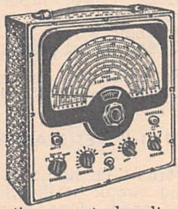
Hartley oscillator produces fundamentals from 150 kc to 34 mc, with harmonics to 102 mc. 5-step band switching. Colpitts audio oscillator generates 400-cycle pure sine wave voltage. Permits pure RF, modulated RF, or pure AF for external testing for distortion in audio equipment, etc. Continuous-type shielded RF and AF attenuators. Vernier-type condenser for tuning accuracy. 0-100 reference scale. TV IF's and FM IF's marked on scale. Uses: 6SN7, 6X5. Steel case, 10x8x4¾". With instructions, and all parts. For 105-125 volts, 50-60 cycles. Shpg wt., 8 lbs.

62F755. NET........ **19.95**

Model 322K. RF Signal Generator Kit. Has all of the features of model 320K above, plus individual calibration of all 5 bands.

62F791. NET........ **23.95**

MODEL 315-K SIGNAL GENERATOR KIT



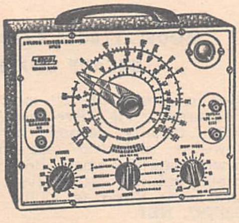
Extremely stable, boosted range oscillator circuit covering the full range of 75 kc. to 150 mc. 4-step RF shielded output attenuator. Seven separate calibrated scales with accuracy better than 1%. Internal 400-cycle pure sine wave audio signal generator modulates RF and is available for external audio testing with AF attenuator. Provision for external modulation. 0-100 vernier scale. Triple shielding for extremely low leakage output; copper plated chassis fully shielded from cabinet; specially shielded attenuation controls; line filter specially shielded. Uses: 6C4, 7F7, 6X5, VR-150. Steel case, 13x12x7". With diagrams, instructions, all parts; less solder. For 105-125 v., 50-60 cycles. Wt., 18 lbs.

62F759. NET........ **39.95**

Model 315. As above, but factory-wired and tested. Wt., 21 lbs.

62F760. NET........ **59.95**

MODEL 950-K RC BRIDGE/R-C-L COMPARATOR KIT



- **Compact, always handy unit for complete portability!**
- **Available in easy to build kit form, or ready-made and factory wired!**

Measures and tests all resistors from 0.5 ohm to 500 megohms, and all capacitors from 10 mmfd to 5000 mfd. Comparator Range for comparison of resistance, capacitance and inductance with a complementary component as a standard; has wide range of 400:1. Has continuously variable 0-500 volts DC source for capacitor leakage testing. For 110 volts, 60 cycles AC. In rugged steel case; 10x8x4¾". With all parts; less solder and leads. Wt., 8 lbs.

62F794. NET........ **19.95**

62F799. Model 950. As above, wired and tested. **NET**........ **29.95**

MODEL 377-K AUDIO GENERATOR KIT

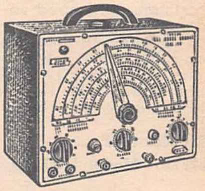
Complete sine wave coverage from 20-200,000 cycles in 4 ranges individually calibrated on panel. Complete square wave coverage from 60-50,000 cycles (5% round-off at 50 kc), read on same scales as sine wave. Response ±1.5 db from 60 cycles to 150 kc. Extremely stable Wien bridge-type oscillator for high power output. Continuously variable power output: 100 mw into rated load (10 volts across 1,000 ohm load). Rated load impedance: 1000 ohm resistance. Distortion only 1%. Hum less than 0.4% of output. All bridge resistors 1% accurate. Uses: 1-6X5, 1-6SJ7, 2-6K6, 1-6SN7, 105-125 v., 50-60 cycles. Calibration accuracy: ±3% or 1 cps, whichever is greater. Has choke filtering in power supply for minimum hum level. Smart professional styling—satin finish deep-etched aluminum panel, grey wrinkled steel case. Generator kit is particularly suitable for electro-acoustic experimentation, development work, and wide-band amplifier work & TV service. Steel case, 11⅛x7⅝x7⅛". With diagrams, instructions, and all parts; less solder and leads. 13 lbs.

62F769. NET........ **31.95**

Model 377. As above, but factory-wired and tested. Wt., 13 lbs.

62F770. NET........ **49.95**

MODEL 360-K SWEEP GENERATOR KIT



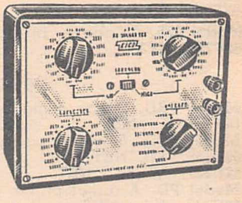
Covers all TV and FM alignment frequencies between 500 kc and 228 mc in continuous sweep when used with any 'scope. Exceptionally high RF output on all ranges. RF shielded continuous-type attenuator. Sweep width variable from 0-30 mc; permits gain comparison of adjacent RF TV channels. Crystal marker oscillator with variable amplitude control. Provision for injection of external marker. Phasing control for single trace adjustment. Large vernier-driven dial calibrated directly in TV channel numbers and frequencies; 0-100 scale for repeat settings. Uses: 6X5GT, 2-6J5, 6C4, 7193 (2C22). Variable phase, 60 cps output available at panel jack to allow single trace adjustment. Has place for connection of external marker generator. Deep-etched aluminum panel; rugged grey steel case. 10x8x6¾". For 105-125 v., 50-60 cyc. With diagrams, instructions, all parts; less crystal and solder. Shpg. wt.. 12 lbs.

62F761. NET........ **34.95**

Model 360. As above, but factory-wired and tested. Wt., 12 lbs.

62F762. NET........ **49.95**

R-C COMBINATION BOX KIT



Model 1140-K. Combines Model 1100-K and Model 1120-K in one box with facilities for selection of either R alone, C alone, or series or parallel combinations of R and C (1350 combinations!). Includes all EIA resistance values from 15 ohms to 10 megohms and all EIA capacitance values from .0001 to 0.22 mfd. Min. accuracy ±10%; resistors 1 watt carbon and capacitors silver-mica or molded/impregnated plastic, most rated at 600 volts. Powerful tool and time-saver in servicing, lab work, and study. May be substituted in operating circuit to determine RC combination value, or just R or C value, needed for optimum performance. Invaluable when working without circuit diagram and damaged component value is illegible. Convenient 5-way jack top binding posts. Satin-aluminum front panel. Shipping weight, 3 lbs.

62F860. Net........ **13.95**

62F861. Model 1140. As above, wired and tested. **NET**........ **19.95**

MAKE NEWARK YOUR ONE POINT SOURCE FOR ALL YOUR ELECTRONIC NEEDS

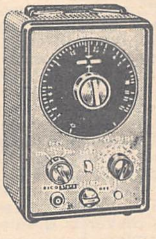
NEWARK speeds your project by off-the-shelf supply of over 70,000 items in current demand.

NEWARK saves you time and money by placing your one purchase order at QUANTITY PRICES COMPETITIVE WITH THE MANUFACTURER.

EICO® TEST EQUIPMENT

NEWARK CARRIES COMPLETE LINES OF TEST EQUIPMENT

● *NEW* MODEL 955K IN-CIRCUIT BRIDGE-TYPE CAPACITOR TESTER



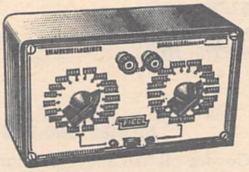
Permits out-of-circuit or in-circuit short check with shunt res. as low as 1 ohm. Reliable up to 2000uf 60 cps test freq. Max. test volt 6.3 v AC (open leads), dec. with dec. imp. Open test of capacitors as small as 15 uuf with inst. adjusted normally. For in-circuit testing, shunt res. may be as low as 35 ohms for capacitors above 250mmf (7K ohm at 15uuf). Capacity Meas.: From 0.1 to 50uf ±10% accuracy at any point on the capacity dial in either in-circuit or out-of-circuit meas. Oper. freq. of the bridge is 60 cps. Line Voltage: 105 to 130 v AC, 60 cps; 8 w drain. Dim: 8½"x5¾"x6". With diagrams, instructions, all parts; less solder. Shpg. wt., 4 lbs.

62F883. NET **19.95**

Model 955. As above, but factory wired and tested.

62F884. NET **39.95**

MODEL 1100-K EIA RESISTANCE SUBSTITUTION BOX

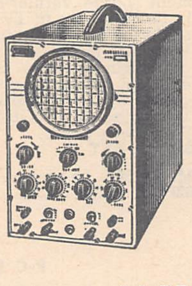


Permits rapid substitution of a wide range of EIA resistance values in an operating circuit to determine the resistance required for best performance . . . determines the value of unmeasurable resistors. 36 EIA 1 watt, 10% resistors, arranged in Hi and Lo decades give resistance ranges of 15 ohms-10 megs in decade multiples of 15, 22, 33, 47, 68 and 100 ohms. 5-way jack-top binding posts for connection of practically any type of test lead. Molded black bakelite cabinet with 2 color deep etched aluminum panel. With all parts, less solder and leads. Size 3¾x6½x3½". Shipping weight, 2 lbs.

62F808. NET **6.95**

62F807. Model 1100. As above, wired and tested. **NET** **10.95**

MODEL 425-K 5" SCOPE



5" oscilloscope kit featuring push-pull undistorted vertical and horizontal amplifiers. Vertical sensitivity, .1 rms to .15 rms volts/inch. Flat response, 5 cps to 500 kc. Useful to 2.5 mc. TV-type multivibrator sweep generator. Sweep range, 15 cps to 75 kc. Z-axis intensity modulation feature. Direct connection to CRT plates available at rear of cabinet. Dual positioning controls. 6.3 volt AC, 60 cyc., test signal output. Uses: 3-6SN7, 2-6J5, 2-5Y3, 5BPI C-R tube. For 105-125 v., 50-60 cyc. 68 watts. With diagrams, instructions, all parts, less solder. Size, 15x8⅞x17¾". Shipping weight, 28 lbs. Less leads.

62F750. Kit form. **NET** **44.95**

Model 425. As above, but factory-wired and tested. Wt., 28 lbs.

62F751. NET **79.95**

SCOPE PROBES

Model PSD. Scope demodulator probe. Shpg. wt., ¼ lb.

62F824. Kit. **NET** .... **3.95** **62F825.** Wired. **NET** **5.95**

Model PLC. A low capacity probe. Shipping weight, ¼ lb.

62F826. Kit. **NET** **3.95**

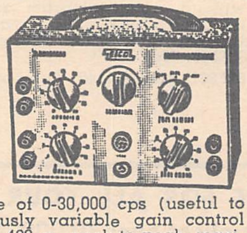
62F827. Wired. **NET** **5.95**

Model PD. A direct probe. Shipping weight, ¼ lb.

62F828. Kit. **NET** **2.75**

62F829. Wired. **NET** **3.95**

MODEL 488K ELECTRONIC SWITCH KIT

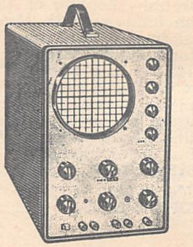


Allows simultaneous observation of 2 patterns on a single scope screen. Direct comparison of voltage and current amplitudes, waveforms, frequencies and phase relationship. Separate amplitude control for each pattern. Positioning control permits superimposing. Each of the 3 switching rate ranges is continuously variable. Low: 10-100 cps. Med: 50-400 cps, Hi: 250-2,000 cps. Sinusoidal frequency response of 0-30,000 cps (useful to 300,000 cps) at —2 db. Continuously variable gain control with negligible phase distortion. 400 v. peak-to-peak maximum input. Input imped. of 100,000 ohms. Output imped. 50,000 ohms. With all parts except leads. 6x6x6". 7 lbs.

62F830. Kit form. **NET** **23.95**

62F831. Model 488. Factory wired **39.95**

● *NEW* MODEL 427K ADVANCED GEN. PURPOSE 5" OSCILLOSCOPE KIT

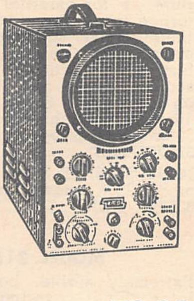


The Model 427K gen. purpose oscilloscope; 4-position frequency compensated vertical input attenuator. Internal calibration voltage. Astigmatism, Focus and Intensity Controls on panel. Sharp, clean trace free of blooming. Instantaneous, drift free V & H positioning. Vert amp direct-coupled and pushpull throughout (6 stages in 3-push-pull pairs). Vert Amp: Flat from DC to 500kc, —6db at 1 Mc; sensitivity 10mv p-p or 3.5mv rms/cm. Horiz. Amp: Flat from 2 cps to 450kc; sensitivity 0.5 v 6-6 or 0.18 v rms per cm. Sweep Circuit: Recurrent sweeps from 10 cps to 100 kc in 4 overlapping ranges: min ratio of forward sweep time to retrace time 15:1 sync may be int pos. int neg, 60 cps, or ext. Power Reg: 105-125 v 60 cps; 55W drain. Dim: 12½" x 8½" x 16⁷⁄₁₆". Kit is complete with all parts instructions and diagrams. Shpg. wt., 26 lbs.

62F885. NET **69.95**

62F886. Model 427. Factory wired and tested **109.95**

5" OSCILLOSCOPE KIT 460-K



Tops for color, black and white use. Flat from DC to 4.5 mc., usable to 10 mc., featuring DC amplifiers. Vert. Sens. 25 mv/in. push pull thru-out. Sweep freq.: 10 cps to 100 kc, low sweep with ext. condenser. Automatic sync limiter and amp. eliminates sync voltage adjustment. 60 cps variable phase sine sweep. Pre-set TV V&H filter screen with variable illumination. 4 freq. compensated attenuator positions up to 1000:1 on either direct or capacitive coupled input. On front: int. mod., saw tooth output, 60 cps, ext. sync., ext. cap. jacks. Power input required: 105-125 volts AC, 50-60 cycles. Less leads. Shipping wt., 29 lbs.

62F842. Model 460K. Kit. **NET** **79.95**

As above, but factory wired and tested. Shipping wt., 29 lbs.

62F843. Model 460. NET **129.50**

1171-K RESISTANCE DECADE BOX KIT

Model 1171-K

Permits changing resistance in a working circuit at the flip of a switch. May be used alone or in conjunction with the model 950-K RC bridge. Supplies resistance values from 0 to 99,999 ohms. Uses ½% resistors. Separate comparator position and binding posts permit instant substitution. Steel case, 3½x12x3". With diagrams, instructions and all parts; less solder and leads. Wt., 3 lbs.

62F795. NET **19.95**

62F802. Model 1171. As above, wired and tested. **NET** **24.95**

MODEL 1180-K CAPACITANCE DECADE BOX KIT

Has a range of 100 mmf to .111 mfd. Features ±1% silver mica condensers. High quality ceramic wafer switches, low-loss dielectric terminal board and 5-way binding posts. Rated at 500 VDC. Steel cabinet 9x3½x3½". Less solder and leads. Shpg. wt., 3 lbs.

62F797. NET **14.95**

62F798. Model 1180. As above, wired and tested. **NET** **19.95**

Newark Can Supply All Your Test Equipment

1120K CAPACITOR SUBSTITUTION BOX

Model 1120K

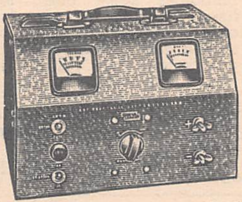
Enables rapid substitution of a wide range of RETMA capacitance values from .0001 to 0.22 mfd. in an operating circuit to determine value needed for optimum performance and to find value of badly damaged or illegible capacitors. Minimum accuracy 10%. Convenient 5-way, jack top binding posts. Size: 3¾" high x 6½" wide x 3½" deep. Shipping weight, 2 lbs. Less leads.

62F840. NET **5.95**

62F841. Model 1120. As above, but factory wired and tested. **NET** **9.95**

EICO TEST EQUIPMENT

MODEL 1060-K BATTERY ELIMINATOR AND CHARGER KIT

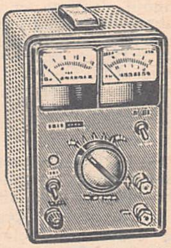


Battery substitute for operation and servicing of battery operated transistorized, also "hybrid" and vac.-tube equip. Two sep. meters: DC ammeter reading 0-20 amps. Has extra low ripple filter. Output 0-8V, 0-16V in two ranges, @ 10 amps continuous, 20 amps intermittent. Size: 8¾"x10½"x7¾". With instructions, less leads. 17 lbs.
62F852. NET........................**38.95**
Model 1060. As above but factory wired and tested.
62F853. NET 47.95

POWER AND BIAS SUPPLY

Model 1020. Includes a power transformer, full-wave silicon diode rectifier circuit, heavy R-C filtering, plus two power transistors in a unique cascaded filter circuit. Ripple is reduced to 1/200 of 1% at full load, a figure not approached by cheap devices. Provides continuously variable output voltage to 30 volts monitored by a dual range voltmeter (0-6, 0-30 VDC). Max. load current varies from 150 ma. in the 1-12V range to 300 ma. in the 24-30V range. ½ amp. fuse will blow in case of short to protect unit. Uses include entirely hum-free operation of the most sensitive transistor radios, hearing aids, preamp, instruments. As a variable bias supply for transistors or tubes in circuit development; to offset AVC and AGC voltages in the alignment of TV and radio receivers or to cut off the color burst amplifier in color TV adjustment. Grey wrinkle steel case. Size: 5x4x5½". Shipping weight, 5 lbs.
62F856. Model 1020K. Kit form. **NET**........................**19.95**
62F857. Model 1020. Factory Wired. **NET**........................27.95

MODEL 1064 BATTERY ELIMINATOR AND CHARGER



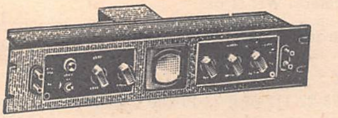
Model 1064. Battery eliminator and charger delivers smooth, undistorted DC necessary for servicing transistorized equip., or for any application where minimum ripple is essential. Handles the full continuous as well as the higher intermittent rated current output of the instrument, without danger of over-loading or burnout. Two DC voltage ranges: 0-8v. and 0-16v. Fused transformer primary. Simultaneous monitoring of both voltage and current on both ranges. Automatic switching of appropriate ammeter range as you select either of the 2 voltage ranges. Separate volt meter and dual-range ammeter for more accurate reading. 105-125v. AC, 50/60 cps; 150 watts. Grey steel cabinet. Size: 8½x5¾x7½". Wt., 14 lbs.
62F870. Model 1064K. Kit. **NET**........................**43.95**
62F871. Model 1064. Factory wired and tested. **NET**........................52.95

MODEL 1073 METERED VARIABLE AC BENCH SUPPLY

Metered variable bench supply features 0-140 VAC adjustable output voltage from 120 VAC power line input. No wave form distortion or sig. voltage drop from no load to full load. Freq.—60 cycles. Two ranges—0-1, 0-3 amp. ±3% accurate of full scale. Auto-transformer: 3 amp. slo-blo. Switching: POWER switch, 2-pole type, disconnects unit from both sides of power line at OFF position. RANGE switch selects lower or higher current range for ammeter. Range may be switched under load. Size: 8½x5¾x7". Shpg. wt., 12 lbs.

62F868. Model 1073K Kit........................**35.95**
62F869. Model 1073. As above, but wired and tested........................47.95

MILLEN TEST EQUIPMENT



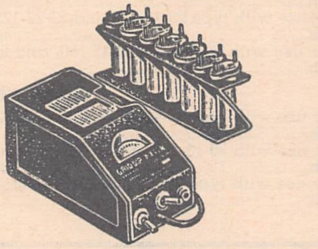
BASIC OSCILLOSCOPE UNITS

Millen's complete self-contained portable oscilloscopes or basic components for permanent incorporation into more specialized equipment. As transmitter modulation monitors, no additional equipment or accessories are required. The well known trapezoidal monitoring patterns are secured by feeding modulated carrier voltage from a pickup loop directly to the vertical plates of the cathode ray tube and audio modulating voltage to the horizontal plates. By the addition of such units as sweeps, pulse generators, amplifiers, servo sweeps, etc., all of which can be conveniently and neatly constructed on companion rack panels. The original basic scope unit can be expanded to serve any conceivable application. Sensitivity: vertical, 100 volts DC/inch; horizontal, 120 volts DC/inch. Controls: Intensity, Focus, Horizontal Centering, Vertical Centering, Power and Horizontal Input Selector. For 110-120 volts, 60 cycles AC. Less CR tube and rectifier. Shpg. wt., 13 lbs.

Model 90902. 2" scope. Size, 19x3½x9¼". Fits tube types 2BP1 or P11.
97F279. NET 55.00

Model 90903. 3" scope. Size, 19x5¼x13½". Fits tube types 3KP1, P4, P7, PH. **97F280. NET**........................60.00

Model 90905. 5" scope for 5UP1. Size, 19x7x16".
97F281. NET 125.00



GRID DIP METER

Model 90651. Uses the calibrated RF oscillator principle. 2" G.E. meter reads oscillator grid current. Common use: To find resonant freq of non-energized tuned circuits. Other uses: Receiver tuned circuit align., determination of transmitter tuned circuit freq. with power off, oscillating detector. Range: 1.7-300 mc. 105-125 v., 60 cps. Size, 7x3$\frac{3}{16}$x3⅜". Shpg. wt., 3½ lbs.
97F208. NET........................**64.50**
Type 46721. Link probe. 220kc to 65 mc.
97F231. NET 1.95

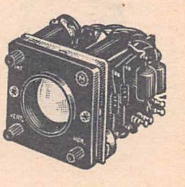
97F232. 46702 coil. 925-2000 kc.
97F233. 46703 coil. 500-1050 kc.
97F234. 46704 coil. 325-600 kc.
97F235. 46705 coil. 220-350 kc.

All coils listed above. **NET EACH**........6.72

BEZELS AND FILTERS FOR CR TUBE

Ideal for use with basic units at left. Made of black molded phenolic. With rubber cushion except*, green plastic filter scale and all necessary hardware. Wt., ½ lb.

No.	Type	For	NET
97F290	80071*	1" CR Tube	1.50
97F282	80072	2" CR Tube	1.80
97F283	80073	3"CR Tube	4.35
97F284	80075	5" CR Tube	8.40



1" OSCILLOSCOPE

90901. A miniature panel mounting basic cathode ray oscilloscope. Uses a 1CP1 CRT. Vertical deflection sensitivity of 1.7 volts r.m.s. per mm deflection and 4.7 volts peak to peak per mm deflection. Horizontal sensitivity is 2.5 volts r.m.s. per mm deflection and 6.9 volts peak to peak per mm deflection. The 1CP1 is a fixed focus tube so no focus control is required. Intensity and centering controls but no amplifiers, sweep, or power supply. Horizontal and vertical deflection sources, and heater and acceleration voltages are taken from equipment on which the scope is mounted. With tubes. 2¾x2¾x4⅝". 1 lb.
97F285. NET........................**49.95**

POWER SUPPLY FOR OSCILLOSCOPE

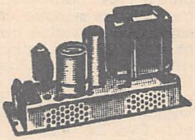
90202. Especially for use with model 90901. Input: 117 volts 50/60 cps. Output: 750 volts DC at 3 ma. and 6.3 volts AC at 600 ma. Octal plug for input and output. Entire assembly is encapsulated. Size: 2x2$\frac{13}{32}$x5" high. Wt., 1¾ lbs.
97F291. NET........................21.00

CATHODE RAY TUBE SHIELDS

No.	Type	For Tubes	NET
97F286	80042	2BP1	6.90
97F287	80043	3DP1 & 3BP1	9.70
97F288	80045	5BP1, 5GP1, 5HP1, 5NP1	18.90
97F289	80055	5CP1	18.90

SOLA REGULATED AC&DC POWER SUPPLIES

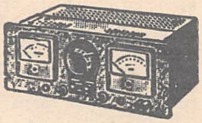
FIXED-CONSTANT VOLTAGE DC POWER SUPPLIES



Will withstand high transient overload without damage or noticeable output voltage drop. Self-protecting on continuous overload. Output voltage regulation ±1% or less over 100-130v. input range. All have 1% ripple except 281200 and 281250 which are ½%. Load regulation less than 4% from 20% to full load. Efficiency approx. 75%. Output impedance approx. .5 ohm. Barrier type terminal strip. Both sides of output float. Use as replacement of conventional or regulated supplies in existing equipment or as laboratory or production DC power source. All supplies mounted on standard 19" panel 5¼" high, depth 9¾", for rack mounting if desired. Protective iridite coating. Input 100-300 volts, 60 cycles AC.

Stock No.	Type No.	Output Volts	Output Amps.	Shpg. Wt. Lbs.	1-4	5-9	10-24
5F924	281024	24	6.0	47	**145.00**	**130.50**	**116.00**
5F925	281048	48	4.0	40	**135.00**	**121.50**	**108.00**
5F926	281125	125	2.0	47	**145.00**	**130.50**	**116.00**
5F927	281150	150	2.0	48	**145.00**	**130.50**	**116.00**
5F928	281200	200	1.0	41	**140.00**	**126.00**	**112.00**
5F929	281250	250	1.0	46	**150.00**	**135.00**	**120.00**

ADJUSTABLE CONSTANT VOLTAGE DC POWER SUPPLIES



Embodies same basic features as fixed supplies listed at left. Adjustable range controlled by built-in switch and variable transformer. On-off switch, fuse, pilot light, output jacks, volt and ammeter on panel. Output also on barrier strip with input at rear of chassis. All supplies mounted on grey hammertone finished standard 19'' panel, 7'' high, depth 12¼''. For rack mounting or portable use with attachable handles listed below. Wt., 80 lbs.

Stock No.	Type No.	Output Range	Rtd. Amp. LD Max. V.	Rtd. Amp. LD Min. V.	Rip. Volt.	1-4	5-9	10-24	25-49
5F933	285110	5-35	7.0	7.0	0.2%	**325.00**	**292.50**	**276.25**	**260.00**
5F934	285120	25-60	4.0	6.0	0.05%	**325.00**	**292.50**	**276.25**	**260.00**
5F935	285130	30-90	2.8	4.0	0.04%	**295.00**	**265.50**	**250.75**	**236.00**
5F936	285140	60-180	1.4	2.0	0.03%	**295.00**	**265.50**	**250.75**	**236.00**
5F937	285150	150-250	1.0	1.5	0.02%	**295.00**	**265.50**	**250.75**	**236.00**
5F938	285160	250-400	0.6	0.75	0.02%	**295.00**	**265.50**	**250.75**	**236.00**

CARRYING HANDLES

Detachable carrying handles for variable DC power supplies listed above. Shpg. wt., 5 lbs.
5F939. Type 999-006. **NET per pair**..........6.75

ADJUSTABLE SINUSOIDAL TYPE CVL-AC SUPPLY

Type 23-90-150. Similar in appearance to adjustable DC supply shown above. Has same characteristics as Sinusoidal type CVS Constant-Voltage Transformers with addition of the following features: Adjustable output from 0-130 volts from receptacle and jacks on front panel and from jacks at rear. Fixed 115 volts from receptacle on front panel. Voltage regulation on all outputs ±1% with less than 3% harmonic content. Output volt and ammeter (2% accuracy), on-off switch, fuse and variable transformer. Excellent as laboratory or production AC supply. Grey metallic finished standard 19 inch panel, 9" high, 12$\frac{11}{16}$" deep. Carrying handles listed above included at no charge for portable use, or handles can be removed for rack mounting. Input 100-130 volts, 60 cycles AC. Output capacity 500 VA with maximum current of 7.5 amperes. Shipping weight, 77 pounds.
5F995. NET..........**275.00**

FIG. F. CORD RECEPTACLE KITS

Fig. F

For converting Figures "A and B" units for accessory use. 5-foot cord and receptacle mounted on outlet box cover plate with knockout for toggle switch. Screw driver only tool required to install. Available in standard 2-wire and new 3-wire grounding types.

TWO WIRE TYPE

Type 999-004 for use with type 20-13-030, 20-13-060, 23-22-112, 23-13-060 and 20-13-112 transformers. 11 oz.
5F985. NET each..........1.75
Type 999-005 for use with type 20-13-115 and 23-22-125 transformers. Wt. 11 oz.
5F986. NET each..........1.75
Type 999-009 for use with 20-13-125, 20-13-150, and 23-22-150 transformers. Wt. 12 oz.
5F992. NET each..........2.00

THREE WIRE TYPE

Type 999-018 for use with type 20-13-030, 20-13-060, 20-13-112, 23-22-112 and 23-13-060 transformers. 12 oz.
5F996. NET each..........2.50
Type 999-019 for use with 20-13-115 and 23-22-125 transformers. Wt. 13 oz.
5F997. NET each..........2.50
Type 999-020 for use with type 20-13-125, 20-13-150 and 23-22-150 transformers. Wt. 14 oz.
5F998. NET each..........2.50

NEWARK REPAIR AND CALIBRATION SERVICE — METERS AND TEST EQUIPMENT

Send us your meters and test equipment for repair and calibration or modification. We can also build special test equipment—perform engineering services relative to general instrumentation.

We also make meter scales to order—new instruments—or instruments in service. We can also quote on special test equipment to build from prototype or drawing.

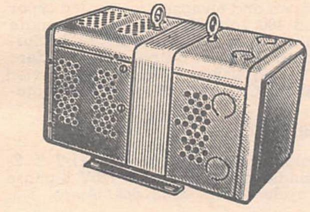
Let us also quote on repairing recording type instruments.

Our standard cells are constantly checked and certified by the National Bureau of Standards. Send your instruments, requests for quotation or information to

Newark Electronics
Meter Repair Division
1111 West Armitage
Chicago 14, Illinois

CONSTANT VOLTAGE TRANSFORMERS SOLA

NEW SOLATRON ELECTRONIC-MAGNETIC LINE VOLTAGE REGULATOR



- Up to 10 times faster than mechanical units
- 95% or better efficiency
- Smaller and lighter than mechanical units
- Correction without minimum signal

Uses silicon controlled rectifiers in electronic-magnetic circuit to provide regulation of ±1% for input changes of up to ±10%. Correction completed within approx. 10 cycles for 10% change in input voltage. High reliability, no maintenance. Withstands momentary overloads many times ratings. Input PF 90% min. for unity load PF. Harmonic content approx. 5%. For 40°C max. amb. temp. with Class B insulation. For 240 VAC input and output except * 120 VAC.

Stk. No.	Type	Size (in.)	KVA out.	Shpg. wt.	NET
5F554	31-13-250	16⅜x11x10⅞	5*	98 lbs.	**465.00**
5F555	31-21-250	16⅜x11x10⅞	5	98 lbs.	**465.00**
5F556	31-21-275	18⅜x11x10⅞	7.5	135 lbs.	**535.00**
5F557	31-13-275	18⅜x22x10⅞	15	270 lbs.	**685.00**

STANDARD SINUSOIDAL TYPE CVS HARMONIC-FREE

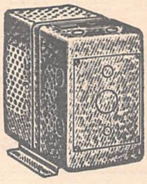


Fig. A

The Sola Constant Voltage Transformer is a static-magnetic voltage regulator designed to keep its output within ±1% with input variations up to ±15%. Completely automatic, no tubes, moving parts or manual adjustments. Current limiting characteristic protects transformer and its load equipment. All have new low stray-field design. Practical for most built-in applications. Harmonic content of output voltage wave is less than 3% total RMS at any load above 25% of rating. At lighter loads it never exceeds that of most public utility sources. May be used to provide a sine-wave source of stabilized voltage for the most exacting applications. All have screw type terminals in outlet box. Figure A and B units can be modified for accessory use by installing cord-receptacle kit listed below. All are 95-130 or 190-260 volts, 60 cycles, AC input and 118 volts output except *95-130 volts, 60 cycles input and 118 volts output. **95-130, 175-235 or 190-260 volts, 60 cycles, input with 118 and/or 236 volts output.

Stock No.	Mfrs. Type	Fig.	Output V.A.	Size	Wt. Lbs.	1-4	5-9	10-24	25-49
5F987	23-13-060	A	60*	6 15/16x4x5 3/16"	10	**30.00**	**27.00**	**25.50**	**24.00**
5F988	23-22-112	A	120	8x4x5 3/16"	14	**38.00**	**34.20**	**32.30**	**30.40**
5F943	23-22-125	A	250	9¾x5⅜x7 7/16"	28	**52.00**	**46.80**	**44.20**	**41.60**
5F944	23-22-150	B	500	12⅝x9x6 7/16"	47	**81.00**	**72.90**	**68.85**	**64.80**
5F945	23-22-210	B	1000	17 15/16x9x6 7/16"	80	**135.00**	**121.50**	**114.75**	**108.00**
5F993	23-25-220	C	2000**	19⅝x12¾x10 11/16"	215	**245.00**	....	....	....
5F994	23-25-230	C	3000**	21⅞x12¾x10 11/16"	192	**330.00**	....	....	....

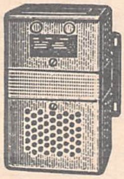


Fig. B

NORMAL HARMONIC TYPE

Embodies all the voltage stabilizing and other characteristics of the Standard Sinusoidal Type CVS listed above except output voltage wave shape is not sinusoidal. Average of 14% total RMS harmonic content in output voltage wave. Recommended for applications where sine wave voltage supply is known to be unnecessary, such as filament supplies, etc. All have screw type terminals in outlet box except Figures D and E. Figures A and B units can be modified for accessory use by installing cord-receptacle kit listed below. All are 95-130 volts, 60 cycle input except *95-130 or 190-260 volts, 60 cycles, **95-130 or 175-235 or 190-260 volts, 60 cycles, ***190-260 or 380-520 volts, 60 cycles.

6.0 SECONDARY VOLTAGE (CVF)

Stock No.	Mfrs. Type	Fig.	V.A.	Size	Wt. Lbs.	1-4	5-9	10-24	25-49
5F973	20-01-015	D	15	5 9/16x2⅝x3½"	6	**15.00**	**13.50**	**12.75**	**12.00**
5F717	20-06-015	E	15	4 5/16x2⅜x2 7/16"	4	**14.00**	**12.60**	**11.90**	**11.20**

6.3 SECONDARY VOLTAGE (CVF)

Stock No.	Mfrs. Type	Fig.	V.A.	Size	Wt. Lbs.	1-4	5-9	10-24	25-49
5F974	20-02-015	D	15	5 9/16x2⅝x3½"	6	**15.00**	**13.50**	**12.75**	**12.00**
5F718	20-04-015	E	15	4 15/16x2⅜x2 7/16"	4	**14.00**	**12.60**	**11.90**	**11.20**
5F976	20-04-030	E	31.5*	4 13/16x3⅛x3⅛"	6	**16.00**	**14.40**	**12.80**	**12.00**
5F977	20-04-065	E	63*	4 13/16x3⅛x3¾"	7	**20.00**	**18.00**	**16.00**	**15.00**
5F978	20-04-095	E	94.5*	4 13/16x3⅛x4 11/16"	11	**24.00**	**21.60**	**19.20**	**18.00**
5F979	20-04-113	E	126*	7x4½x5⅓"	20	**31.00**	**27.90**	**24.80**	**23.35**
5F980	20-04-116	E	157.5*	7x4½x5 11/16"	23	**35.00**	**31.50**	**28.00**	**26.25**

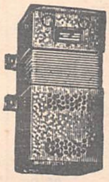


Fig. C

118 SECONDARY VOLTAGE (CVN)

Stock No.	Mfrs. Type	Fig.	V.A.	Size	Wt. Lbs.	1-4	5-9	10-24	25-49
5F989	20-10-015	D	15	5 9/16x2⅝x3½"	4	**15.00**	**13.50**	**12.75**	**12.00**
5F719	20-14-015	E	15	4 5/16x2⅜x2 7/16"	3	**14.00**	**12.60**	**11.90**	**11.20**
5F981	20-13-030	A	30	6x4x5 3/16"	7	**20.00**	**18.00**	**17.00**	**16.00**
5F953	20-14-030	E	30	4 5/16x2⅝x3 5/16"	5	**16.00**	**14.40**	**13.60**	**12.80**
5F982	20-13-060	A	60	6 13/16x4x5 3/16"	10	**25.00**	**22.50**	**21.25**	**20.00**
5F954	20-14-060	E	60	4 13/16x3⅛x3⅞"	8	**21.00**	**18.90**	**17.85**	**16.80**
5F983	20-13-112	A	120	7⅞x4x5 3/16"	13	**33.00**	**29.70**	**28.05**	**26.40**
5F955	20-14-112	E	120	4 13/16x3⅛x4 15/16"	11	**29.00**	**26.10**	**24.65**	**23.20**
5F984	20-13-115	A	150	8⅞x5⅜x7 7/16"	22	**40.00**	**36.00**	**34.00**	**32.00**
5F911	20-13-125	B	250	11⅛x6 15/16x6 7/16"	25	**49.00**	**44.10**	**41.65**	**39.20**
5F912	20-13-150	B	500	12½x6 15/16x6 7/16"	36	**77.00**	**69.30**	**65.45**	**61.60**
5F913	20-13-210	B	1000	15⅛x6 15/16x6 7/16"	54	**128.00**	**115.20**	**108.80**	**102.40**

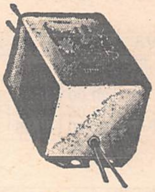


Fig. D

118 AND/OR 236 SECONDARY VOLTAGE

Stock No.	Mfrs. Type	Fig.	V.A.	Size	Wt. Lbs.	1-4	5-9	10-24	25-49
5F990	20-25-220	C	2000**	20x10½x9 1/16"	166	**232.00**	....	....	....
5F991	20-25-230	C	3000**	22x10½x10 11/16"	230	**315.00**	....	....	....
5F720	20-27-250	....	5000***	21x14½x14⅜"	279	**490.00**	....	....	....

FIG. E. REGULATED PLATE-FILAMENT POWER TRANSFORMERS

Low stray field, ideal for TV, Hi-Fi, industrial, amateur or broadcast use as built-in component. Has same characteristics as standard Type CVN above except secondaries regulated ±3% over 100-130 V; 60 cycle input. Separate capacitor with mounting brackets furnished. *Center-tapped. **Has additional 6.3 V, 8.0 amp. unregulated filament winding.

Stock No.	Mfrs. Type	DCV Input to Filter	Fil. 1		Fil. 2		Wt. Lbs.	1-9	10-49	50-99
			V	A	V	A				
5F960	CVE7104	275V @ 50MA	6.3*	2.5	5.0	2.0	6	**12.00**	**10.80**	**9.60**
5F961	CVE7106	385V @ 100MA	6.3*	3.0	5.0	2.0	8	**15.00**	**13.50**	**12.00**
5F962	CVE7107	380V @ 250MA	6.3**	4.0	5.0	3.0	19	**27.00**	**24.30**	**21.60**

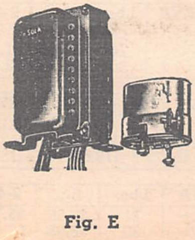


Fig. E

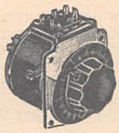
See Following Page For Cord Receptacle Kits

SUPERIOR TRANSFORMERS

SUPERIOR POWERSTAT VARIABLE VOLTAGE TRANSFORMERS

Rotation of brush tap delivers a continuously-adjustable voltage from a-c power lines over range from zero to or above line voltage. Manually operated, open and enclosed air-cooled types are available for 120, 240 and 480 volt, 25, 50/60 cycle, single and three phase service in rating from 132 VA to 217 KVA. Current rating available over entire range of output voltage. Zero waveform distortion, negligible maintenance, gold alloy plated commutator, excellent regulation. Complete POWERSTAT catalog on request.

Type 10B


Type 21

Type 116, 117, 216, 217

SERIES 10B

Type 2PF10 is encased, all others open. Type 10B is single unit, 10B-2 is two-gang for either 240V, single-phase or 120V, †3-phase operation. 10B-3 is 3-gang, wye connected for 240V, 3-phase operation. *60 cps. #50/60 cps. all rated 1.75 amps except 2PF10 1.0 amp.

Stk. No.	Type	Volts	KVA	Lbs.	Dia. x Lt.	1-11	12-99
5F893	2PF10	0-132*	.132	3.3	3½x3⅜″	16.50	14.03
5F800	10B	0-120#	.30		2 3/16x2 1/16″	8.50	7.23
		0-132*	.23	2.4			

Stk. No.	Type	Volts	KVA	Lbs.	Dia. x Lt.	Ea.	2-49
5F775	10B-2	0-240#	.60		3⅞x5⅛″	22.50	21.25
		0-264*	.46				
		0-120#†	.52				
		0-132*†	.40	5.6			
5F724	10B-3	0-240*	1.00	8.3	3⅞x8⅛″	36.00	34.00

SERIES 116

All 120V input except #240V. "U" types open for panel mtg.—all others encased for wall or bench mtg. Types ending in -2 are 2-gang, those ending in -3 are 3-gang. D—Delta-wired, Y—Wye-wired, S—Series-wired. Type 3PF have polarized 3-blade plug; 3PN, NEMA std. 3-blade plug; 3TF, 3-blade twist-lok plug; 2PF, std. 2-blade plug. 7.5 Amps. All units approx. 6″ deep per gang. 4⅝″ dia. except sq. units 4¼″ sq. All 50/60 cps., except 116T-3 and 116U-3, 60 cps. Shpg. wt., 12 lbs.

Stk. No.	Type	Volts	Phase	KVA	1-11	12-99
5F801	116	0-140	1S	1.0	24.00	20.40
5F726	116L	0-120	1S	.9	24.00	20.40
5F728	3PF116	0-140	1S	1.0	30.00	25.50
5F858	3PN116L	0-120	1S	.9	27.50	23.38
5F857	3PN116	0-140	1S	1.0	27.50	23.38
5F729	3TF116	0-140	1S	1.0	30.00	25.50

Shpg. wt. of all above, 12 lbs.

Stk. No.	Type	Volts	Phase	KVA	Ea.	2-49
5F777	116T-2	0-280#	1S	2.1	48.60	45.90
		0-240#	1S	1.8		
		0-140	3D	1.8		
		0-120	3D	1.6		
5F790	116T-3	0-280#	3Y	3.6	69.30	64.45
		0-240#	3Y	3.1		
5F733	116U-2	0-280#	1S	2.1	40.05	37.83
		0-240#	1S	1.8		
		0-140	3D	1.8		
		0-120	3D	1.6	33.30	31.45
5F734	Q116U-2	Same as rnd. 116U-2 ex. sq.				
5F736	116U-3	0-280#	3Y	3.6	55.35	52.28
		0-240#	3Y	3.1		
5F737	Q116U-3	Same as rnd. 116U-3 ex. sq.			52.20	49.30
5F738	Q116UM-3	Same as Q116U-3 ex. Mil. type			60.30	56.95

Shpg. wt. for 116T-2, 24 lbs.; 116T-3, 36 lbs.; 116U-2, 21 lbs.; 116U-3, 30 lbs.

Stk. No.	Type	Volts	Phase	KVA	1-5	6-24	25-99
5F807	116U	0-140		1.0			
		0-120		.9	18.00	16.20	15.30
5F731	Q116U	Same as rnd. 116U ex. sq.			16.00	14.40	13.60
5F732	Q116UM	Same as Q116U ex. Mil. type			19.00	17.10	16.15

Shpg. wt. of above: 11 lbs. All single phase.

Stk. No.	Type	Volts	Phase	Lbs.	1-5	6-24	25-99
5F839	117T	0-120	1S	12	22.50	20.25	19.13
					1-11	12-99	
5F739	2PF117	Xfmr same as 117			28.00	23.80	....
5F740	3PN117	Xfmr same as 117			31.50	26.78	....

KVA all; 1.6, cps. all 60.

Stk. No.	Type	Volts	Phase	KVA	Ea.	2-49
5F741	117T-2	0-240#	1S	3.1		
		0-120	3D	2.7	49.50	46.75
5F742	117T-3	0-240#	3Y	5.4	70.65	65.73

Stk. No.	Type	Volts	Phase	KVA	1-5	6-24	25-99
5F743	117U	0-120	1S	1.6	18.50	16.65	15.73
5F744	Q117U	Same as rnd. 117U ex. sq.			16.50	14.85	14.03

All 60 cps. Shpg. wt., 24 lbs.

Stk. No.	Type	Volts	Phase	KVA	Ea.	2-49
5F746	117U-2	0-240#	1S	3.1		
		0-120	3D	2.7	40.95	38.68
5F747	Q117U-2	Same as rnd. 117U-2 ex. sq.			34.20	32.30
5F749	117U-3	0-240#	3Y	5.4	56.70	53.55
5F663	Q117U-3	Same as rnd. 117U-3 ex. sq.			53.55	50.58

All 60 cps. Max. for const.-cur. load KVA shown max for const.-imp. load.

SERIES 21

New series with compact design. Open construction. 21-2 is 2-gang, 21-3 is 3-gang. 120V, single phase except † 120V 3-phase and ‡ 240V 3-phase. 50/60 cycle except #60 cps. Amps. 5.5. except (*) 3.75.

Stk. No.	Type	Volts	KVA	Depth	Dia.	1-5	6-24	25-99
5F809	21	0-120	0.66					
		0-140*	0.53	4 13/16″	5⅞″	12.50	11.25	10.63

Shpg. wt.. 6 lbs.

Stk. No.	Type	Volts	KVA	Dept.	Dia.	Ea.	2-49
5F776	21-2	0-240	1.3	9″	5⅞″	33.30	31.45
	*	0-280	1.0				
		0-120†	1.1				
	*	0-140†	0.91				
5F725	21-3	0-240‡	2.3	12 7/16″	5⅞″	53.55	50.58
	*	0-280‡#	1.8				

Shpg. wt. 5F776, 12 lbs.; 5F725, 17 lbs.

SERIES 216

"U" types open for panel mtg.—all others encased for wall or bench mtg. Types ending in -2 are 2-gang, those ending in -3 are 3-gang. D—Delta-wired, S—Series-wired, Y—Wye-wired. Type 3PF have polarized 3-blade plug; 3PN have NEMA std. 3-blade plug; 3TF have 3-blade twist-lok plug; 2PF have std. 2-blade plug. 3 amps. except *4 amps. †Current shown max. for const.-cur. load, KVA shown max. for const.-imp. load. #Max. KVA at max. output voltage. **Input 120V. ##Input 240V. ‡Input 480V. All units approx. 6″ deep per gang. 4⅝″ dia., except sq. units are 4¼″ sq.

Stk. No.	Type	Volts	Phase	KVA	1-11	12-99
5F802	216	0-280##	1S	.84		
		0-280**	1S	#.35	26.00	22.10
5F669	3PN216	Xfrmr. same as 3PF216			30.00	25.50
5F671	3TF216	Xfrmr. same as 3PF216			33.00	28.05

Shpg. wt., 12 lbs.

Stk. No.	Type	Volts	Phase	KVA	Ea.	2-49
5F795	216T-3	0-560##	3Y	#1.2		
		0-560‡	3Y	2.9		
		0-480‡	3Y	2.5	74.70	70.55
5F675	216U-2	0-560##	1S	# .71		
		0-560‡	1S	1.7		
		0-480‡	1S	1.4		
		0-280**	3D	# .61		
		0-280##	3D	1.5		
		0-240##	3D	1.2	44.10	41.65
5F676	Q216U-2	Same as rnd. 216U-2 ex. sq.			36.90	34.85
5F678	216U-3	0-560##	3Y	#1.2		
		0-560‡	3Y	2.9		
		0-480‡	3Y	2.5	62.55	59.08
5F679	Q216U-3	Same as rnd. 216U-3 ex. sq.			57.60	54.40

Shpg. wt. 5F795, 36 lbs.; 5F675 and 5F676, 21 lbs.; 5F678 and 5F679, 30 lbs.; 5F781, 24 lbs.

Stk. No.	Type	Volts	Phase	KVA	1-5	6-24	25-99
5F672	216U	0-280**	1S	#.35			
		0-280##	1S	.84			
		0-240##	1S	.72	20.00	18.00	17.00
5F673	Q216U	Same as rnd. 216U ex. sq.			18.00	16.20	15.30
5F674	Q216UM	Same as Q216U ex. Mil. type			21.00	18.90	17.85

Shpg. wt., 11 lbs.

SERIES 217

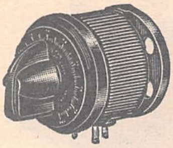
Stk. No.	Type	Volts	Phase	KVA	Lbs.	1-11	12-99
5F681	2PF217	0-240##	1S	†1.5	12	28.00	23.80

Stk. No.	Type	Volts	Phase	KVA	Lbs.	Ea.	2-49
5F683	217T-2	0-480†	1S	†3.0	24		
		0-240##	3D	†2.6	24	54.00	51.00
5F684	217T-3	0-480†	3Y	†5.2	36	77.40	73.10

Stk. No.	Type	Volts	Phase	KVA	Lbs.	1-5	6-24	25-99
5F856	217T	0-240##	*1S	†1.5		25.00	22.50	21.25
5F685	217U	0-240##	*1S	†1.5		21.00	18.90	17.85
5F686	Q217U	Same as rnd. 217U ex. sq.				18.50	16.65	15.73

Stk. No.	Type	Volts	Phase	KVA	Lbs.	Ea.	2-49
5F689	Q217-U-2	0-480‡	1S#	3.0†	21	37.80	35.70
5F692	Q217-U-3	0-480‡	3Y#	5.2†	30	58.95	55.68

SUPERIOR TRANSFORMERS–REGULATORS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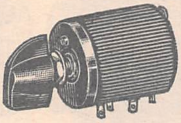
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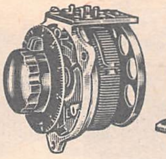
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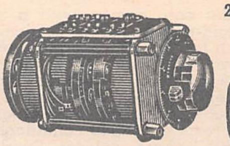
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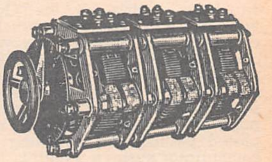
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POWERSTAT VARIABLE TRANSFORMERS FOR 400/800 CYCLE SERVICE

For high-frequency uses in aircraft, ships, missiles, and industry. Single- and three-phase 400/800 cycle, manual and motor-driven air-cooled 28-, 120-, and 480-v models in 56 VA to 8.7 KVA ratings. Perform same tasks as conventional 60-cycle units but weigh ⅓ as much and occupy ½ the space. Operate at —55° to +40° ambient at full rated load (reducing to +80°C); altitudes to 50,000 ft.: up to 95% rel. humidity; vibration, shock and inclination per MIL-T-17113; corrosion resistance per QQM-151-A and other military specs. Types HL and HMS units available with either 28-vdc or 120-v, 400-cycle AC motors with std. speed of 60 sec. for full range travel. Manual units knob-operated, but screw-driver slot method of turning optional for HS and HMS single phase. Open construction unless specified * enclosed. † indicates square frame construction. Specify mtg. when ordering.

FOR 28, 120- AND 240-VOLT SINGLE-PHASE SERVICE

Stk. No.	Type	Line Volt.	Output			Wt. Lbs.	1-5	6-24	25-99
			Volts	Amps.	KVA				
5F860	3HS02UK	28	0-28	2.0	.056	0.9	20.00	18.00	17.00
5F861	3HS02CK*	28	0-28	2.0	.056	0.9	22.00	19.80	18.70
5F862	3HS04UK	28	0-28	4.0	.112	1.2	22.00	19.80	18.70
5F863	3HS04CK*	28	0-28	4.0	.112	1.2	24.00	21.60	20.40
5F864	1HS01UK	120	0-120/140	1.0	.14	1.3	14.50	13.05	12.33
5F865	1HS01CK*	120	0-120/140	1.0	.14	1.4	20.00	18.00	17.00
5F866	1RHS03UK	120	0-28	2.6	.073	1.0	34.00	30.60	28.90
5F867	1HMS03UK†	120	0-120/140	3.0	.42	2.8	15.50	13.95	13.18
5F868	1HMS07UK†	120	0-120/140	7.5	1.0	3.8	20.00	18.00	17.00
5F869	1HMD07UK	120	0-120/140	7.5	1.0	4.2	20.00	18.00	17.00
5F870	1HMD07CK*	120	0-120/140	7.5	1.0	4.7	22.00	19.80	18.70
5F871	1HL15UK	120	0-120/140	15.0	2.1	14.0	50.00	45.00	42.50
5F872	2HMS03UK†	240	0-240/280	3.0	.84	3.8	22.50	20.25	19.13
5F874	2HMD03CK*	240	0-240/280	3.0	.84	4.7	24.50	22.05	20.83
5F875	2HL09UK	240	0-240/280	9.0	2.5	15.4	50.00	45.00	42.50

FOR 240- AND 480-VOLT THREE-PHASE SERVICE

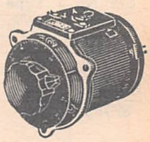
Stk. No.	Type	Line Volt.	Output			Wt. Lbs.	1	2-49
			Volts	Amps.	KVA			
5F876	2HMS03UK-3Y†	240	0-240/280	3.0	1.5	8.5	44.55	42.08
5F877	2HMS07UK-3Y†	240	0-240/280	7.5	3.6	11.6	60.30	56.95
5F878	2HL15UK-3Y	240	0-240/280	15.0	7.3	41.0	126.00	119.00

MULTI-PURPOSE POWERSTAT

Type 5-1011. Miniaturized for 400/1600 cycles, 1 phase service has connections for use as limited range variable transformer, low voltage output variable transformer, and line corrector. As limited range variable transformer with 115-volt input, may connect for output of 83-113 v., 2.6 amp., 0.29 max. KVA; 98-130 v., 2.6 amp. 0.34 max. KVA; or 116-149 v. 2.6 amp., 0.39 max. KVA. As low voltage output variable transformer with 115 v. input may connect for an output of 0-26 v., 2.6 amp., 0.068 max. KVA. As line corrector may connect to correct to output of 115 volts, 2.6 amp., 0.30 max. KVA from input of 90-113 volts, 104-133 volts or 117-149 volts. Only 1 13/16" in dia., 2 11/16" depth behind panel. Wt., 1 lb.

Stk. No.	Type	1-5	6-24	25.99
5F894	5-1011	33.00	29.70	28.05

40 VOLT POWERSTATS



Meets high current, low voltage power supply applications. Manual type with open construction. Input: 40 V, 60 cps. Output: 0-40 V.

Stk. No.	Type	Max		1-5	6-24	25-99
		Amps.	KVA			
5F754	10B-40	6	.24	10.00	9.00	8.50
5F755	21-40	15	.6	14.50	13.05	12.33
5F756	116U-40	25	1.0	20.50	18.45	17.43

Model LW136

Type EN

VARIABLE TRANSFORMER WITH ISOLATED SECONDARY

Powerstat type LW-136 is a double wound assembly with an isolated secondary on a single core. The one phase unit can be connected for either 120-volt or 240-volt, 50/60 cycle input and can be used as a source of 0-30 volts isolated output; either a 120-volt or 240-volt line corrector; or either a 120-volt or 240-volt limited range "buck-boost" variable transformer. The three-phase, three-gang unit can be connected for either 240-volt or 480-volt, 60-cycle input and can be used as a source of 0-60 volts isolated output; either a 240-volt or 480-volt line corrector; or either a 240-volt or 480-volt limited range "buck-boost" variable transformer. Gray enamel finish. Shpg. wt., LW136—25 lbs. LW136-3—77 lbs.

MODEL LW136—FOR 50/60 CYCLE, 1-PHASE SERVICE

Stk. No.	Line Volt.	Output		KVA	1-5	6-24	25-99
		Volts	Amps				
5F881	120	0-30	25	.75	80.00	72.00	68.00
	120	15-0-15	35	.52			
	240	0-30	25	.75			
	240	15-0-15	35	.52			
	120	105-135	35	4.7			
	107-137	120	35	4.2			
	240	225-255	35	8.9			
	226-256	240	35	8.4			

MODEL LW136-3—FOR 60 CYCLE, 3-PHASE SERVICE

Stk. No.	Line Volt.	Output		KVA	NET
		Volts	Amps		
5F889	240	210-270	35	16.4	260.00
	219-264	240	35	14.6	
	480	450-510	35	30.9	
	452-512	480	35	29.1	

SUPERIOR TYPE UC1M VOLTBOX

Type UC1M. Voltbox. For AC variable voltage testing up to 7.5 amps. Has Powerstat, direct reading voltmeter. Input: 120 volts, 50/60 cycles. Output: 0-140 volts, 1.0 KVA. Includes renewable fuse, 6-foot cord-plug. Size: 7⅞x8½". Sh. wt., 17 lbs.

Stk. No.	Type	1-5	6-24	25-99
5F820	UC1M	65.00	58.50	55.25

SUPERIOR POWERSTAT VARIABLE VOLTAGE TRANSFORMERS

Rotation of brush tap delivers a continuously-adjustable voltage from a-c power lines over range from zero to or above line voltage. Manual and motor-driven, open and enclosed air-cooled types are available for 120, 240 and 480 volt, 25, 50/60 cycle, single and three phase service in rating from 1.4 KVA to 1.8 KVA. Current rating available over entire range of output voltage. Zero waveform distortion, negligible maintenance, gold-alloy plated commutator, excellent regulation Complete POWERSTAT catalog on request. ††Uncased.

FOR 120 VOLT, 50/60 CYCLE SINGLE PHASE

Stk. No.	Mfr's Type	OUTPUT			Wt. lbs.	1-5	6-24	25-99
		Volts	Amps.	KVA				
5F766	126	0-140	12.5	1.8	15	35.00	31.50	29.75
5F767	126U††	0-140	12.5	1.8	14.5	31.00	27.90	26.35
5F768	226	0-280	6.0	1.7	15	35.00	31.50	29.75
5F769	226U††	0-280	6.0	1.7	14.5	31.00	27.90	26.35

EN TYPE

Variable Transformers. Deliver continuously adjustable voltage from a-c power lines. Wide flexibility in application and mounting position. May be bench, floor, wall, front-of-panel or back-of-panel mounted. Rugged enclosures are dust-tight for operator and unit protection but also easily removable for easy inspection. Single units below. 6 13/16Hx5¾Wx6"D. Wt., 15 lbs.

Stk. No.	Mfr. Type	Input		OUTPUT			1-5	6-24	25-99
		V.	Freq.	V.	Amp.	KVA			
5F835	EN116	120	50/60	0-140	6.5	.91	25.00	22.50	21.25
5F836	EN117	120	60	0-120	12.5	1.5*	25.50	22.95	21.68

*Current & KVA max. for constant impedance loads.

SUPERIOR TRANSFORMERS AND MOTORS

POWERSTAT—Variable Transformers

An autotransformer of toroidal core design with a movable brush-tap riding on the Gold-plated bared portion of the winding. Rotation of the brush-tap by either manual or motor-driven means delivers any voltage in the range from 0 to or above line voltage. Negligible variation in output voltage from no-load to full-load current. Very low watt loss. Output voltage continuously adjustable. Reliable performance over extended periods of time even under extreme operating conditions. Operating temp. rise is less than 50°C above ambient. Special Gold plated plating and polishing process produces a glass-smooth commutator surface which is forever free of oxides.

Max. output amps 9.0 50/60 cycles except (*) 60 only. Can be panel mounted, wall or bench mounted. 236 has binding post terminals. (F) with fuses in the output brush leads and terminal boards enclosed. Knockouts in enclosures permit wiring with BX or equivalent. (T) terminal boards enclosed. Knockouts in enclosures permit wiring with BX or equivalent. (2PF) parallel blade plug. (2TF) 2-blade twist lock plug. (3PF) polarized 3-blade plug. (3PN) standard 3-blade plug. (3TF) polarized 3-blade twist lock plug. (-2) 2-gang. (-3) 3-ganged. Single phase except where otherwise noted.

236 SERIES

Stk. No.	Type	Output			Wt. Lbs.	1-5	6-24	25-99
		Inp. V.	V.	Max. KVA.				
5F813	236	120	0-280	1.1	25			
		240	0-280	2.5	25			
		240	0-240	2.2	25	50.00	45.00	42.50

Stk. No.	Type	Output			Wt. Lbs.	1-11	12-99
		Inp. V.	V.	Max. KVA.			
5F624	2PF236	....	Same as 236		27	65.00	55.25
5F628	2TF236	....	Same as 236		27	65.00	55.25

Stk. No.	Type	Description	Wt. Lbs.	1-5	6-24	25-99
5F623	F236	Same as 236	26	55.00	49.50	46.75

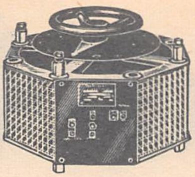
Stk. No.	Type	Phase	In. V.	Output		Wt. Lbs.	Ea.	2-49
				Volts	Max. KVA.			
5F782	236-2	1 series	240	0-560	2.1	52		
		1 series	480	0-560	5.0	52		
		1 series	480	0-480	4.3	52		
		3 delta	120	0-280	1.8	52		
		3 delta	240	0-280	4.4	52		
		3 delta	240	0-240	3.7	52	105.30	99.45
5F796	236-3	3 WYE	240*	0-560	3.7	76		
		3 WYE	480*	0-560	3.7	76		
		3 WYE	480	0-480	7.5	76	153.00	144.50
5F631	236T-3	Same as 236-3				77	166.50	157.25
5F632	F236-3	Same as 236-3				77	166.50	157.25

SERIES 1156D

Max. amps output 45.0

Stk. No.	Type	Phase	In. V.	Output		Wt. Lbs.	Ea.	2-49
				Volts	Max. KVA.			
5F808	1156D	1	120	0-140	6.3	79	118.00	100.30
5F779	1156D-2S	1	240	0-280	12.6	152	234.90	221.85
5F794	1156D	3 WYE	240	0-280	21.8	225	354.60	334.90

Type 136
Type 236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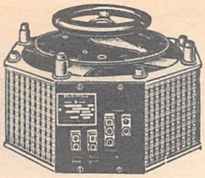

Type 1256D

136 SERIES

20 Amps output except #40 120V input except (*) 240V CPS. 50/60. except (+) 60.

Stk. No.	Type	Volts	KVA	Lbs.	1-5	6-24	25-99
5F812	136	0-140	2.8	25			
		0-120	2.4	25	50.00	45.00	42.50

Stk. No.	Type	Volts	KVA	Lbs.	1-11	12-99
5F696	2PF136	Same as 136		27	65.00	55.25
5F697	2TF136	Same as 136		27	65.00	55.25
5F698	3PF136	Same as 136		27	65.00	55.25
5F699	3PN136	Same as 136		27	65.00	55.25
5F617	3TF136	Same as 136		27	65.00	55.25

Stk. No.	Type	Description	Lbs.	1-5	6-24	25-99
5F694	136T	Same as 136	26	55.00	49.50	46.75
5F695	136T	Same as 136	26	55.00	49.50	46.75

Stk. No.	Type	Volts	Phase	KVA	Lbs.	Ea.
5F778	136-2	0-140	1P#	5.6	52	117.00
		0-120	1P#	4.8	52	
		0-280*	1S	5.6	52	
		0-240*	1S	4.8	52	
		0-140	3D	4.8	52	
		0-120	3D	4.2	52	

Stk. No.	Type	Volts	Phase	KVA	Lbs.	Ea.	2-49
5F619	F136-2	Same as 136-2			53	105.30	99.45
5F792	136-3+	0-280*	3Y	9.7	76	114.30	107.95
		0-240*	3Y	9.7	76	153.00	144.50
5F621	F136-3	Same as 136-3			77	166.50	157.25

SERIES 1256D

Max. amps. output 28.0 except (+) 56.0 50/60 cps all one phase; 1256D-2P Parallel, 1256D-2S series. ....

Stk. No.	Type	In. V.	Output		Wt. Lbs.	Ea.	2-49
			Volts	Max. KVS			
5F806	1256D	240	0-280	7.8	79	118.00	100.30
5F780	1256D-2P+	240	0-280	15.7	160	242.10	228.65
5F783	1256D-2S	120	0-280	6.6	160	234.90	221.85

PARALLELING CHOKE

5F635. Type T5000. For 136-2 and 236-2. **EACH 11.70 2-49 11.05**

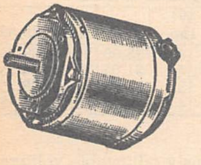
TRANSFORMER REPLACEMENT BRUSHES

Stk. No.	Type	Series	1-5	6-24	25-99
5F703	RB-10B	10B	1.00	.90	.85
5F704	RB-21	21	1.00	.90	.85
5F705	RB-116	116	1.25	1.13	1.06
5F706	RB-117	117	1.25	1.13	1.06
5F707	RB-216	216	1.25	1.13	1.06

Stk. No.	Type	Series	1-5	6-24	25-99
5F709	RB-1126	1126	2.25	2.03	1.91
5F710	RB-1226	1226	2.25	2.03	1.91
5F711	RB-136	136	1.75	1.57	1.49
5F712	RB-236	236	1.75	1.57	1.49

Stk. No.	Type	Series	1-5	6-24	25-99
5F713	RB-1156	1156	3.00	2.70	2.55
5F714	RB-1156-B	1156C	3.00	2.70	2.55
5F715	RB-1256	1256	3.00	2.70	2.55
5F716	RB-1256-B	1256C	3.00	2.70	2.55

SLO-SYN MOTORS



Enclosed, permanent magnet type synchronous AC motor, which is compactly engineered for heavy duty continuous operation. Combines low speed with torque. Can be used for instant reversing. Starts or stops in under .025 sec. or approx 1.5 cycles. Rated for 50°C temp. rise at 40°C maximum ambient under continuous duty. Types followed by RC indicate built-in, enclosed R-C network for phase shift operation. 120 volts 40/70 cycles. Shipping weight, 6½ lbs.

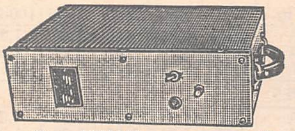
Stk. No.	Type	Speed (RPM)	Torque	1-5	6-24	25-99
5F847	SS50*	72.000	50	36.00	32.40	30.60
5F849	SS50P1	16.6	120	46.00	41.40	39.10
5F844	SS150	72.000	150	45.00	40.50	38.25
5F636	SS150-P2	3.323	2000	55.00	49.50	46.75
5F637	SS150-P3	.665	2000	65.00	58.50	55.25
5F638	SS150-P4	.133	2000	75.00	67.50	63.75
5F639	SS150-P5	.027	2000	85.00	76.50	72.25
5F640	SS150-RC	72.000	150	54.00	48.60	45.90
5F641	SS150-P2-RC	3.323	2000	64.00	57.60	54.40

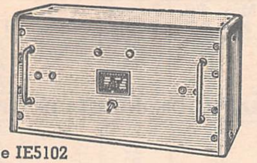
Stk. No.	Type	Speed (RPM)	Torque	1-5	6-24	25-99
5F642	SS150-P3-RC	.665	2500	74.00	66.60	62.90
5F643	SS150-P4-RC	.133	2500	84.00	75.60	71.40
5F644	SS150-P5-RC	.027	2500	94.00	84.60	79.90

Stk. No.	Type	Description	1-5	6-24	25-99
5F845	R-SS50/ SS150	Auxiliary resistor for above 250 ohms 25 watts	1.25	1.12	1.06
5F846	C-SS150	Auxiliary capacitor for above 3.3 mfd. 330 VAC	3.50	3.15	2.98
5F848	C-SS50	Capacitor for SS50 2.6 mfd.	4.50	4.05	3.87

SUPERIOR REGULATORS & TRANSFORMERS

"STABILINE" AUTOMATIC VOLTAGE REGULATORS


Type IE51002


Type IE5102

Type IE. (Instantaneous Electronic).—Completely electronic automatic voltage regulator with no moving parts. Offers instantaneous correction of line voltage variations, waveform distortion not exceeding 3% and excellent stabilization and regulation. Use when instantaneous correction and very close control is essential.

Type IE51002. Nominal output of 115 volts with an input voltage range of 95-135 volts. Maintains a constant output voltage regardless of line fluctuations. Output can be set to any value between 110 and 120 volts. Has a load range of 0-2.2 amps., and a rated output of 0.25 KVA. All necessary controls on front panel. OP connections to receptacle or binding posts. Rugged gray epoxy finish cabinet with leather carrying handle. Complete with 6 foot AC cord-plug. Size: 18"H x 5¾"W x 12½"D. Shpg. wt., 49 lbs.

5F817. NET Each **310.50**
2-49 .... 293.25

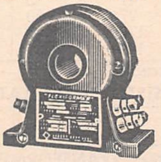
Type IE5101. Designed to operate on 115 volt, 60 cycle single phase source with output adjustable to values in the range of 110-120 volts. Maintains a constant output to within ±0.1 of 1% for line variations; to within ±0.15 of 1% for any load current change or load power factor change from 0.5 lagging to unity. Waveform distortion never exceeds 3%. Has load range of 0-8.5 amps. and rated output of 1.0 KVA. All controls located on front panel, input and output connections are made at rear. Housed in cabinet 19½"Wx10¼"Dx11"H. Shpg. wt., 92 lbs.

5F816. NET Each **387.00**
2-49 .... 365.50

Type IE5102. Maintains constant output voltage regardless of load or line changes. Recovery time can be considered instantaneous. The nominal output is 115 volts with an input voltage range of 95-135 volts. The output can be set to any value between 110-120 volts. Has a load range of 0-22.0 amps and a rated output of 2.5 KVA. Operates at a frequency of 60 cps ±10%. All controls are located on front panel with input and output terminals at rear.The cabinet has a gray epoxy finish. Remote sensing plug isbuilt in. Size: 20½" wide x 12⁹⁄₃₂" high x 16⅛" deep. Shpg. wt., 188 lbs.

5F633. NET Each **594.00**
2-49 .... 561.00

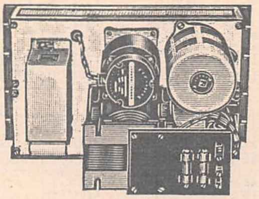
FLEXIFORMER PACKAGED TRANSFORMER PRIMARY—Model TP150



- **A "Wind your own secondary" Transformer**
- **A Current Transformer**
- **A Multiple Source of A-C Voltages**

This transformer is a self-contained toroidal primary coil complete with Superior 5-way binding posts for connections. The binding posts are colored for relative polarity identification. The primary consists of a strip-wound silicon steel core having a coil of 400 turns of copper wire. When used as a source of a-c voltage, the center opening permits hand winding of the proper number of secondary winding turns to obtain the desired output voltage. They are especially useful when high amperage at low voltage is required. Flexiformers are versatile laboratory and shop apparatus. Can be used for testing the current carrying capacity of contacts, connectors, relays, circuit breakers, fuses, etc. Type TP150 has an input rating of 120 volts, 50/60 cycles single phase and an output rating of 150VA. Voltage of the secondary is proportional to the number of turns handwound through the center opening and can be higher or lower than the primary voltage. As current transformer, maximum primary current is 400 amperes with 400/1 primary to secondary ratio. Has durable high impact plastic case molded over the internal coil. Gold plated binding posts are integrally mounted on ¾" centers. Size: 6"L. x 5¾"H. x 4⅜"W. Shpg. wt., 6 lbs.

5F770. 1-11 .... **25.00**
12-99 .... 21.25


EMT4102R

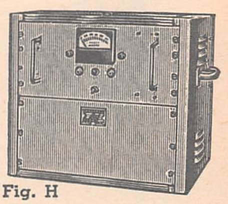


Fig. H

Type EMT. An electro mechanical transistorized device with a very sensitive detector controlling a motor-driven Powerstat variable transformer and auxiliary transformer. Usual application of a type EMT is the control of industrial loads. However, it is being used more in today's electronic equipment where zero waveform distortion is essential.

Type EMT4102R. A new rack mounting unit designed to operate on a nominal 115 volt, single phase, 50-60 cycle power line. Input voltage 95-135 volts; output range 110-120 volts. Speed correction for a variation in the output is .075 sec/volt. Output current rating of 0-17.5 amps and rated output of 2.0 KVA.—Transistorized—Input and output connections at rear of unit. A 4" meter indicates output voltage., 10½"H x 19"W. x 12⁹⁄₁₆"D. Shpg. wt., 142 lbs.

5F818. NET Each **396.00**
2-49 .... 374.00

Fig. H. Type EMT4115. A 15.0 KVA assembly operating from nominal 115 volt, single phase, 50-60 cycle line. Transistorized Input voltage range is 95-135 volts and the output is adjustable 110-120 volts. Handles any load from 0-130 amperes. Speed of correction is .125 sec/volt. Only the "on-off" switch for the control circuit is provided, external switching arrangements must be supplied for the power circuit. Gray epoxy finished cabinet with 4" voltmeter on front panel, 26⅛"W. x 19¾"H. x 17¼"D. Shpg. wt., 300 lbs.

5F815. NET Each **630.00**
2-49 .... 595.00

Fig. H. Type EMT4207. For operation on nominal 230 volt, 50/60 cycle, single phase power lines. Input voltage range is 195-255 volts. Output is adjustable 220-240 volts. Speed correction of .083 sec/volt. Transistorized. Current rating 32.5 amperes and a rated output of 7.5 KVA. Employs a circuit breaker acting as both "on-off" switch and overload protector. Gray epoxy finished cabinet, 26⅛"Wx19¾"Hx17¼"D. Shpg. wt., 200 lbs.

5F819. NET Each **540.00**
2-49 .... 510.00

Fig. H. Type EMT4228B. For operation on nominal 230 volt, 50/60 cycle, single phase line. Input range is 205-250v and output (adjustable) 220-240v. Speed of correction is .10 sec/volt. Transistorized., The unit is rated 0-120.0 amps, 27.5 KVA output and has a switch for control circuit only. Heavy current requires external power circuit switching. Gray epoxy finished cabinet, 26⅛"Wx19¾"Hx17¼"D. Shpg. wt., 350 lbs.

5F832. NET Each **675.00**
2-49 .... 637.50

EXEL LOADING REACTOR TYPE LR2

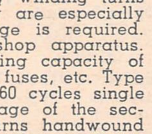
Simplifies inductive load testing in laboratory, test, inspection, research and development use. Provides a conveniently adjustable inductive reactive load when used with a variable transformer. It is useful where it is more practicable to simulate conditions than to employ the equipment which will be used. This is especially true when the equipment is large or of difficult access. It is used primarily for testing apparatus at various lagging power factors, i.e., to simulate an inductive load. It consists of a gapped, strip wound silicon steel toroid coil, wire-wound and imbedded in epoxy compound. Has a phenolic case with two binding posts. At 60 cycles it has a linear current curve 0-2 nom. amps continuous and up to 3 amps intermittent. 120v., 60 cycles. Inductive reactance 60 ohms. DC resis. 4 ohms. Inductance 0.16 h. Size: 5¾"H x 6"W x 2⅝"D. Wt., 7 lbs.

5F634. 1-11 .... **35.00**
12-49 .... 29.75

PARALLELING CHOKE

Stk.No.	Type	1-5	6-24	25-99
5F635	T-5000	13.00	11.70	11.05

FLEXIFORMER PACKAGED TRANSFORMER PRIMARY—MODEL TP 1000



This transformer is a self contained toroidal primary coil incased in durable high impact plastic. Two gold-plated Superior 5-Way binding posts on ¾" centers are integrally mounted for connections. The primary consists of a strip-wound silicon steel cone having a coil of 160 turns of #13 B&S gauge copper wire. When used as a source of AC voltage, the input rating is 120V., 50/60 cycs. single phase and output rating is 1000 VA. Max. input V. is 175 V at 60 cycs. or 145 V. at 50 cycs. The center opening permits hand threading the proper number of secondary winding turns to obtain the desired voltage. Each turn of the secondary winding supplies 0.75 v. at 120 V. input. When used as a current transformer, the Flexiformer winding becomes the secondary winding and a current carrying conductor passing through the center opening serves as the primary. Max. ratings (continuous use): primary c. 800 amps, sec. c. 5 amps with 160/1 prim. to sec. ratio with an accuracy of 1% at 60 cycles.

5F645. Type TP 1000. 1-11 .... **75.00**
12-99 .... 63.75

STANCOR TRANSFORMERS

INDUSTRIAL BUYERS—
WRITE FOR QUANTITY PRICES

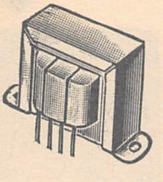


Fig. A

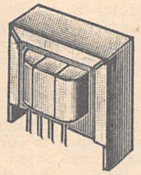


Fig. A-1

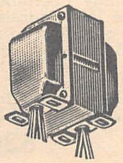


Fig. C

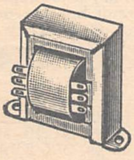


Fig. J

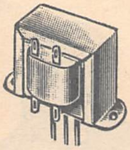


Fig. Q

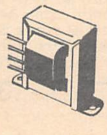


Fig. S

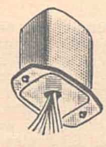


Fig. TD

TRANSISTOR INPUT TYPES

Stock No.	Mfr's. Type	Imp. in Ohms Pri.	Imp. in Ohms Sec.	Max. Pri. Ma. DC	Power Watts	Mtg. Ctrs.	Fig.	1-9	10-24	25-49	50-99	100-249
1F427	TA-1	600CT	10	20	.05	1 5/16	A	1.85	1.74	1.55	1.39	1.30
1F670	TA-18	30CT	50000	14.7	.15	2 5/32	A-1	3.58	3.35	3.01	2.68	2.51
1F671	TA-47	1000CT	200000CT	123	.30	1⅜	A	3.58	3.35	3.01	2.68	2.51

TRANSISTOR INTERSTAGE TYPES

1F428	TA-2	100CT	10CT	100	.25	1 13/16	A	1.85	1.74	1.55	1.39	1.30
1F429	TA-3	100	1000CT	100	.25	2	A	1.85	1.74	1.55	1.39	1.30
1F430	TA-4	500CT	5000CT	12	.03	2	A	2.43	2.28	2.05	1.83	1.71
1F672	TA-19	100CT	10CT	19	.15	2 5/32	A-1	3.58	3.35	3.01	2.68	2.51
1F673	TA-22	500CT	50	59.7	.15	2 5/32	A-1					
1F674	TA-24	500CT	50000	76.8	.15	2 5/32	A-1					
1F675	TA-27	1200	20000CT	142	.15	2 5/32	A-1					
1F676	TA-28	1500	500CT	104	.15	2 5/32	A-1					
1F677	TA-30	5000CT	7500CT	650	.15	2 5/32	A-1					
1F678	TA-31	5000CT	10000CT	635	.15	2 5/32	A-1					
1F679	TA-32	5000CT	80000CT	573	.15	2 5/32	A-1					
1F680	TA-34	10000	200CT	1200	.15	2 5/32	A-1					
1F681	TA-35	10000	2000CT	1200	.15	2 5/32	A-1					
1F682	TA-36	10000	3000CT	1200	.15	2 5/32	A-1					
1F683	TA-38	500CT	150CT	62	.15	2 5/32	A-1					
1F684	TA-46	100000	1500CT	3250	.30	1⅜	A					

TRANSISTOR DRIVER TYPES

1F431	TA-5	1000	200CT	10	.05	1 1/16	A	3.87	4.32	3.86	3.45	3.24
1F432	TA-6	2000	200CT	5	.05	1 1/16	A	5.22	4.89	4.37	3.91	3.66
1F433	TA-7	100	100CT	100	.5	2⅜	A	1.85	1.74	1.55	1.39	1.30
1F434	TA-13	200CT	400CT	10	.6	2⅜x1½	TD	3.94	3.68	3.30	2.95	2.76
1F443	TA-16	20	36CT	400	1.0	1¾	A	1.70	1.56	1.40	1.30	1.24

TRANSISTOR OUTPUT STAGES

1F435	TA-8	9800	15	2	.05	2	A	4.16	3.90	3.49	3.12	2.93
1F436	TA-9	1000	4/8/16	10	.2	1⅜	A	4.77	4.49	4.00	3.57	3.55
1F437	TA-10	2000CT	4/8/16		.2	1⅜	A	5.22	4.89	4.37	3.91	3.66
1F438	TA-11	48CT	8/16	275	5	2⅞	A	3.58	3.35	3.01	2.68	2.51
1F440	TA-12	20CT	8	500	10	2	A	1.85	1.74	1.55	1.39	1.30
1F439	TA-14	24CT	16/4CT†	200	10	3⅞x2¾	TD	9.87	9.24	8.27	7.39	6.94
1F685	TA-20	350CT	4/12	38	.15	2 5/32	A-1	3.58	3.35	3.01	2.68	2.51
1F686	TA-21	500CT	4/8/16	75.3	.15	2 5/32	A-1					
1F687	TA-23	600CT	4/8/16	73.2	.15	2 5/32	A-1					
1F688	TA-25	825CT	4/8/16	74	.15	2 5/32	A-1					
1F689	TA-26	1250	4/12	132.5	.15	2 5/32	A-1					
1F690	TA-29	2500	4/16	370	.15	2 5/32	A-1					
1F691	TA-33	10000CT	4/8/16	1174	.15	2 5/32	A-1					
1F692	TA-37	400CT	11	71.5	.15	2 5/32	A-1					
1F693	TA-39	100CT	4/8/16	10.9	.30	1⅜	A					
1F694	TA-40	160	4/8/16	18.7	.30	1⅜	A					
1F695	TA-41	400CT	4/8/16	34	.30	1⅜	A					
1F696	TA-42	500CT	4/8/16	47	.30	1⅜	A					
1F697	TA-43	700CT	4/8/16	77	.30	1⅜	A					
1F698	TA-44	2500	4/8/16	172	.30	1⅜	A					
1F699	TA-45	3000	4/8/16	192	.30	1⅜	A					

†2 secondaries: 16 ohm series, 4 ohms parallel.

12 VOLT CLASS B TRANSISTOR MODULATOR TYPE @ 120 Ma. D.C. SEC.

1F446	TA-17	8CT	7500/ 5000	......	35	1 15/16x2	C	6.36	5.84	5.25	4.86	4.63

BRIDGE TYPE TRANSISTOR POWER TRANSFORMER—PRIMARY 110-120 VOLT 60CY AC

Stock No.	Mfrs. Type	Plate 1 V AC	Plate 1 DC Ma	Plate 2 V AC	Plate 2 DC Ma	Base Area	Fig.	1-9	10-24	25-49	50-99	100-249
1F441	TP-1	13 or 18	900	13 or 18	900	3x2½	C	4.77	4.47	4.00	3.67	3.35

AUTO RADIO TRANSISTOR FILTER CHOKE

Stock No.	Mfg. Type	Inductance @ DCMA	DC Res. in Ohms	RMS V. Insulation	Fig.	Mtg. Ctrs.	Wt. in Lbs.	1-9	10-24	25-49	50-99	100-249
1F721	TC-2	11 mhy @ 1000 ma	.75	1000	*A2	1¼x7/16	0.6	1.21	1.11	1.00	.93	.88

*Similar to Fig. A-1, but with 4 vert. mtg. tabs.

UNIVERSAL OUTPUT TRANSFORMERS

Match any voice coil to rated primary ohms. Type A-3849 is designed to use with battery radios; Type A-3830 is for tubes with high output.

Stk.No.	Type	Pri. Ohms	Watts	Fig.	Ctrs.	Lbs.	1-9	10-24	25-49	50-99	100-249
1F250	A-3856	4000 to 14,000	4	Q	2″	½	2.84	2.61	2.35	2.18	2.07
1F252	A-3850	4000 to 14,000	8	J	2″	¾	3.25	2.99	2.69	2.49	2.37
1F253	A-3852	4000 to 14,000	18	J	2⅜″	1⅓	3.99	3.66	3.29	3.05	2.90
1F254	A-3849	1500 to 10,000	10	Q	2⅜″	¾	3.30	3.03	2.73	2.53	2.40
1F255	A-3830	3000 to 10,000	20	J	2 13/16″	1¾	4.41	4.05	3.65	3.38	3.21
1F256	A-3822	7000 to 10,000	4	Q	2″	½	1.91	1.76	1.58	1.46	1.39

PUSH-PULL PLATES TO VOICE COIL

*Has 10% inverse feedback winding.

Stk.No.	Type	Fig.	Application	Watts	1-9	10-24	25-49	50-99	100-249
1F206	A-8094*	A	4,000 ohms to 8/16/32 ohms	7.5	3.92	3.67	3.29	2.93	2.75
1F776	A-3872	TD	5,000 ohms to 15/8/4 ohms	18	4.49	4.20	3.76	3.36	3.15
1F777	A-3831	A	10,000 ohms to 8/4/2 ohms	5	2.60	2.43	2.19	1.95	1.83
1F778	A-3335	S	10,000 ohms to 6-8/3.2-4 ohms	10	3.03	2.84	2.55	2.27	2.13
1F779	A-3946	A	14,000 ohms to 4 ohms	5	2.60	2.43	2.19	1.95	1.83
1F780	A-3857	A	25,000 ohms to 4 ohms	5	2.30	2.16	1.94	1.73	1.63
1F222	A-3802	C	3,800/3,300 ohms CT to 500/250/8/4 ohms	75	11.54	10.80	9.67	8.64	8.10
1F223	A-3801	C	6,600 ohms CT to 500/250/15/8/4 ohms	35	8.41	7.87	7.04	6.29	5.90
1F224	A-3311	C	10,000 ohms CT to 500/15/8/4 ohms	25	6.64	6.22	5.57	4.97	4.68
1F225	A-3839	TD	10,000 ohms CT to 2,000 & 15/8/4 ohms	10	4.65	4.35	3.90	3.48	3.26
1F226	A-3885	C	9,000 ohms CT to 500/250/15/8/4 ohms	35	8.34	7.80	6.99	6.24	5.85
1F227	A-8093	A	10,000 ohms CT to 3-4 Ohms	10	2.19	1.95	1.75	1.5	1.46

TRANSFORMERS STANCOR

FIXED PRIMARY IMPEDANCE OUTPUT TRANSFORMERS

Type A-3336 has tapped primary for hum-reducing circuit.

Stk. No.	Type	Fig.	Pri.	Sec.	Watts	Mtg. Ctrs.	Lbs.	1-9	10-24	25-49	50-99	100-299
1F268	A-3879	A	10.000	4	5	2	0.4	1.45	1.33	1.19	1.07	1.00
1F276	A-3332	A	2000	3.2	3	1¾	½	1.36	1.25	1.12	1.00	.94
1F265	A-3876	A	2000	4	5	2	½	1.45	1.33	1.19	1.07	1.00
1F277	A-3336	A	2500	3.5	5	2	½	1.95	1.79	1.61	1.49	1.42
1F260	A-3328	A	4000	3.5	3	1¾	½	1.35	1.23	1.10	.99	.93
1F266	A-3877	A	5000	4	5	2	½	1.45	1.33	1.19	1.07	1.00
1F339	A-3310	C	5000	500/15/8/4	20	2x1 11/16	2½	5.60	5.13	4.60	4.11	3.85
1F340	A-8092	A	5000	3.4	8	2⅜	½	2.05	1.88	1.69	1.51	1.41
1F275	A-3801	C	6600CT	500/250/15/8/4	35	2½x2 3/16	4¾	8.58	7.87	7.04	6.29	5.90
1F267	A-3878	A	7000	4	5	2	½	1.49	1.37	1.22	1.09	1.03
1F278	A-8114	A	7600	3.2	5	2	0.4	1.73	1.58	1.42	1.27	1.19
1F261	A-3329	A	8000	3.5	3	1¾	½	1.34	1.23	1.10	.99	.93
1F409	A-3311	C	10000CT	500/15/8/4	25	2¼x2	3.5	6.77	6.22	5.57	4.97	4.66
1F341	A-3881	A	15000	4	5	2	0.4	1.60	1.47	1.31	1.17	1.10

TUBE TO LINE

*Secondaries, 500 ohms; others 500/333/200/125/50 ohms. A-3841. 10W., 1.5 lbs., A-3250, 5W., 1 lb.

Stk.No.	Type	Use	Primary	Size	1-9	10-24	25-49	50-99	100-249
1F283	*A-3841	Sgl Plate	7000/6000/5000/4000/2500	2 11/16x3 5/16x2¼"	4.90	4.50	4.05	3.75	3.57
1F296	A-3250	Sgl/PP Pl.	20000/10000/5000/20000 CT	2x3¼x1¾"	4.11	3.77	3.39	3.14	2.99

LINE TO VOICE COIL

Stk.No.	Type	Fig.	Impedance	Watts	Size	Lbs.	1-9	10-24	25-49	50-99	100-249
1F366	A-8101	Q	Pri., 500 Sec., 6-8/3.2	5	2⅜x1⅜x1⅜"	¼	1.73	1.59	1.43	1.32	1.26
1F367	A-3883	J	Pri., 500 Sec., 15/8/6/4	25	2⅞x1¾x2 5/16"	1½	3.38	3.10	2.79	2.59	2.46
1F368	A-3882	D	Pri., 500/333/250, Sec., 15/8/4	25	2⅝x3½x3 3/16"	2¼	8.34	7.65	6.89	6.37	6.07
1F369	A-3818	J	Pri., 1,500/1,000/500, Sec., 15/8/4	25	3⅝x2¼x3⅛"	2½	4.82	4.43	3.98	3.69	3.51
1F370	A-8104	J	Pri., 3,000/2,000/1,500/1,000/500, Sec., 16/8/4	10	2 15/16x1¾x2 5/16"	1½	3.99	3.66	3.29	3.05	2.90
1F280	A-7947	Q	Pri., 2000, 1500, 1000, 500, Sec., 6-8/3.2	8	1⅝x2 13/16x1 9/16"	¾	2.87	2.64	2.38	2.20	2.09
1F281	A-7949	J	Pri., 2000, 1500, 1000, 500, Sec., 6-8/3.2	12	2 5/16x2⅞x1 13/16"	1½	3.37	3.09	2.78	2.57	2.45

MICROPHONE OR LINE TO LINE TRANSFORMERS

Sec. 500/333/200/125/50. Size: 3¼x1¾x2" high. Mtg. Ctrs. 2 13/16"

Stk.No.	Type	Primary	Watts	Mtg.	Wt.	1-9	10-24	25-49	50-99	100-249
1F763	A-4350	500/333/200/125/50	10	Q	1.0	4.24	3.90	3.51	3.25	3.09

CARBON MIKE or LINE to SINGLE GRID

*Has Dual primary—when properly connected, the 200 and 500 ohm sections are center tapped.

Stk.No.	Type	Use	Pri.	Sec.	Size	Wt.	1-9	10-24	25-49	50-99	100-249
1F285	A-4705	SB Mic	200/70	80,000	1⅜x2⅜x1⅜"	½	2.91	2.67	2.40	2.22	2.12
1F288	A-4351*	Mic or Line	500/333/200/125/50	89,000	2 11/16x2¾x2 3/16"	1¼	4.54	4.17	3.75	3.48	3.31

INTERSTAGE (7000-2000 ohm plate imped. to 1G.)

St.No.	Type	Ratio	Size	Fig.	Ctrs.	Lbs.	1-9	10-24	25-49	50-99	100-249
1F302	A-53	1:3	1⅜x2⅜x1½	A	2"	½	1.98	1.82	1.63	1.45	1.36

PUSH-PULL INPUTS (One 7000-15,000 ohm plate imped., max. pri. DC 10MA to 2G.)

Stk.No.	Type	Fig.	Ratio	Size	Ctrs.	Lbs.	1-9	10-24	25-49	50-99	100-249
1F294	A-52C	A	1:2	1⅜x2⅜x1⅜	2"	¼	2.20	2.03	1.82	1.69	1.61
1F291	A-63C	A	1:3	1⅝x2⅞x1½	2⅜"	¾	2.65	2.43	2.19	2.03	1.93

PUSH-PULL INTERSTAGE (Two 7000-15,000 ohm plates, max. pri. DC 10MA to 2G.)

St.No.	Type	Fig.	Ratio	Size	Ctrs.	Lbs.	1 to 9	10 to 24	25 to 49	50 to 99	100 to 249
1F300	A-4711	A	1:1	1⅝x2⅞x1½	2⅜"	¾	3.09	2.84	2.55	2.36	2.25

DRIVER TRANSFORMERS

St.No.	Type	Pri. Imp.	Pri. /½ Sec.	Pri. D.C.	Mtg.	Fig.	Lbs.	1-9	10-24	25-49	50-99	100-249
1F221	A4702	1500 to 5000Ω	5:1	80 ma	2x1 11/16	C	2.5	4.80	4.41	3.97	3.68	3.50
1F406	A4713	10,000Ω	2:1	30 ma	2⅜	A	.7	2.08	1.91	1.71	1.59	1.51
1F407	A4723	10,000Ω	3:1	30 ma	2⅜	A	.7	2.11	1.94	1.74	1.61	1.54
1F220	A4752	10,000Ω	2/1.5/1:1	40 ma	2 13/16	A	1.2	2.87	2.64	2.38	2.20	2.09

25 VOLT LINE TO VOICE COIL TRANSFORMERS

Stk. No.	Type	Pri. Imp.	Sec. Imp.	Watts	Mtg.	1-9	10-24	25-49	50-99	100-249
1F389	A-8095	125/250/500/1000/2000	4/8Ω	5/2.5/1.25/.62/.31	2"	2.64	2.41	2.17	2.01	1.92
1F390	A-8096	78/156/312.5/625/1250	4/8/16Ω	8/4/2/1/0.5	2"	3.53	3.24	2.92	2.70	2.56

INTERCOM TRANSFORMERS

St.No.	Type	Use	Pri. Imp.	Sec. Imp.	Fig.	Ht.	Wt. (lb.)	1-9	10-24	25-49	50-99	100-249
1F311	A-4744	Input	4Ω	25KΩ	VE	1⅜"	0.5	1.98	1.82	1.63	1.51	1.44
1F399	A-4748	Input	45 or 50Ω	50KΩ	A	1 3/16"	0.4	2.94	2.70	2.43	2.25	2.14

TYPE C-1003 FILTER CHOKE

Milliamperes—50. Henrys—16. Ohms—580. Fig. A. Size: 2x3¼x1¾"—1 lb.

1F161.	1-9	2.13
	10-24	1.95
	25-49	1.75
	50-99	1.56
	100-249	1.46

70.7-VOLT LINE TO VOICE COIL

Type A-8102. Power steps in watts: 8/4/2/1/0.5. Pri. 625/1250/2500/5000/10000. Sec. 4/8/16 ohms. Base, 1⅝ x2 7/16", height, 2". Mtg. ctrs., 2". Fig. J. Wt., 12 oz.

1F373.	1 to 9	3.43
	10 to 24	3.15
	24 to 49	2.84
	50 to 99	2.63
	100 to 249	2.50

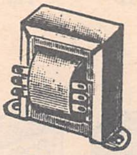
Type A-8103. Power steps in watts: 16/8/4/2/1/0.5. Pri. 312.5/625/1250/2500/-5000/10000. Sec. 4/8/16. Base, 2¼x3¼"; height, 2¾". Mtg. ctrs., 2 13/16". Fig J. Shpg. wt., 1½ lbs.

1F374.	1 to 9	4.85
	10 to 24	4.45
	25 to 49	4.01
	50 to 99	3.71
	100 to 249	3.53

Type A-8105. Power steps in watts: 5/2.5/1.25/.62/.31. Pri. 1000/2000/4000/8000-/16000 ohms. Sec. 4/8 ohms. Base, 2⅜x1⅜"; height, 1⅜". Mtg ctrs., 2". Fig. Q. 0.4 lb.

1F126.	1 to 9	2.78
	10 to 24	2.55
	25 to 49	2.30
	50 to 99	2.13
	100 to 249	2.02

Type D



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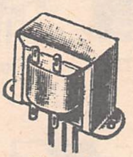

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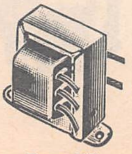


Type VE

STANCOR TRANSFORMERS, CHOKES AND FILTERS

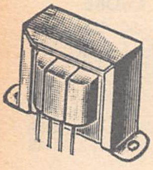


Fig. A

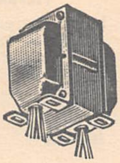


Fig. C

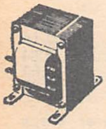


Fig. BV

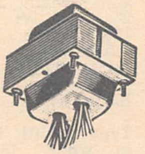


Fig. M

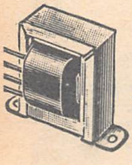


Fig. S

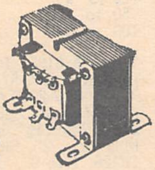


Fig. BH

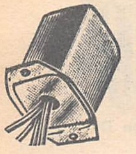


Fig. TD

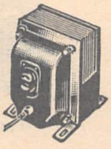


Fig. KA

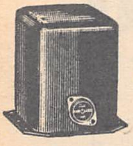


Fig. TE

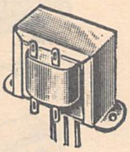


Fig. Q

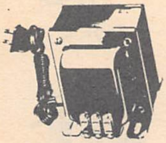


Fig. KC

PLATE MODULATION TRANSFORMERS

Stk. No.	Type	Sec.	Pri.	Ma-Pri.	Ma-Sec.	Watts	Fig.	Lbs.	1-9	10-24	25-49	50-99	100-249
1F210	A-3845	8000/6500/5000/3000	10,000CT	100	100	25 W.	C	3	5.72	5.25	4.73	4.38	4.17
1F403	A-3812	4000	10,000CT	32	50	5	A	0.7	2.38	2.19	1.97	1.83	1.74

BAND PASS FILTER

Application 200 to 3,000 C.P.S.

Stock No.	Mfg. Type	Input in Ohms	Output in Ohms	Fig.	Mtg. Ctrs.	Wt. lbs.	1-9	10-24	25-49	50-99	100-249
1F444	C-2340	10,000	500 or 100,000	TD	2⅜x1½″	0.6	32.91	30.77	27.55	24.61	23.08

LOW PASS FILTER

Application: 3000 C.P.S. Cutoff

Stock No.	Mfrs. Type	Input in Ohms	Output in Ohms	Fig.	Mtg. Ctrs.	Wt. lbs.	1-9	10-24	25-49	50-99	100-249
1F445	C-2341	100,000	100,000	TD	2⅛″	0.5	12.46	11.65	10.43	9.32	8.74

ISOLATION TRANSFORMERS

Heavy duty. Maintain rated wattage. Good pri-sec. isolation. * Switched 105-115-125V., 50/60-cyc. pri. taps; std. AC recptcl. 115-V sec. P-6415: test TV and radio recvrs.; 105, 115, 125V output recptcl., 117V, 60 cyc. pri.

Stk. No.	Type	Watts	Fig.	Size	Lbs.	1-9	10-24	25-49	50-99	100-249
1F315	*P-6160	100	KA	4¾x4x3⅞″	7	13.94	13.03	11.67	10.43	9.78
1F316	P-6415	350	KC	5⅜x4½x5¾″	17	22.61	21.15	18.94	16.92	15.86
1F317	P-6410	50	K	3⁹⁄₁₆x2¹⁵⁄₁₆x3⅛″	4	7.62	7.13	6.39	5.71	5.35
1F319	*P-6298	500	KA	7⅝x6⅛x7⅝″	28.0	41.56	38.78	34.73	31.03	29.09
1F404	P-6371	175	TE	5⁵⁄₁₆x4⁹⁄₁₆x5¼″	9	18.60	17.40	15.58	13.92	13.05

STEP-DOWN ISOLATION

Pri. 250/230/210. V. 50-60 cy. Sec. 115 V. Built-in electrostatic shield. RME test 1500 V.

Stock No.	Type	Watts	Fig.	Size (in.)	Lbs.	1-9	10-24	25-49	50-99	100-249
1F326	P-6383	100	KA	4¾x4x3¾″	7.5	14.07	13.17	11.79	10.53	9.88

AC-DC CHOKES

Stk. No.	Type	Hys.	Ma.	Ohms	Size	Fig.	Lbs.	1-9	10-24	25-49	50-99	100-249
1F196	C-1333	8.0	50	450	1⅝x2⅞x1½″	A	¾	1.62	1.48	1.34	1.24	1.18
1F195	C-1215	9.0	50	500	1⅝x2⅞x1½″	A	¾	1.57	1.44	1.30	1.20	1.14
1F191	C-1080	3.5	50	200	1⅝x2⅞x1½″	A	¾	1.62	1.48	1.34	1.24	1.18
1F192	C-1325	5	50	250	1⅝x2⅞x1½″	A	¾	1.62	1.48	1.34	1.24	1.18
1F194	C-1279	8.5	50	400	1⅝x2⅞x1½″	A	¾	1.62	1.48	1.34	1.24	1.18

230 TO 115 VOLT STEP-DOWN AUTOFORMERS

Fig. KA. Reduce 230 VAC to 115V 50/60 cyc. Std. Fem. receptacle on shell, UL-approved 6-ft. cord and plug included. RMS test insulation 1500V.

Stk. No.	Type	Watts	Size	Lbs.	1-9	10-24	25-49	50-99	100-249
1F320	P-6287	40	3½x2¹¹⁄₁₆x2⁷⁄₁₆″	2¼	6.23	5.83	5.22	4.67	4.38
1F321	P-5062	80	3⅝x3x3¼″	4	7.62	7.13	6.39	5.71	5.35
1F322	P-5063	100	4x3¼x3¼″	4½	8.07	7.57	6.78	6.05	5.68
1F323	P-5064	150	4⁵⁄₁₆x3⅝x3⅝″	5¼	9.54	8.92	7.99	7.13	6.69
1F324	P-5065	300	4¾x4x4⅛″	9	13.24	12.38	11.09	9.91	9.29
1F325	P-6141	500	4¾x4x5⅛″	14	17.42	16.30	14.60	13.04	12.24

POWER TRANSFORMERS WITH SPECIAL OR COMBINATION FILAMENT WINDINGS

Stock No.	Style	Plate Supply		Rect. Fil.		Other Volts	Wdgs. Amps.	Mtg. Ctrs.	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
		A.C. Volts	D.C.	Volts	Amps									
1F766	P-6348	240-0-240	60			6.3CT	2.75	1¹⁵⁄₁₆	2.3	5.36	5.02	4.49	4.01	3.76
1F767	P-8177	300-0-300	120	5.0	3.0	6.3CT	5.0	2¾x2¾	5¾	9.21	8.62	7.72	6.89	6.46
1F067	P-8174	250-0-250	20			6.3	0.6	2¹³⁄₁₆	1½	4.65	4.35	3.90	3.48	3.26
1F068	P-8175	300-0-300	70	5.0	3.0	6.3CT	3.0	2¼x2¼	4	7.56	7.07	6.33	5.65	5.30
1F069	P-8176	350-0-350	110	5.0	2.0	6.3CT	2.0	2¾x3	5½	10.15	9.50	8.51	7.60	7.13

SELENIUM RECTIFIER TRANSFORMERS (FIG. BV)

Stock No.	Part No.	Rect. Circ.	Out. Resis. Induc. Load Max. DC		Out Capacitative Load Max. DC		Shpg. Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
			V	Amps	V	Amps						
1F378	RT-201	CT	11.2	2.0	13.8	2.0	2.5	4.88	4.57	4.09	3.63	3.43
		Bridge	23.0	1.25	30.0	1.25	2.5					
1F379	RT-202	CT	11.1	4.0	14.7	4.0	3.8	6.57	6.20	5.55	4.96	4.65
		Bridge	24.3	2.0	33.0	2.0	3.8					
1F380	RT-204	CT	12.0	8.0	14.5	8.0	6.1	8.57	8.02	7.18	6.41	6.01
		Bridge	24.0	4.0	32.4	4.0	6.1					
1F381	RT-206	CT	11.5	12.0	14.4	12.0	9.1	11.63	10.88	9.75	8.71	8.16
		Bridge	24.0	6.0	32.0	6.0	9.1					
1F382	RT-208	CT	11.4	15.0	14.8	15.0	12.6	14.66	13.72	12.28	10.97	10.29
		Bridge	23.7	8.0	32.5	8.0	12.6					
1F383	RT-2012	CT	11.4	22.5	14.3	22.5	20.5	21.63	20.23	18.12	16.19	15.18
		Bridge	23.5	12.0	33.0	12.0	20.5					
1F384	RT-408	Bridge	44.0	8.0	63.0	8.0	26.5	31.99	29.92	26.79	23.93	22.44
1F385	RT-4012	Bridge	43.5	12.0	60.0	12.0	33.5	42.12	39.40	35.28	31.52	29.55

TRANSFORMERS STANCOR

"8400" SERIES POWER TRANSFORMERS

All units have low temp. rise, well within limits set by RETMA. PM types are Fig M. PC types are Fig. C. Units directly below provide 260 VDC to condenser input filter.

Stock No.	Mfr's. Type	Plate V.	CT Ma.	Rect.		Fil.		Mtg. Ctrs.	Wt. Lbs.	1 to 9	10 to 24	25 to 49	50 to 99	100 to 249
				V.	A.	V. CT	A.							
1F000	PC-8401	470	40	5.0	2.0	6.3CT	2.0	2 x1 9/16	2¼	5.42	4.97	4.47	4.14	3.94
1F001	PM-8401	470	40	5.0	2.0	6.3CT	2.0	2 x2½	2¼	5.66	5.22	4.70	4.35	4.14
1F002	PC-8402	480	55	5.0	2.0	6.3CT	2.0	2 x1 11/16	2½	5.38	4.94	4.44	4.11	3.92
1F003	PM-8402	480	55	5.0	2.0	6.3CT	2.0	2 x2½	2½	5.53	5.07	4.56	4.23	4.02
1F004	PC-8403	500	70	5.0	2.0	6.3CT	2.5	2 x2 1/16	3¼	6.23	5.73	5.16	4.78	4.55
1F005	PM-8403	500	70	5.0	2.0	6.3CT	2.5	2 x2½	3¼	6.23	5.73	5.16	4.78	4.55
1F006	PC-8404	520	90	5.0	2.0	6.3CT	3.0	2¼x2¼	4	6.91	6.35	5.71	5.29	5.03
1F007	PM-8404	520	90	5.0	2.0	6.3CT	3.0	2¼x2 13/16	4	6.91	6.35	5.71	5.29	5.03
1F008	PC-8405	540	120	5.0	3.0	6.3CT	3.5	2½x2 3/16	5	9.01	8.28	7.45	6.90	6.57
1F009	PM-8405	540	120	5.0	3.0	6.3CT	3.5	2½x3⅛	5	9.01	8.28	7.45	6.90	6.57

Designed for use with choke input filter. VR tube regulated supply, speaker field in filter, or higher voltage wtih condenser input filter. PM types are Fig. M. PC types are Fig. C.

1F010	PC-8406	650	40	5.0	2.0	6.3CT	2.0	2 x1 11/16	2½	5.64	5.19	4.67	4.33	4.12
1F011	PM-8406	650	40	5.0	2.0	6.3CT	2.0	2 x2½	2½	5.64	5.19	4.67	4.33	4.12
1F012	PC-8407	650	55	5.0	2.0	6.3CT	2.0	2 x2 1/16	3¼	5.88	5.40	4.86	4.50	4.28
1F013	PM-8407	650	55	5.0	2.0	6.3CT	2.0	2 x2½	3¼	5.88	5.40	4.86	4.50	4.28
1F014	PC-8408	680	70	5.0	2.0	6.3CT	2.5	2¼x2⅛	3¾	7.35	6.75	6.08	5.63	5.36
1F015	PM-8408	680	70	5.0	2.0	6.3CT	2.5	2¼x2 13/16	3¾	7.35	6.75	6.08	5.63	5.36
1F016	PC-8409	700	90	5.0	2.0	6.3CT	3.0	2¼x2⅜	4½	7.76	7.13	6.41	5.94	5.65
1F017	PM-8409	700	90	5.0	2.0	6.3CT	3.0	2¼x2 13/16	4½	7.76	7.13	6.41	5.94	5.65
1F018	PC-8410	720	120	5.0	3.0	6.3CT	3.5	2½x2 7/16	5½	8.81	8.09	7.27	6.74	6.41
1F019	PM-8410	720	120	5.0	3.0	6.3CT	3.5	2½x3⅛	5½	9.17	8.42	7.57	7.01	6.68
1F020	PC-8411	750	150	5.0	3.0	6.3CT	4.5	2¾x2 13/16	5¾	11.79	10.83	9.75	9.03	8.59
1F021	PM-8411	750	150	5.0	3.0	6.3CT	4.5	2¾x3 7/16	5¾	12.30	11.28	10.15	9.40	8.95
1F022	PC-8412	800	200	5.0	3.0	6.3CT	5.0	3 x2 13/16	8¼	12.30	11.28	10.15	9.40	8.95
1F023	PM-8412	800	200	5.0	3.0	6.3CT	5.0	3 x3¾	8¼	12.33	11.31	10.18	9.42	8.97
1F024	PC-8413	800	250	5.0	4.0	6.3CT	5.0	3 x3 5/16	10	14.06	12.90	11.61	10.75	10.23
1F025	PC-8414	1200	200	5.0	3.0	6.3CT 6.3	3.0 3.0	3 x3 1/16	8¼	14.46	13.28	11.95	11.06	10.53
1F764	PC-8422	325-0325	150	5.0	3.0	6.3CT	5.0	2½x3⅛	5.8	9.40	8.63	7.76	7.19	6.84

For use with 6AX5, 6X4, or selenium rectifiers. *Half wave. PM types are Fig. M. PC types are Fig. C. PS types are Fig. S. PA types are Fig. A.

1F026	PS-8415	125*	15			6.3	0.6	2	¾	2.32	2.13	1.92	1.78	1.69
1F027	PS-8416	250	25			6.3	1.0	2⅜	1	2.79	2.57	2.31	2.14	2.03
1F035	PA-8421	125*	50			6.3	2.0	3⅛	1½	3.76	3.45	3.11	2.88	2.74
1F028	PC-8417	440	50	6.3	0.6	25.2	0.5	2 x1 9/16	2¼	6.28	5.76	5.18	4.80	4.57
1F029	PC-8418	460	50			6.3	2.5	2 x1 9/16	2¼	4.70	4.32	3.89	3.60	3.43
1F030	PM-8418	460	50			6.3	2.5	2 x2½	2¼	4.70	4.32	3.89	3.60	3.43
1F031	PC-8419	480	70			6.3	3.0	2 x1 13/16	2½	5.41	4.97	4.47	4.14	3.94
1F032	PM-8419	480	70			6.3	3.0	2 x2½	2½	5.41	4.97	4.47	4.14	3.94
1F033	PC-8420	520	90			6.3	4.0	2 x2¼	3½	6.29	5.78	5.20	4.81	4.58
1F765	PM8420	260-0-260	90			6.3	4.0	2¼x2 13/16	3.5	6.56	6.02	5.41	5.01	4.77

POWER TRANSFORMERS WITH SPECIAL OR COMBINATION FILAMENT WINDINGS

Stock No.	Style	Plate Supply		Rect. Fil.		Other Volts	Wdgs. Amps.	Mtg. Ctrs.	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
		A.C. Volts	D.C.	Volts	Amps									
1F766	P-6348	240-0-240	60			6.3CT	2.75	1 15/16	2.3	5.47	5.03	4.52	4.19	3.99
1F767	P-8177	300-0-300	120	5.0	3.0	6.3CT	5.0	2¾x2¾	5¾	9.40	8.63	7.76	7.19	6.84

POWER TRANSFORMERS

Fig. M. 117 volts, 50-60 cycles primary. Electrostatic shielding.

Stock No.	Mfr's. Type	Plate V.	CT Ma.	Rect.		Fil.		Mtg. Ctrs.	Wt. Lbs.	1 to 9	10 to 24	25 to 49	50 to 99	100 to 249
				V.	A.	V. CT	A.							
1F054	P-6010	650	40	5CT	3	6.3	2	3 x2½	2½	6.39	5.87	5.28	4.89	4.65
1F055	P-6011	700	70	5CT	3	6.3	2.5	2⅞x3⅜	3½	6.95	6.38	5.74	5.31	5.06
1F056	P-6012	700	90	5CT	3	6.3	3.5	2½x3	4¼	8.01	7.35	6.62	6.13	5.83
1F057	P-6013	700	120	5CT	3	6.3	4.7	3⅛x3¾	5¼	8.65	7.94	7.14	6.61	6.30
1F058	P-6014	750	150	5CT	3	6.3	5	3⅛x3¾	6	9.24	8.48	7.63	7.06	6.72
1F076	P-6315	740	275	5CT	3	6.3	7.0	3 x3¾	9½	13.68	12.56	11.30	10.46	9.96
1F082	P-6143	880	130	5	3	6.3	3.5	2¾x2 13/16	7	11.06	10.16	9.14	8.46	8.06

PHOTOFLASH TRANSFORMER

Stock No.	Mfr's No.	Application	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
1F086	P-6425	Power xformer for AC powered Electronic flash circuits	1½	3.43	3.15	2.84	2.63	2.50
1F087	P-6426	Trigger Coil for 450V flash	¼	1.64	1.50	1.35	1.25	1.19

SWINGING CHOKES

Part No.	Type	Hys.	Approx. Range of Induc. at DCMA	Ohms	Size	Fig.	Lbs.	1-9	10-24	25-49	50-99	100-249
1F781	C-1402	10	12-2 at 25-250	60	3x3½x3⅝"	C	4⅓	6.82	6.27	5.64	5.22	4.97
1F063	C-1718	10	13.5-3.5 at 15-150	130	2⅝x2½x3 3/16"	C	2.3	4.34	3.99	3.59	3.33	3.17
1F064	C-1400	10	12-2 at 17.5-175	100	2⅝x2⅝x3 3/16"	C	2.4	4.64	4.26	3.83	3.55	3.38
1F065	C-1645	10	12-2 at 20-200	90	3¼x3⅜x4"	C	4½	6.46	5.92	5.33	4.94	4.70
1F066	C-2307	16	20-4 at 30-300	80	4x3⅞x4¾"	C	7.9	11.21	10.29	9.26	8.58	8.16

BIAS SUPPLY TRANSFORMERS

High Voltage Type. Size 3¼x3⅝x4". Shpg. wt., 4.9 lbs.

Stk. No.	Type	AC volts @ 200 DC ma.	Rectifier Fil.		1-9	10-24	25-49	50-99	100-249
			Volts	Amps					
1F062	P-6317	400/340/260/180/0 CT	5.0	3.0	11.23	10.32	9.29	8.60	8.19

OSCILLOSCOPE POWER

For use with Type 2X2 rectifier tubes in a convenient half-wave high voltage supply.* Has additional filament winding, 2.5 volts at 2 amps.

Type P-8150: Fig. TD; Size, 3 1/16x3x2½"; Wt. 1¾ lbs. AC Plate Voltage: 1550. Rect: 2.5V, 1.75A. DC Ma supply 1.5.

1F090. 1-9........................**8.82**
10-24......**8.10, 25-49**..........**7.29**
50-99......**6.75, 100-249**......**6.43**

Type P-8151*. Fig. C; Size, 4 5/16x3 9/16x3⅞"; Wt. 6½ lbs. AC Plate Voltage: 2400. Rect: 2.5V, 2A. DC Ma Supply 5.0.

1F091. 1-9........................**11.62**
10-24....**10.67, 25-49**..........**9.60**
50-99.... **8.89, 100-249**......**8.46**

SPLATTER SUPPRESSOR FILTER

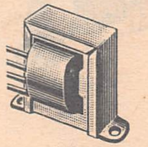
Type C2317. Inductance range 0.048 to 0.9 henries. 300 ma. D.C. Fig. BH. Mtg. ctrs. 2½x2. Ht. 2⅝". Base area 3x3". Wt. 2.3 lbs.

1F405. 1 to 9 ....**5.45**
10 to 24..........................**5.01**
25 to 49..........................**4.51**
50 to 99..........................**4.18**
100 to 249........................**3.97**

TUBE CHECKER TRANSFORMER

Type P-1834-3. Fig. Q; Multi-tapped filament. Pri. 105-115-125V, 60 cyc. AC. Sec.: 1.1, 1.4, 1.5, 2, 2.5, 3, 3.3, 4, 5, 6.3, 7, 7.5, 12, 20, 25, 30, 35, 50, 70, 85, 110-117V. Ht., 2⅝". Wt., 2¼ lbs.

1F310. 1 to 9......................**9.92**
10 to 24..........................**9.11**
25 to 49..........................**8.19**
50 to 99..........................**7.59**
100 to 249 **7.22**



P-6425

P-6317

Newark Can Supply the Complete Line of Stancor Transformers at Factory Competitive Prices.

STANCOR TRANSFORMERS AND CHOKES

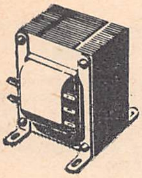


Fig. BV

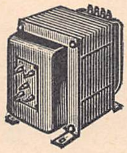


Fig. BH

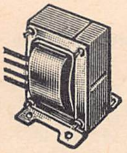


Fig. NV

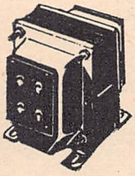


Fig. D

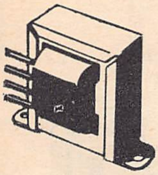


Fig. S

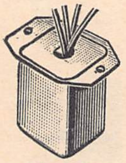


Fig. TD

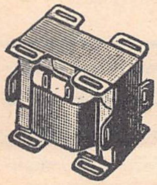


Fig. L

FILAMENT TRANSFORMERS

All have 117V, or 117/107V primaries except + which has 6.3 volt primary; * electrostatic shield.

Stk. No.	Type	Sec. V	Amps	Size	Fig.	Lbs.	1-9	10-24	25-49	50-99	100-249
1F093	P-4026	2.5	1.5	2⅞x1½x1⅝"	A	¾	2.66	2.48	2.22	1.99	1.86
1F100	P-6133*	2.5 CT	5	2¹¹⁄₁₆x3³⁄₁₆x2¼"	S	1½	3.66	3.42	3.06	2.73	2.56
1F101	P-3024*	2.5 CT	10	3³⁄₁₆x2⅝x2⅝"	C	2½	4.81	4.50	4.03	3.60	3.38
1F102	P-3060	2.5 CT	10	3½x2⅞x2½"	BV	2½	6.47	6.05	5.42	4.84	4.54
1F333	P-6454	2.5 CT	10.0	3⅝x2½x3⅛"	S	2½	3.85	3.60	3.22	2.85	2.70
1F095	P-6467	5.0 CT	3.0	3⁵⁄₁₆x2x2"	A	1½	3.09	2.88	2.58	2.31	2.16
1F103	P-4088*	5.0 CT	3	3⅛x2½x2½"	BV	2	4.08	3.82	3.42	3.05	2.86
1F336	P-3026	5.0 CT	3.0	2⅝x2⅝x3³⁄₁₀"	C	2⁴⁄₁₀	4.81	4.50	4.03	3.60	3.38
1F096	P-3062*	5.0 CT	6.0	2½x2½x3⅛"	BV	2⅓	4.96	4.62	4.13	3.69	3.46
1F334	P-6455	5.0 CT	6.0	3⁵⁄₁₆x2¼x2⅝"	S	2	4.16	3.90	3.49	3.12	2.93
1F335	P-5000	5.0 CT	6.0	2½x3x3³⁄₁₆"	C	3¹⁄₁₀	5.58	5.22	4.67	4.17	3.91
1F104	P-6135	5.0 CT	10	3⅛x2½x2⅞"	BV	3	5.38	5.03	4.51	4.03	3.78
1F097	P-6468	5.0 CT	30.0	3⁹⁄₁₆x3⅞x4⁵⁄₁₆"	D	4⅓	12.30	11.50	10.30	9.20	8.63
1F376	P-6492	5.0 CT	30.0	4¾x3¾x3⅞"	C	7½	10.52	9.83	8.81	7.87	7.38
1F375	P-6465	6.3 CT	0.6	1⅜x2⅜x1⅜"	A	⁴⁄₁₀	1.91	1.78	1.60	1.43	1.34
1F539	P-8190	6.3	1.2	2x3¼x1¾"	A	1	2.66	2.48	2.22	1.99	1.86
1F540	P-8191+	6.3	1.2	2x3¼x1¾"	A	1	2.86	2.67	2.39	2.13	2.00
1F105	P-6134	6.3 CT	1.2	1⅝x2¾x1¾"	A	1	2.01	1.88	1.69	1.51	1.41
1F133	P-6462	6.3	3.0	3⅝x2⅝x3"	S	2	5.38	5.03	4.51	4.03	3.78
1F106	P-5014*	6.3 CT	3	3⅛x2½x2½"	BV	2	4.49	4.20	3.76	3.36	3.15
1F123	P-6466*	6.3 CT	3	2x3⁵⁄₁₆x2"	A	1¼	3.26	3.05	2.73	2.44	2.29
1F098	P-4019*	6.3 CT	4.0	2⅝x3³⁄₁₆x2⅝"	C	2¾	4.85	4.53	4.06	3.63	3.40
1F099	P-4089*	6.3 CT	6.0	3x3⅛x3⅝"	C	3½	6.36	5.95	5.33	4.76	4.46
1F107	P-3064*	6.3 CT	6	3⅛x2½x2⅞"	BV	2½	5.20	4.87	4.36	3.89	3.65
1F139	P-6456	6.3 CT	6.0	2¼x3⅝x2½"	A	2	3.67	3.43	3.07	2.75	2.58
1F108	P-6308*	6.3 CT	10	3½x2⅞x2⅞"	BV	3½	6.32	5.92	5.30	4.73	4.44
1F109	P-6309*	6.3 CT	20	4⅝x3¾x3"	BV	7	9.82	9.18	8.22	7.35	6.89
1F110	P-5015	7.5 CT	4	3⅛x2½x2⅞"	BV	3	4.56	4.27	3.82	3.41	3.20
1F140	P-4091*	7.5 CT	5.0	3⅝x3x3"	C	3⁴⁄₁₀	6.45	6.03	5.40	4.83	4.53
1F337	P-6138	7.5 CT	8.0	3⅛x2⅞x3⅞"	BV	4⁷⁄₁₀	7.11	6.55	5.87	5.24	4.91
1F112	P-5016*	10.0 CT	4	3½x2⅞x2⅝"	BV	3½	5.83	5.45	4.88	4.36	4.09
1F113	P-4096*	10.0 CT	5	4x3¼x3⅛"	C	4	6.95	6.50	5.82	5.20	4.88
1F141	P-6458	10.0 CT	5.0	3¹⁄₁₆x2½x2⅞"	BV	3	4.53	4.23	3.79	3.39	3.18
1F114	P-4097*	10.0 CT	8	4x3¼x3⅝"	C	5¼	7.52	7.03	6.30	5.63	5.28
1F119	P-6139*	10.0 CT	8.0	3⅞x3⅛x3⅛"	BV	5	7.21	6.75	6.04	5.40	5.06
1F142	P-6461	10.0 CT	10.0	3⅞x3¼x3⅝"	C	5	8.45	7.90	7.07	6.32	5.93
1F120	P-8130	12.6 CT	2.0	2x3¼x2"	A	1½	3.29	3.08	2.76	2.47	2.31
1F116	P-6469	25.2	1.0	2x3¼x2"	A	1½	3.14	2.93	2.63	2.35	2.20

FILAMENT TRANSFORMERS WITH MULTIPLE SECONDARY

Stk. No.	Type	Secondary Volts	Secondary Amps.	RMSV Insul.	Pri. V.	Fig.	Ht.	Base Area	Shpg. wt. Lbs.	1-9	10-24	25-49	50-99	100-249
1F129	P-4022*	5.0 CT 6.3 CT	6.0 6.0	2500 2500	117/107	C	4	3⅛x3½"	4.8	8.06	7.53	6.75	6.03	5.65
1F130	P-6333	5.0 5.0 6.3 CT 7.5/ 6.3 CT	3.0 3.0 4.0 3.0	2500 2500 2500 2500	117	BH	2⅞	2⅞x3⅜"	4.7	9.05	8.47	7.58	6.77	6.35

FILTER CHOKES

Stk. No.	Type	Hys.	Ma	Ohms	Size	Fig.	Lbs.	1-9	10-24	25-49	50-99	100-249
1F176	C-2328	0.8	375	25	2¼x3¾x2"	A	1½	3.46	3.23	2.90	2.59	2.43
1F510	C-2326	1.0	300	43	2¼x3¾x2¼"	A	1¾	2.79	2.62	2.34	2.09	1.96
1F533	C-2327	1.5	200	85	1⅝x2⅞x1½"	A	1	1.72	1.62	1.45	1.29	1.21
1F509	C-2325	2.0	200	60	2¼x3¾x2¼"	A	2	2.74	2.57	2.30	2.05	1.93
1F165	C-2304	2.3	150	60	2x3¼x1¾"	A	1	2.16	2.02	1.81	1.61	1.51
1F164	C-2303	2.5	130	100	2x3¼x1¾"	A	1	2.16	2.02	1.81	1.61	1.51
1F177	C-2334	2.8	300	60	2⅝x2¼x4"	A	2½	3.40	3.18	2.85	2.55	2.39
1F167	C-2309	3	150	90	2¼x3¾x2¼"	A	1¾	2.48	2.32	2.07	1.85	1.72
1F150	C-1410	4	175	100	3³⁄₁₆x2⅝x2⅝"	C	2½	4.35	4.08	3.66	3.27	3.06
1F153	C-1703	4	250	60	3½x2⅞x3³⁄₁₆"	BV	4¼	5.97	5.58	5.00	4.47	4.19
1F173	C-1412	4.0	250	60	3x3½x3⅝"	C	4⅓	6.70	6.27	5.61	5.01	4.70
1F156	C-1706	4.5	50	300	1⅜x2⅜x1⅜"	A	½	1.22	1.15	1.03	.92	.86
1F151	C-1411	4.5	200	80	3⅝x3x3⅛"	C	3½	5.45	5.10	4.57	4.08	3.83
1F166	C-2305	5	100	300	2¹¹⁄₁₆x2¾x2³⁄₁₆"	TD	1½	3.31	3.10	2.78	2.48	2.35
1F152	C-1646	5	200	90	4x3¼x3⅜"	C	4½	6.54	6.12	5.48	4.89	4.59
1F157	C-1707	7	50	550	1⅜x2⅜x1⅜"	A	½	1.35	1.27	1.13	1.01	.95
1F171	C-1421	7.0	140	165	2⅝x2⅝x3³⁄₁₆"	C	2½	4.46	4.17	3.73	3.33	3.13
1F160	C-1710	7	150	200	2⅝x4x2¼"	A	2¼	3.46	3.23	2.90	2.59	2.43
1F338	C-1414	7.5	400	60	4¾x4x5⅛"	D	11-4/5	15.09	14.12	12.64	11.29	10.59
1F169	C-1355	8.0	75	290	2⁵⁄₁₆x1¾x2¹⁄₁₆"	L	1	2.55	2.38	2.13	1.91	1.79
1F159	C-1709	8	85	250	2x3¼x2"	A	1½	2.31	2.17	1.94	1.73	1.63
1F154	C-2308	8	300	80	4¾x4x3⅞"	C	8	10.62	9.93	8.90	7.95	7.45
1F172	C-1721	8.5	200	120	3⅛x3x3⅞"	NV	4½	7.21	6.75	6.04	5.54	5.06
1F163	C-1001	10.5	110	225	2⅝x4x2¼"	A	2⅓	3.43	3.22	2.88	2.57	2.41
1F175	C-2318	12.0	30	400	1⅜x2⅜x1⅜"	A	½	1.76	1.65	1.48	1.32	1.24
1F158	C-1708	13	65	500	2x3¼x1¾"	A	1	2.31	2.17	1.94	1.73	1.63
1F162	C-1002	15	75	400	2¼x3¾x2¼"	A	1¾	2.78	2.60	2.33	2.08	1.95
1F170	C-1420	16.0	80	360	2⅝x2⅝x3³⁄₁₆"	C	2½	4.46	4.17	3.73	3.33	3.13
1F178	C-1515	20.0	15	900	1⅝x2⅞x1½"	A	¾	1.97	1.93	1.73	1.55	1.45

NEWARK HAS FOR IMMEDIATE DELIVERY, THE MOST COMPLETE STOCK OF ELECTRONIC EQUIPMENT AT MONEY-SAVING PRICES.

STANCOR TRANSFORMERS

TELEVISION POWER TRANSFORMER

Stk. No.	Type	Plate ACV	Plate DCMA	Rect. V.	Fil. A.	Other Fils. V.	Other Fils. A.	Mtg. Ctrs.	Fig.	1-9	10-24	25-49	50-99	100-249
1F565	P8170	760 CT	220	5.0	3.0	6.3 6.3† 6.3†	1.2 5.0 7.0	3x3 9/16	C	16.31	14.97	13.47	12.48	11.88

†May be used as 6.3 V. windings or in series as 12.6 V. CT.

TV BOOSTER TRANSFORMER

Stock No.	Type	Plate Supply AC Volts	Plate Supply DCMA	Filament Volts	Filament Amps	Ht.	Base Area	Mtg. Ctrs.	Fig.	1-9	10-24	25-49	50-99	100-249
1F525	P-8181	150 half wave	25	6.3	0.5	2	2 7/16x1¾	2	VE	3.22	2.96	2.66	2.46	2.34

STANCOR TV FLYBACK REPLACEMENTS

Stk. No.	Type	Application	1-9	10-24	25-49	50-99	100-249
1F532	A-8130	Silvertone, GE77J1	7.17	6.58	5.93	5.48	5.22
1F551	A-8133	Admiral 79C30-1, -3	9.89	9.07	8.17	7.56	7.20
1F552	A-8134	Adm. 79C30-2, -4, 79C38-1, 79D38-1	8.96	8.22	7.40	6.85	6.52
1F555	A-8135	Admiral 79D41-1, -2	7.64	7.02	6.32	5.85	5.57
1F592	A-8240	Muntz TO-0036	7.06	6.48	5.83	5.40	5.14

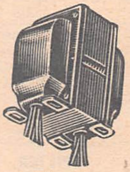


Fig. C

VERTICAL DEFLECTION OUTPUT TRANSFORMERS *Autoformer type

Stk. No.	Type	Primary Imp. Ω	Primary DCMA	Turns Ratio	Mtg. Ctrs.	Wt.	1 to 9	10 to 24	25 to 49	50 to 99	100 to 249
1F511	A-8112	18,000	12	10:1	2 13/16	1.0	2.94	2.70	2.43	2.25	2.14
1F530	A-8123*	17,000	20	11.4:1	2 13/16	1.2	2.91	2.67	2.40	2.23	2.12
1F479	A-8141*	30,000	10	18:1	3 1/8	1.5	4.15	3.84	3.46	3.20	3.05

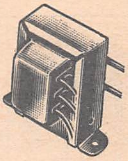


Fig. VE

WIDTH COIL TRANSFORMERS

Stk. No.	Type	Application	Inductance	1-9	10-24	25-49	50-99	100-249
1F702	WC-1, A	Width Coil	.050-50 mh	1.22	1.11	1.00	.93	.88
1F705	WC-5, A	Wid. Coil or Line. Co.	4-39 mh	1.37	1.26	1.13	1.05	1.00
1F708	WC-8, A	Width Coil	1.0-10.0 mh	1.11	1.02	.92	.85	.81

7/16" mounting hole. Shipping weight in lbs.: 0.3

VERTICAL BLOCKING OSCILLATOR

Stk. No.	Type	Turns Ratio Pri./Sec.	Mtg. Ctr.	Fig.	Wt.	1 to 9	10 to 24	25 to 49	50 to 99	100 to 249
1F542	A-8125	1:4.2	1¾	A	0.4	1.91	1.75	1.58	1.46	1.39

Case Style A

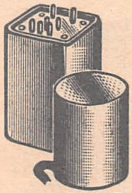
NEWARK'S 7 GIANT WAREHOUSES SERVE ALL YOUR ELECTRONIC NEEDS

PEERLESS TRANSFORMERS

INPUT TRANSFORMER

Case Style D.

Stk. No.	Type	Application	Pri. Imp.	Sec. Imp.	H. (in.)	D. (in.)	W. (in.)	Lbs.	1-9	10-24	25-49	50-99	100-249	250 up
7F110	K-241-D	Sgle ended or p.p.	500-280-125-31 or 600-340-150-37.5	70,000 or 84,000	2¾	1½	2	1	30.00	27.93	26.46	24.99	23.75	22.49



Case Style D

PLATE AND FILAMENT TRANSFORMER

Case Style F.

Stock No.	Type	HV SEC. AC V.	HV SEC. DC ma	Fil. 5V	Curr. Amp. 6.3VCT	Size, In. H.	Size, In. D.	Size, In. W.	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250 up
7F103	R-631-F	500-435-0-435-500	225	3	6	6	4¾	4 1/16	12	36.75	34.91	33.08	31.24	29.68	28.12

OUTPUT TRANSFORMER

Case Style D.

Stk. No.	Type	Application	Pri. Imp.	Sec. Imp.	Watt	H. (in.)	D. (in.)	W. (in.)	Lbs.	1-9	10-24	25-49	50-99	100-249	250 up
7F116	S-217-D	Sgle., ended or p.p.	12,500 3125	600-300 150-75	0.1	3¼	1½	2	1¼	38.40	35.75	33.87	31.99	30.39	28.79

Case Style F

IMPEDANCE MATCHING TRANSFORMERS

Case Style Q and D.

Stk. No.	Type	Pri. Imp.	Sec. Imp.	Max. Level	H. (in.)	D. (in.)	W. (in.)	Lbs.	1-9	10-24	25-49	50-99	100-249	250 up
7F122	E-372-Q	500CT-333 250-200CT 125-50	500CT-333 250-200CT 125-50	+18dbm	3½	2⅜	2½	1½	22.50	20.95	19.85	18.74	17.80	16.87
7F123	E-204-D	500/125CT 600/150CT	500/125CT 600/150CT	+23dbm	3¼	1½	2	1¼	40.20	37.43	35.46	33.49	31.82	30.14

Case
Style Q

The last letter in the type number indicates case style.

COMBINATION PLATE AND FILAMENT TRANSFORMER

Case Style F.

Stk. No.	Type	High Voltage Sec. AC Volts	High Voltage Sec. DC MA.	Fil. 5 V.	Amps 6.3 VCT	Size	Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
1F208	R-340F	325-0-325	100	3.	5.	4⅜x3 1/16x2¾	4	20.25	19.15	18.04	17.90	16.87	15.77

TRANSFORMERS

"S" SERIES DIMENSIONS

Case	HxWxD	Lbs	Case	HxWxD	Lbs.
G-1	1⅞x2¹³⁄₁₆x1¾"	1	G-8	4⅝x5⅜x5⅜"	12
G-2	2⁵⁄₁₆x3⅜x1¹⁵⁄₁₆"	1½	G-9	5⅞x5⅜x6¾"	21
G-3	2½x3¾x2⁵⁄₃₂"	2	G-10	5⅞x6⅛x6⅝"	24
G-4	2¹⁵⁄₁₆x4⅛x2⁵⁄₁₆"	3	G-11	5⅞x6½x7⅜"	31
G-5	3¾x3⅛x4½"	4½	G-12	10¼x7⅜x9¼"	52
G-7	4⅝x4⅝x5½"	8			

PLATE TRANSFORMERS

*Assorted †Of one type only

Stock No.	Type	High VAC	DCMA	Fig.	1-24*	25-99*	100-up*	100-499†
3F040	S-44	1150-1050 CT	500	G-9	25.80	21.93	20.64	17.20
3F041	S-45	1800-1500 CT	200	G-8	21.00	17.85	16.80	14.00
3F043	S-47	3000-2500 2000 CT	300	G-10	33.00	28.05	26.40	22.00
3F044	S-48	Same as above	500	G-11	39.00	33.15	31.20	26.00
3F045	S-49	4200-3600-3000 CT	300	G-11	36.00	30.60	28.80	24.00
3F046	S-50	6000-5000 CT	300	G-12	60.00	51.00	48.00	40.00
3F047	S-51	DC Bias, 15 to 100 V	200	G-5	12.00	10.20	9.60	8.00

FILTER, SWINGING AND AUDIO CHOKES

**Audio. ††P.P. audio CT. M=Millihenries, A=Amperes. ‡Swinging. All others are filter types.

*Assorted †Of one type only

Stock No.	Type	Hnry.	Ma.	Ohms	Test V.	Fig.	1-24*	25-99*	100-up*	100-499†
3F100	S-23**	300	5	5000	1500	G-2	4.50	3.83	3.60	3.00
3F101	S-24††	500	3	6000	1500	G-2	5.10	4.34	4.08	3.40
3F102	S-25	30	30	800	1500	G-2	3.90	3.32	3.12	2.60
3F103	S-26	12	60	250	1500	G-2	3.90	3.32	3.12	2.60
3F104	S-27	25	75	350	1500	G-4	5.10	4.34	4.08	3.40
3F106	S-29	6	175	90	1500	G-4	5.10	4.34	4.08	3.40
3F107	S-30‡	4/20	175	90	1500	G-4	5.10	4.34	4.08	3.40
3F108	S-31	6	225	100	2700	G-5	6.90	5.87	5.52	4.60
3F109	S-32‡	4/20	225	100	2700	G-5	6.90	5.87	5.52	4.60
3F110	S-33	8	300	100	4000	G-7	9.30	7.91	7.44	6.20
3F111	S-34‡	4/20	300	100	4000	G-7	9.60	8.16	7.68	6.40
3F112	S-35	8	400	60	5000	G-8	12.00	10.20	9.60	8.00
3F113	S-36‡	4/20	400	60	5000	G-8	12.00	10.20	9.60	8.00
3F114	S-37	8	550	60	6000	G-8	15.00	12.75	12.00	10.00
3F115	S-38‡	4/20	550	60	6000	G-8	15.00	12.75	12.00	10.00
3F095	S-80‡	100/-10M	1.75A	.5	500	G-1	3.90	3.32	3.12	2.60
3F096	S-81‡	100/-8M 25/2M	2.5A 5A	.6 .15	1500	G-3	6.00	5.10	4.80	4.00

FILAMENT TRANSFORMERS—105-115 V PRIMARIES

Stock No.	Type	Sec. (CT)	Sec. Amps	Insulation V.	Fig.	1-24*	25-99*	100-up*	100-499†
3F000	S-53	2.5	10	1,500	G-3	6.30	5.36	5.04	4.20
3F001	S-54	5	4	2,500	G-3	5.70	4.85	4.56	3.80
3F002	S-55	6.3	3	1,500	G-3	5.40	4.59	4.32	3.60
3F004	S-57	2.5	10	10,000	G-5	9.00	7.65	7.20	6.00
3F005	S-58	2.5	20	10,000	G-5	9.90	8.42	7.92	6.60
3F006	S-59	5-5.25	13	5,000	G-5	9.30	7.91	7.44	6.20
3F007	S-60	5-5.25	22	10,000	G-7	13.20	11.22	10.56	8.80
3F008	S-61	7.5, 6.3	10	3,000	G-5	10.20	8.67	8.16	6.80
3F009	S-62	10	10	3,000	G-5	9.30	7.91	7.44	6.20
3F010	S-63	14, 12, 11	10	5,000	G-7	13.20	11.22	10.56	8.80

MULTIPLE FILAMENT TRANSFORMERS

Insulation, 3000 V except S-72, 5000 V. G-5 case.

Stock No.	Type	Fil. 1 V	Fil. 1 A	Fil. 2 V	Fil. 2 A	Fil. 3 V	Fil. 3 A	1-24*	25-99*	100-up*	100-499†
3F026	S-70	6,3CT	5	6.3CT	5			10.20	8.67	8.16	6.80
3F028	S-72	5CT	3	5CT	3	5CT	6	11.40	9.69	9.12	7.60

LINE MATCHING TRANSFORMERS

Stock No.	Type	Line to spkr.	Primary	Sec.	Fig.	1-24*	25-99*	100-up*	100-499†
3F161	S-12	15W	500, 2000, 4000	2,4,8,15	G-2	5.40	4.59	4.32	3.60

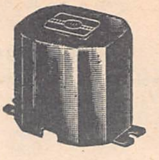
UNIVERSAL DRIVERS

Stock No.	Type	Application	Fig.	1-24*	25-99*	100-up*	100-499†
3F180	S-8	Sgl. dr. plate to PP grids	G-3	6.60	5.61	5.28	4.40
3F181	S-9	PP pl. to class B tube grids	G-4	8.70	7.40	6.96	5.80
3F182	S-10	PP pl. to 5881, or 6L6's	G-3	6.60	5.61	5.28	4.40

UNIVERSAL OUTPUTS—TO LINE AND VOICE COIL

All have secondary impedance: 500, 15, 8, 2 ohms

Stock No.	Type	Primary Impedance	W.	Fig.	1-24*	25-99*	100-up*	100-499†
3F190	S-14	2500, 4000, 7,000, 10,000	10	G-2	6.60	5.61	5.28	4.40
3F191	S-15	PP tubes: 4000, 5000, 10,000	12	G-2	7.20	6.12	5.76	4.80
3F192	S-16	PP3000, 6000, 9000-10,000	30	G-4	8.40	7.14	6.72	5.60



G-1 G-2
G-3 G-4

A

G-5
G-7 thru G-12

PLATE AND FILAMENT TRANSFORMERS

*Assorted †Of one type only

Stock No.	Type	Ratings	Fig.	1-24*	25-99*	100-up*	100-499†
3F031	S-40	H. V.; 1050-850 CT at 250 ma. Rect. fil. 5V-3A, fil. No. 1, 6.3 VCT-3A; fil. No. 2, 6.3 VCT-3A	G-7	18.00	15.30	14.40	12.00
3F032	S-41	H. V.; 1200 CT at 200 ma., Rect. fil.; 5V-3A; fil. No. 1, 7.5 V tapped, 6.3 V-3A; fil. No. 2, 6.3 VCT-2A	G-7	18.00	15.30	14.40	12.00
3F033	S-42	H., V.; 1200-1050 CT at 300 ma. Rect. fil.; 5V-6A; fil. No. 1, 7.5 V tapped, 6.3 V-3A; fil. No. 2, 6.3 VCT-3A	G-8	19.50	16.58	15.60	13.00

UNIVERSAL MODULATION TRANSFORMERS

Stock No.	Type	Watts	Fig.	1-24*	25-99*	100-up*	100-499†
3F170	S-18	12	G-3	7.20	6.12	5.76	4.80
3F171	S-19	30	G-4	9.30	7.91	7.44	6.20
3F172	S-20	55	G-5	15.00	12.75	12.00	10.00
3F174	S-22	250	G-9	33.00	28.05	26.40	22.00

ULTRA COMPACT "A" SERIES

Excellent shielding Max. level 7 db. For top or bottom mtg. Size 1½x1½x2". See Fig. A. ‡Indicates split winding.

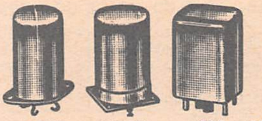
*Assorted †Of one type only

Stock No.	Type	Pri. Imped.	Sec. Imped.	±2 db.	1-24*	25-99*	100-up*	100-499†
3F340	A-10	50, 125-150, 200-250, 333, 500-600	50,000‡	20-20,000	13.20	11.22	10.56	8.80
3F341	A-11	50, 200, 500	50,000 CT	20-20,000	12.00	10.20	9.60	8.00
3F342	A-12	50, 125-150, 200-250, 333, 500-600	80,000‡	20-20,000	12.00	10.20	9.60	8.00
3F354	A-15	10,000/2,500‡	2000/500‡	40-20,000	9.90	8.42	7.92	6.60
3F344	A-16	15,000	60,000	20-20,000	9.90	8.42	7.92	6.60
3F345	A-18	15,000	80,000pp‡	20-20,000	12.00	10.20	9.60	8.00
3F346	A-19	15,000, 8 ma DC Pri.	80,000pp‡	40-20,000	12.00	10.20	9.60	8.00
3F347	A-20	50, 125-150, 200, 250, 333, 500-600	Same as Pri.	10-50,000	14.40	12.24	11.52	9.60
3F348	A-21	50, 200-250, 500-600	Same as Pri.	30-30,000	12.00	10.20	9.60	8.00
3F355	A-22	500 CT	500/125‡	40-20,000	9.90	8.42	7.92	6.60
3F349	A-24	15,000‡	50, 125-150, 200-250, 333, 500-600	20-40,000	12.90	10.97	10.32	8.60
3F350	A-25	15,000, 8 ma DC Pri.	Same as above	40-20,000	12.00	10.20	9.60	8.00
3F351	A-26	30,000 P to P	Same as above	20-40,000	13.20	11.22	10.56	8.80
3F352	A-27	100,000‡	Same as above	30-20,000	12.00	10.20	9.60	8.00
3F079	A-34	25,000/6250‡	500/125‡	30-20,000	10.20	8.67	8.16	6.80
3F080	A-35	10,000/2500‡	500/125‡	30-20,000	9.90	8.42	7.92	6.60
3F097	A-36	500/125‡	150/37.5‡	40-20,000	9.60	8.16	7.68	6.40
3F098	A-37	500/125‡	50/12.5‡	40-20,000	9.60	8.16	7.68	6.40
3F099	A-38	100/25‡	40/10‡	40-20,000	9.30	7.91	7.44	6.20
3F357	A-32	Filter choke 60 hys @ 15 ma, 15 hys. @ 30 MA			6.60	5.61	5.28	4.40
3F051	A-41	Filter choke 60 Mhy. @ .4A 240 Mhy. @ .2A			6.30	5.36	5.04	4.20
3F050	A-40	Transformer, 115V 60 cycle to two 6.3V CT .2A secs.			9.90	8.42	7.92	6.60
3F358	A-33	Mumetal shield slip fit over A case			2.70	2.30	2.16	1.80

UTC TRANSFORMERS

HERMETICALLY SEALED COMPONENTS

Hermetically sealed audio units that meet MIL-T-27A specifications. For use where a maximum of sealing and quality construction is required. Compact Audio Units below employ glass bead headers or terminals. Units in RC-25 case are 1 13/32x61/64x1 7/16". Mtg. (slot center) 1⅛ to 1 7/32", and weigh 1½ oz.; RC-50 case units are 1⅝x1⅝x2 5/16", weight ½ lb.; SM case units 1 1/16x½x29/32", weight 8/10 oz. Response ±2 db except ‡ ±4 db. § center tapped.



MINIATURE AUDIO UNITS IN RC-25 CASE

*Assorted. †Of one type only.

Stock No.	No.	Uses	Pri Ohms	Sec Ohms	Response in Cycles	1-24	25-99*	100-up*	100-499†
3F450	H-1	Mike, pick-up, line to grid	50,000§ 500§	50,000	50-10,000	9.00	7.65	7.20	6.00
3F451	H-2	Mike to grid	82	135,000	250-8,000	9.90	8.42	7.92	6.60
3F452	H-3	Sgl. pl.-sgl. g.	15,000	60,000	50-10,000	7.80	6.63	6.24	5.20
3F453	H-4	As above, with DC in pri.,	15,000	60,000	200-10,000	7.80	6.63	6.24	5.20
3F454	H-5	Sgl. pl.-PP g.	15,000	95,000§	50-10,000	8.40	7.14	6.72	5.60
3F455	H-6	As above, with DC in pri.	15,000	95,000 split	200-10,000	10.20	8.67	8.16	6.80
3F456	H-7	Single or PP plates to line	20,000§	150/600	200-10,000	9.60	8.16	7.68	6.40
3F457	H-8	Mix/Match	150/600	600§	50-10,000	9.00	7.65	7.20	6.00
3F459	H-10	10:1, 1 pl.-1 g.	10,000	1 meg	200-3,000‡	8.40	7.14	6.72	5.60
3F460	H-11	Reactor 300 hy @ 0 DC, 50 hy @ 3 ma DC 6000 ohms				7.50	6.38	6.00	5.00

COMPACT AUDIO UNITS IN RC50 CASE

*Assorted. †Of one type only.

Stock No.	No.	Uses	Pri. Ohms	Sec. Ohms	Resp. (Cps)	1-24	25-99*	100-up*	100-499†
3F487	H-19A	Bal. line to grid 1:14, 75 db mult. shield'g.	250** 500**	50,000 100K§	30-20,000	16.50	14.03	13.20	11.00
3F462	H-21	Single plate to PP grids, DC in Pri.	15,000	80,000 split	100-20,000	18.00	15.30	14.40	12.00
3F463	H-22	Single plate to multiple line	15,000	50/200 125/500	50-20,000	15.90	13.52	12.72	10.60
3F464	H-23	PP plates to multiple line	30,000 split	50/200 125/500	30-20,000	16.20	13.77	12.96	10.80

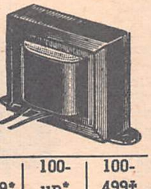
HERMETICALLY SEALED POWER TRANSFORMERS

Primaries are for 115 v, 50-60 cycle AC. DC output voltages are conservative MIL-T-27A ratings for adverse conditions. Cases similar to SM above. Mtg. ctrs. and shpg. wts.: H-81, 2 19/64x1 55/64", 5 lbs.; H-83, 2⅝x2⅛", 7 lbs.; H-87, 4 1/16x3 5/16", 17½ lbs. Filament volt, 6.3.

*Assorted. †Of one type only.

Stock No.	Type	VAC	Choke In. DC V	Choke In. Ma	Cond. In. DC V	Cond. In. Ma	Rect. A	Rect. V	Fil A	1-24	25-99*	100-up*	100-499†
3F060	H-81	500 550	170 200	95 85	270 310	55 50	2	5	3	18.00	15.30	14.40	12.00
3F061	H-83	600 670	215 250	165 150	315 400	100 90	2	5	5	21.00	17.85	16.80	14.00
3F063	H-87	730 800	245 275	420 400	390 440	275 250	4	5	6 2	36.00	30.60	28.80	24.00

FILAMENT/TRANSISTOR TRANSFORMERS



Channel Frame Type. Primary: 115 volts, 50/60 cycles—Test Volts RMS: 1500. All units are low temperature rise, vacuum-sealed against humidity with special impregnating materials to prevent corrosion and electrolysis. Approximate wt., 2 lbs.

*Assorted. †Of one type only.

Stock No.	Type	Secondary Volts	Secondary Amps.	Mtg. Ctrs.	1-24	25-99*	100-up*	100-499†
3F295	FT-2	6.3 CT	1.2	2⅜	3.15	2.68	2.52	2.10
3F296	FT-4	6.3 CT	3	2 13/16	3.45	2.93	2.76	2.30
3F297	FT-6	5 CT	3	3⅛	4.05	3.44	3.24	2.70
3F298	FT-8	6.3 CT	8	3 9/16	4.80	4.08	3.84	3.20
3F299	FT-10	24 CT or 12	2 4	3 9/16	5.10	4.34	4.08	3.40

SAVE WORK! Make Newark your Complete 1-Point Stock Source!

SAVE TIME! At Newark—fast, efficient service always!

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Quantity Prices Competitive with Manufacturer!

UTC INTERSTAGE AND LINE FILTERS

BMI and BML types are band-pass units, HMI and HML types are high-pass units. LMI types are low-pass units. Filters with I in type number are interstage, input imp., 10,000 ohms, L in type number are line units. All housed in hermetically sealed cases, shielded to reduce hum pick-up to 150 mv per gauss at 60 cycles. Base area, 1 3/16x1 11/16". Mtg. ctrs., ¾x1¼". Ht.: BMI, LMI, BML, 1⅝". HMI, HML, LML, 2½". Average weight, 8 ounces.

*Assorted. †Of one type only.

Stk. No.	Type	Freq.	1-24	25-99*	100-up*	100-499†
3F477	BMI-60	60	30.00	25.50	24.00	20.00
3F558	BMI-100	100				
3F559	BMI-120	120				
3F478	BMI-400	400				
3F479	BMI-1000	1000				
3F565	BMI-5000	5000				
3F566	BMI-10000	10000				
3F567	HMI-200	200	31.50	26.78	25.20	21.00
3F573	BML-1000	1000	30.00	25.50	24.00	20.00
3F481	LMI-200	200	31.50	26.78	25.20	21.00
3F574	LMI-400	400				
3F575	LMI-500	500				
3F576	LMI-800	800				
3F577	LMI-1000	1000				
3F482	LMI-3000	3000				
3F580	LMI-4000	4000				
3F581	LMI-5000	5000				
3F484	HML-200	200	39.00	33.15	31.20	26.00
3F583	HML-300	300				
3F584	HML-500	500				
3F590	LML-4000	4000	31.50	26.78	25.20	21.00

BPM 1000 MINIFILTER

Provides almost the same characteristics as larger units with only slightly less attenuation and operating levels. Input and output 10,000 ohms. Case similar to SM above size: ¾x¾x1⅛". Wt. 1 oz.

Stk. No.	Type	Freq.	1-24	25-99	100-499
3F037	BPM-1000	1000	27.00	22.95	18.00

HERMETICALLY SEALED FILTER CHOKES

Specifications are MIL-T-27A, for all types. Cases similar to SM. *Assorted. †Of one type only.

Stock No.	Type	Max. Hys.	Cur. Ma	Res. Ohms	Mtg. Ctrs.	1-24	25-99*	100-up*	100-499†
3F057	H-72	7	125	215	2⅛x 1¾"	9.00	7.65	7.20	6.00
3F058	H-74	6.5	215	135	2⅝x 2⅛"	12.90	10.97	10.32	8.60

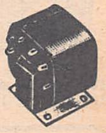
HERMETICALLY SEALED 6.3V. FILAMENT TRANSFORMERS

Fully meet MIL-T-27A specifications. Current ratings are given for both military and industrial use. Case is similar to SM above. Center tapped secondary. Pri. 115/220 Volts, 50-60 cycles. Wt., 3½ to 6 lbs.

*Assorted. †Of one type only.

Stock No.	Type	Amps. (MIL)	Amps (Ind.)	Size	1-24	25-99*	100-up*	100-499†
3F075	H-132	6 6	7 7	3 9/16x3 1/16x4⅞	19.20	16.32	15.36	12.80
3F077	H-134	10	12	3 1/16x2⅝x4¼	16.80	14.28	13.44	11.20

400-CYCLE FILAMENT TRANSFORMERS



These new transformers combine smallness of size and lightness of weight with the maximum possible reliability. These versatile midgets are suitable for either ground or airborne use applications. Molded specifically to meet MIL-T-27A specifications. Primary, 105/115 volts, 380-1000 cycles per second. Secondary, 6.3 volts, center tap.

*Assorted. †Of one type only.

Stock No.	Type	Sec. Amp.	LxWxH	Wt. Lbs.	NET 1-24	NET 25-99*	NET 100-up*	NET 100-499†
3F071	H-101	3.5	1 25/32x1 21/32x2"	.3	14.10	11.99	11.28	9.40
3F073	H-103	10	2 5/16x2⅛x2½"	.8	17.40	14.79	13.92	11.60

THE COMPLETE LINE OF UTC TRANSFORMERS IS AVAILABLE ON REQUEST

UTC TRANSFORMERS

NEWARK CARRIES COMPLETE
STOCKS OF UTC TRANSFORMERS

TYPE LS—LINE TO VOICE COIL TRANSFORMERS

Response: ± 1 DB 7cy to 50kc except (‡) 10cy to 50 kc and (**) 30cy to 20kc. All max. level: 20 watts except LS-140. All in LS-2 case. Size: $4\frac{7}{16}$x$3\frac{1}{2}$x$4\frac{3}{16}$". Wt. $7\frac{1}{2}$ lbs., except LS-140 which is in LS-1 case. Size: $3\frac{1}{8}$x$2\frac{5}{8}$x$3\frac{1}{4}$". Wt. 3 lbs.
***Assorted † of 1 type only**

Stk. No.	Type	PRI P to P Ohms	Sec. Imp.	1-24*	25-99*	100-up*	100-249†
3F200	LS-52	8,000	500, 300, 250/200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2,	**24.00**	**20.40**	**19.20**	**16.00**
3F202	LS-55	5,000 3,000					
3F546	LS61	10,000 6,000					
3F547	LS-56‡	5,000 3,000	6,000, 5,000, 4,000, 18,000, 1500, 1000, 30, 20, 15, 10, 7.5, 3, 2.5, 1.2,	**27.00**	**22.95**	**21.60**	**18.00**
3F548	LS-63**	10,000 6,000	30, 20, 15, 10, 7.5, 5, 2.5, 1.2,	**21.00**	**17.85**	**16.80**	**14.00**
3F549	LS-140**	500/600 Split	500/600 Split	**27.00**	**22.95**	**21.60**	**18.00**

PLATE TO LINE TRANSFORMERS

Type LS-51 is for PP low-level plates to multiple line. Has secondary impedances, 50, 125-150, 200, 250, 333, 500-600 ohms. Pri. imped. given below. Shpg. wt., 3 lbs.

***Assorted. †Of one type only.**

Stk. No.	Type	Pri. Ohms	±1 db From:	Max. db	1-24*	25-99*	100-up*	100-499†
3F222	LS-51	30,000	10-40,000 cps	+24	**27.00**	**22.95**	**21.60**	**18.00**

LINE TO LINE MIXING TRANSFORMERS

All have secondary impedances. 50, 125-150, 200, 250, 333, 500-600 ohms. Response, 1 db. 20-20,000 cps. Maximum unbalanced DC in primary, .5 ma. Type 30X is quadruple shielded and has .3 ma. unbalanced DC in primary. All in LS-1 case. $2\frac{5}{8}$x$3\frac{1}{4}$x$3\frac{1}{8}$". Wt., 3 lbs.
**Represents comparison of these units with uncased type.

***Assorted. †Of one type only.**

Stk. No.	Type	Primary	Max. Level	Hum**	1-24*	25-99*	100-up*	100-499†
3F231	LS-30X	50, 125/150, 200/250. 333 500/600 ohms	+20 db	—92 db	**27.00**	**22.95**	**21.60**	**18.00**
3F234	LS-32	2.5, 5.5, 10, 15, 22, 30, 38, 60 ohms	+23 db	—74 db	**33.00**	**28.05**	**26.40**	**22.00**

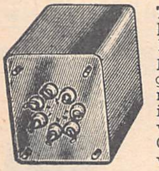
"HA" LOW IMPEDANCE TO GRID TRANSFORMERS

Six taps on primary cover, 50, 125-150, 200, 250, 333, 500-600 ohms, Uniform response of ±1 db from 30-20,000 cps, Max. level +20 db. Max. unbalanced DC in primary, .5 ma. All have 2-section secondaries. Case similar to HA above. $1\frac{15}{16}$x$3\frac{1}{8}$x$2\frac{3}{8}$". Shpg. wt., 2 lbs.

***Assorted. †Of one type only.**

Stk. No.	Type	Application	Secondary	1-24*	25-99*	100-up*	100-499†
3F261	HA-100X	Sgl. grid, tri-alloy shield	60,000 ohms	**17.40**	**14.79**	**13.92**	**11.60**
3F263	HA-101X	PP grids, with tri-alloy shield	80,000 ohms	**18.00**	**15.30**	**14.40**	**12.00**

OSCILLOSCOPE TRANSFORMER



Type H-198. Highly shielded scope transformer in hermetically sealed case to MIL-T-27A specs. 800, 1600 & 2400 V. plate windings (no CT) supply approx. 1000, 2000 or 3000 V. DC at 5 ma., allowing great flexibility in application. Has 1.25 V.—.2A rect. fil. winding connected to one end of HV winding. Separate 6.3 V.—.6 fil. winding insulated to withstand anode voltages. Pri. 115V. 50/60 cycle. Case similar to SM. Size: $3\frac{1}{16}$x$2\frac{5}{8}$x$4\frac{1}{4}$". Shipping weight, $4\frac{1}{2}$ lbs.

78. 1-24 (Assorted)................27.00 25-99 (Assorted)..............$22.95
100 up (Assorted)...21.60
100-499 (of 1 Type Only)......................................18.00

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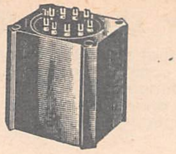
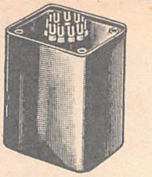


LS



HA

LOW IMPEDANCE TO GRID TRANSFORMERS

PP grids. All are in LS-1 case. Level +17 db except** +19 db. $2\frac{5}{8}$x$3\frac{1}{4}$x$3\frac{1}{8}$". Shpg. Wt., 3 lbs. ***Assorted. †Of one type only.**

Stk. No.	Type	Primary	Sec.	1-24*	25-99*	100-up*	100-499†
3F240	LS-10**	50, 125-150, 200, 250, 333, 500-600 ohms	60,000 in 2 sec.	**24.00**	**20.40**	**19.20**	**16.00**
3F241	LS-10X	As above	50,000				
3F243	LS-12X	As above	80,000 in 2 sec.				

INTERSTAGE AUDIO TRANSFORMERS

Response, 1 db, 20-20,000 cps. Hum pickup reduction compared to uncased type, —74 db except LS-19 which is —50 db. LS-1 case ($2\frac{5}{8}$x$3\frac{1}{4}$x$3\frac{1}{8}$". Wt., 3 lbs.) ***Assorted. †Of one type only.** **Pri. Imp., 15,000 Ohms.**

Stk. No.	Type	Secondary	1-24*	25-99*	100-up*	100-499†
3F212	LS-21	135,000 ohms; 3:1	24.00	20.40	19.20	16.00
Pri. Imp., 30,000 Ohms. P. to P.						
3F214	LS-25	50,000 ohms; 1.3:1	27.00	22.95	21.60	18.00

HYBRID TRANSFORMERS

Type LS-141. Has three sets of center-tapped balanced windings for hybrid service. Primary and Secondary impedance, 500,600 ohms. Max., operating level, +18dbm. 30-15,000 cps. In LS-1 case. 3 lbs.

3F290. 1-24..............................21.00 25-99...............................17.85
100 up 16.80
100-499 of 1 Type Only..14.00

MATCHING TRANSFORMERS

Type LS-33. High level line matching transformer. Primary impedance: 50, 125-150, 200, 250, 333, 500/600 Secondary impedance in 14 steps from 1.2 to 500/600. Max. level, 20 watts. In LS-2 case. L. $4\frac{7}{16}$x W. $3\frac{1}{2}$ x H, $4\frac{3}{16}$". Wt., $7\frac{1}{2}$ lb.

3F235, 1-24 (assorted)........24.00 25-99 (assorted)........20.40
100 up (assorted)..19.20
100-499 (of one type only)....................................16.00

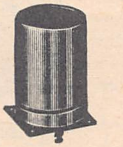
"HA" PLATE TO LINE TRANSFORMERS

Six secondary taps cover 50, 125-150, 200, 250, 333, 500-600 ohms. Response, ±1 db from 30-40,000 cps., HA-133 has 8 ma. DC in primary. HA-113 0 ma. HA-114 1 ma. All in H-1 case. $1\frac{15}{16}$x$3\frac{1}{8}$x$2\frac{3}{8}$". Shipping weight, 2 lbs.

***Assorted. †Of one type only.**

Stk. No.	Type	Application	Pri. Ohms	Db	1-24*	25-99*	100-up*	100-499†
3F275	HA-113	Plate to mult. line	15,000	+21	**18.00**	**15.30**	**14.40**	**12.00**
3F276	HA-114	PP plates to mult. line	30,000	+23	**21.00**	**17.85**	**16.80**	**14.00**
3F277	HA-133	Plate to mult. line	15,000	+22	**21.00**	**17.85**	**16.80**	**14.00**

CHOPPER TRANSFORMERS



Type H-290 chopper transformer is hermetically sealed to MIL-T-27A specs. Has high electrostatic shielding plus triple magnetic shield. 2500 ohm ½ pri. imp. 100,000 ohms sec. imp. 6.4 turns ratio ½ pri. to sec. 2.75 max. volts ½ pri. at 60 cycles. 450 ohm pri. res. 3,250 ohms sec. res. 90 Hy. min. L pri. 1V at 60 cycles. Size: $1\frac{5}{8}$"L x $1\frac{5}{8}$"W x $2\frac{5}{16}$"H. Shipping wt., 10 oz.

3F092. 1-24 (ass't)..19.80 25-99 (assorted) 16.83
100 up (assorted)....15.84 100-499 (of 1 type only)......13.20

Type H-291 chopper has exceptional electrostatic shielding (10 db greater than above) plus hum-bucking structure and triple magnetic shield. Unit is hermetically sealed to MIL-T-27A specs. 2000/500 ohms ½ pri. imp. 312,000 ohms sec. imp. 25/50 turns ratio ½ pri. to sec. 3.4/1.7 max. volts ½ pri. at 60 cycles. 30/7.5 Hy. min. L pri. 1V at 60 cycles. 320/80 ohms pri. res. 16,000 ohms sec. res. Size: $2\frac{1}{2}$"H. x $1\frac{13}{16}$" dia. Shipping wt., 1 lb. 4 oz.

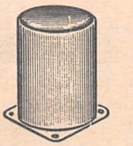
3F091. 1-24 (ass't)..28.80 25-99 (assorted) 24.48
100 up (assorted)....23.04 100-499 (of 1 type only)......19.20

UTC INDUCTORS & TRANSFORMERS

COMMERCIAL GRADE UNITS

Designed for commercial equipment and rated for continuous duty. Light gray, drawn cases, for chassis mounting. Special sealing compound and vacuum impregnated coils.

VARIMATCH MODULATION TRANSFORMERS



Provides universal range of load impedances for any modulation combination. Matches any modulator tube to any RF load. Secondary carries class C current Type RC case, mtg. ctrs., CVM-0, 2 3/8''; CVM-1, 3''; CVM-2, 3 9/16''; CVM-3, 4 1/8''; CVM-4, 4 7/8''.
***Assorted. †Of one type only**

No.	Type	W.	Mod. Tubes	Wt. Lbs.	1-24*	25-99*	100-up*	100-499†
3F300	CVM-0	12	6BQ5, 6V6,	5	10.50	8.93	8.40	7.00
3F301	CVM-1	30	6L6, 6V6, 5881, 7189	8	13.80	11.73	11.04	9.20
3F302	CVM-2	60	801, 6L6, 809	12	18.00	15.30	14.40	.... 12.00
3F303	CVM-3	125	807, TZ-20, 35T	20	21.00	17.85	16.80	.... 14.00
3F304	CVM-4	300	805, 838	30	39.00	33.15	31.20	26.00

FEEDBACK OUTPUT TRANSFORMERS

Secondary Impedances: 4, 8, 16 ohms and 70 volt line. Type RC case. ***Assorted. †Of one type only.**

No.	Type	Pri. Imped.	Tubes	1-24*	25-99*	100-up*	100-499†
3F488	CG-20	5,000 CT, 43% screen taps	EL-34 in AB	15.00	12.75	12.00	10.00

COMMERCIAL GRADE FILTER CHOKES

INDUCTANCE shown is at rated DC MA. Type RC case.
***Assorted. †Of one type only**

No.	Type	Henrys	DC MA	DC Res.	1-24*	25-99*	100-up*	100-499†
3F490	CG-40	10	200	110	8.10	6.89	6.48	5.40
3F491	CG-44	30	100	400	6.90	5.87	5.52	4.60
3F492	CG-104	10	350	90	15.00	12.75	12.00	10.00

COMMERCIAL GRADE SWINGING CHOKES

INDUCTANCE shown is from 100% to 10% of rated DC MA. Type RC case.

3F493	CG-105	5-25	350	90	15.00	12.75	12.00	10.00

COMMERCIAL GRADE FILAMENT TRANSFORMERS

Primary 105, 115, 210, 230 Volts, 50/60 Cycles. RC case.
***Assorted. †Of one type only.**

Stock No.	Type	Secondary Volts	Secondary Amps.	1-24*	25-99*	100-up*	100-499†
3F494	CG-33	6.3 CT	4	9.00	7.65	7.20	6.00

MINIATURE WIDE APPLICATION PULSE TRANSFORMERS

Hermetically sealed to MIL-T-27A . . . all MIL type TF5SX36ZZ. Where minimum rise time is important, use next lower type. ***Assorted. †Of one type only.**

No.	Type	App. 1-2	DCR, 3-4	Ω 5-6	Imp.	1-24*	25-99*	100-up*	100-499†
3F081	H-45	3	3.5	4	250	6.61	5.75	5.40	4.50
3F082	H-46	5.5	6.5	7	250	6.61	5.75	5.40	4.50
3F083	H-47	3.7	4.0	4	500	6.00	5.10	4.80	4.00
3F084	H-48	5.5	5.8	6	500	6.00	5.10	4.80	4.00
3F085	H-49	8	8.5	9	500	6.00	5.10	4.80	4.00
3F086	H-50	20	21	22	500	6.00	5.10	4.80	4.00
3F087	H-51	28	31	33	500	6.00	5.10	4.80	4.00
3F088	H-52	36	41	44	1000	6.00	5.10	4.80	4.00
3F089	H-53	37	44	49	1000	6.00	5.10	4.80	4.00
3F090	H-54	50	58	67	1000	6.18	5.36	5.04	4.20
2F633	H-60	.124	.14	.05	50	6.60	5.61	5.28	4.40
2F634	H-61	.41	.48	.19	50	6.60	5.61	5.28	4.40
2F635	H-62	.78	.94	.33	100	6.60	5.61	5.28	4.40
2F636	H-63	1.86	2.26	.70	100	6.60	5.61	5.28	4.40
2F637	H-64	3.73	4.40	1.33	100	6.60	5.61	5.28	4.40
2F638	H-65	6.20	7.30	2.22	100	7.50	6.38	6.00	5.00
2F639	H-66	10.2	12	3.6	100	7.50	6.38	6.00	5.00
2F640	H-67	14.5	17.5	5.14	200	7.50	6.38	6.00	5.00
2F641	H-68	42.3	52.1	14.8	200	7.50	6.38	6.00	5.00

HERMETIC VARIDUCTORS

Variable inductors with higher "Q" and wider inductance ranges . . . plus hermetic sealing to MIL-27 specs. Screw adjustment on top permits inductance changes from —70% to +200% of mean value. DC current shown is maximum recommended. All 1 1/8x25/32''x1 7/32''. Weight, 2 ounces.
***Assorted. †Of one type only.**

No.	Mfr's. Type	Min. Hys.	Mean Hys.	Max. Hys.	DC Ma	1-24*	25-99*	100-up*	100-499†
3F534	HVC-1	.002	.006	.02	100	9.00	7.65	7.20	6.00
3F535	HVC-2	.005	.015	.05	60	9.00	7.65	7.20	6.00
3F536	HVC-3	.011	.040	.11	40	9.00	7.65	7.20	6.00
3F537	HVC-4	.03	.1	.3	30	9.00	7.65	7.20	6.00
3F538	HVC-5	.07	.25	.7	22	9.00	7.65	7.20	6.00
3F539	HVC-6	.2	.6	2	15	9.00	7.65	7.20	6.00
3F540	HVC-7	.5	1.5	5	10	9.60	8.16	7.68	6.40
3F541	HVC-8	1.1	4.0	11	7	9.60	8.16	7.68	6.40
3F542	HVC-9	3.0	10	30	5	9.60	8.16	7.68	6.40
3F543	HVC-10	7.0	25	70	3.5	9.90	8.42	7.92	6.60
3F544	HVC-11	20	60	200	2	10.80	9.18	8.64	7.20
3F545	HVC-12	50	150	500	1.5	12.00	10.20	9.60	8.00

TVC HERMETIC VARIDUCTORS

TVC Inductors are identical to the HVC units, but provide taps at 30% and 50% of total turns. They are ideal for oscillator circuits, impedance matching, and phase inversion where high Q and adjustable inductance are required. Dim. 1 1/8"x25/32"x1 7/32". ***Assorted. †Of one type only.**

No.	Type	Min. Hys.	Mean Hys.	Max. Hys.	DC Ma	1-24*	25-99*	100-up*	100-499†
3F163	TVC-1	.002	.006	.02	100	11.10	9.44	8.88	7.40
3F164	TVC-2	.005	.015	.05	60	11.10	9.44	8.88	7.40
3F165	TVC-3	.011	.040	.11	40	11.10	9.44	8.88	7.40
3F166	TVC-4	.03	.1	.3	30	11.10	9.44	8.88	7.40
3F167	TVC-5	.07	.25	.7	20	11.10	9.44	8.88	7.40
3F168	TVC-6	.2	.6	2	15	11.10	9.44	8.88	7.40
3F169	TVC-7	.5	1.5	5	10	11.70	9.95	9.36	7.80
3F175	TVC-8	1.1	4	11	7	11.70	9.95	9.36	7.80
3F176	TVC-9	3	10	30	5	11.70	9.95	9.36	7.80
3F177	TVC-10	7	25	70	3.5	12.90	10.97	10.32	8.60
3F178	TVC-11	20	60	200	2	14.10	11.99	11.28	9.40
3F179	TVC-12	50	150	500	1.5	15.30	13.01	12.24	10.20

UTC HIGH Q TOROID INDUCTORS

The MQ series are ideal for audio, carrier and supersonic fields. Laboratory adjusted to 1% tolerance, inductance is virtually independent of frequency, temperature and vibration. Low hum pickup. Shielded case affords high permeability. Hermetically sealed to meet MIL-T-27A. Case similar to HVC above. ***Assorted. †Of one type only.**

No.	Type	Hy	Ma.	Size	Oz.	1-24*	25-99*	100-up*	100-499†
3F519	MQA-3	20‡	150	1 9/32x1 1/16x1 23/32''	4	8.10	6.89	6.48	5.40
3F501	MQA-4	30‡	125	1 9/32x1 1/16x1 23/32''	4	8.40	7.14	6.72	5.60
3F502	MQA-6	70‡	80	1 9/32x1 1/16x1 23/32''	4	9.00	7.65	7.20	6.00
3F503	MQA-7	120‡	60	1 9/32x1 1/16x1 23/32''	4	9.30	7.91	7.44	6.20
3F504	MQA-8	.2	50	1 9/32x1 1/16x1 23/32''	4	9.60	8.16	7.68	6.40
3F505	MQA-10	.5	30	1 9/32x1 1/16x1 23/32''	4	10.20	8.67	8.16	6.80
3F506	MQA-11	.7	25	1 9/32x1 1/16x1 23/32''	4	10.50	8.93	8.40	7.00
3F507	MQA-12	1	20	1 9/32x1 1/16x1 23/32''	4	10.80	9.18	8.64	7.20
3F508	MQA-13	1.5	17	1 9/32x1 1/16x1 23/32''	4	11.10	9.44	8.88	7.40
3F509	MQA-14	2.5	13	1 9/32x1 1/16x1 23/32''	4	11.40	9.69	9.12	7.60
3F510	MQA-15	4	10	1 9/32x1 1/16x1 23/32''	4	12.00	10.20	9.60	8.00
3F511	MQA-17	10	7	1 9/32x1 1/16x1 23/32''	4	13.80	11.73	11.04	9.20
3F512	MQA-19	22	4	1 9/32x1 1/16x1 23/32''	4	18.00	15.30	14.40	12.00
3F513	MQB-4	120‡	120	2 9/16x1 3/16x2 13/16"	14	13.80	11.73	11.04	9.20
3F514	MQB-5	.5	60	2 9/16x1 3/16x2 13/16"	14	14.10	11.99	11.28	9.40
3F515	MQB-6	1	40	2 9/16x1 3/16x2 13/16"	14	14.40	12.24	11.52	9.60
3F516	MQB-7	2	30	2 9/16x1 3/16x2 13/16"	14	14.70	12.50	11.76	9.80
3F521	MQB-8	3.5	22	2 9/16x1 3/16x2 13/16"	14	15.00	12.75	12.00	10.00
3F517	MQB-10	12	11	2 9/16x1 3/16x2 13/16"	14	16.80	14.28	13.44	11.20
3F518	MQB-12	25	8	2 9/16x1 3/16x2 13/16"	14	19.20	16.32	15.36	12.80
3F522	MQE-4	30‡	65	1 1/16x1/2x1 7/32''	1.5	7.80	6.63	6.24	5.20
3F526	MQE-5	50‡	50	1 1/16x1/2x1 7/32''	1.5	8.10	6.89	6.48	5.40
3F527	MQE-7	100‡	35	1 1/16x1/2x1 7/32''	1.5	8.40	7.14	6.72	5.60
3F529	MQE-11	0.6	14	1 1/16x1/2x1 7/32''	1.5	9.00	7.65	7.20	6.00

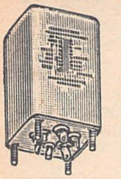
‡Indicates inductances expressed in mhy.

UTC Transformers May Be Assorted to Obtain Quantity Prices As Shown In Column with Asterisk.

Newark's field personnel and sales force are the industry's most experienced. They know electronics equipment and are aware of your problems. Whatever your needs—whatever your location—call on a Newark representative—he's at your disposal at all times.

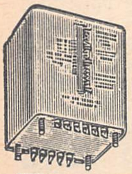
UTC FILTERS TRANSFORMERS

MILITARY STANDARD AUDIO TRANSFORMERS—Meets Mil Spec. MIL-T-27A



Freq. response ±2 db 300 cps to 10KC. 600 ohms split winding provides for 600 ohms CT and 150 ohms. Size: 1 5/8x1 5/8x2 3/8". Wt. 2/3 lb. (**) Electrostatic shielding.
(*) Assorted. (†) Of one type only.

Stk. No.	Type	Application	Pri. Ohms	Sec. Ohms	1-24*	25-99*	100-up*	100-499†
2F559	W-783	Plates to Gd	10K CT	90K split	15.90	13.52	12.72	10.60
2F560	W-784**	Line to V C	600 split	4/8/16	14.70	12.50	11.76	9.80
2F561	W-785**	Line to Grids	600 split	135K CT	14.10	11.99	11.28	9.40
2F562	W-786**	Line to Line	600 split	600 split	14.10	11.99	11.28	9.40
2F563	W-787	Plate to Line	7600/4800	600 split	12.75	10.84	10.20	8.50
2F564	W-788	Plate to V C	7600/4800	4/8/16	12.90	10.97	10.32	8.60
2F565	W-789	Plates to Line	15K CT	600 split	12.45	10.58	9.96	8.30
2F566	W-790	Plates to Line	24K CT	600 split	12.90	10.97	10.32	8.60
2F567	W-791	Plates to Line	60K CT	600 split	12.45	10.58	9.96	8.30



TYPE N

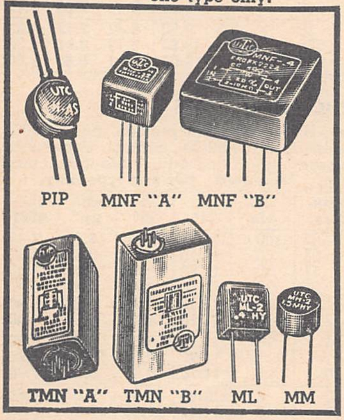
Primaries are 105/115/125V. 54/66 cyc. Secondary ma ratings are DC. uhoke input; derate ma 40% for condenser input.
(*) Assorted. (†) Of one type only.

MILITARY STANDARD FILAMENT TRANSFORMERS—Meet Mil Spec. MIL-T-27A

Stk. No.	Type	Secondary Ratings	Size	1-24*	25-99*	100-up*	100-499†
2F568	N-583A	2.5V- 3A 1000 WV	1 15/16x1 13/16x2 7/16"	10.20	8.67	8.16	6.80
2F569	N-584A	2.5V-10A 1000 WV	2 3/4x2 3/8x2 13/16"	14.10	11.99	11.28	9.40
2F570	N-585A	5V- 3A 1000 WV	2 5/16x2 1/16x2 1/2"	11.10	9.44	8.88	7.40
2F571	N-586A	5V-10A 1000 WV	3 1/16x2 5/8x3 3/16"	15.30	13.30	12.24	10.20
2F572	N-587A	6.3V- 2A 1000 WV	2 5/16x2 1/16x2 1/2"	11.10	9.44	8.88	7.40
2F573	N-588A	6.3V- 5A 1000 WV	2 3/4x2 3/8x2 13/16"	12.90	10.96	10.32	8.60
2F574	N-589A	6.3V-10A 1000 WV	3 9/16x3 1/16x3 7/8"	17.70	15.04	14.16	11.80
2F575	N-590A	6.3V-20A 1000 WV	3 15/16x3 3/8x4 5/16"	22.50	19.12	18.00	15.00
2F576	N-591A	2.5V-10A 6300 WV	3 9/16x3 1/16x3 7/8"	18.00	15.30	14.40	12.00
2F577	N-592A	5V-10A 6300 WV	3 15/16x3 3/8x4 5/16"	21.00	17.85	16.80	14.00

MILITARY STANDARD MULTIPLE SECONDARY TRANSFORMERS—Meet Mil Spec. MIL-T-27A

2F578	N-593A	200-100-0-100-200, 70 ma 6.3/5V-2A 6.3V-3A	3 1/16x2 5/8x4 1/4"	20.70	17.59	16.56	13.80
2F579	N-594A	325-0-325, 70 ma 6.3/5V-2A 6.3V-4A	3 9/16x3 1/16x3 7/8"	22.35	19.00	17.88	14.90
2F580	N-595A	325-0-325, 150 ma 5V-3A 6.3V-5A	3 15/16x3 3/8x4 5/16"	25.35	21.55	20.28	16.90
2F581	N-596A	400-0-400, 175 ma 5V-3A 6.3V-8A	4 5/16x3 11/16x4 1/2"	27.30	23.20	21.84	18.20
2F582	N-597A	450-0-450, 250 ma 5V-3A 6.3V-8A	4 11/16x4x4 15/16"	33.90	28.81	27.12	22.60
2F583	N-598A	350-0-350, 250 ma	3 15/16x3 3/8x4 5/16"	19.80	16.83	15.84	13.20
2F584	N-599A	550-0-550, 250 ma	4 5/16x3 11/16x4 1/2"	26.85	22.82	21.48	17.90
2F585	N-600A	800-0-800, 250 ma	5 1/16x4 5/16x5 1/2"	37.50	31.87	30.00	25.00



TYPE PIP

Subminiature, hermetically sealed metal cased pulse transformers. Have 4:4:1 ratio and are checked in transistor test circuit to give the required pulse width. Size: 5/16" dia, 3/16" high. Wt.: 1/20 oz.
(*) Assorted. (†) Of one type only.

PIP TRANSISTOR PULSE TRANSFORMERS—Meet Mil Spec. MIL-T-27A

Stk. No.	Type	Width µ sec.	Rise time	Imp.	V out.	1-24*	25-99*	100-up*	100-499†
2F550	PIP-1	.05	.02	50	9	6.00	5.10	4.80	4.00
2F551	PIP-2	.1	.025	50	8				
2F552	PIP-3	.2	.03	100	7				
2F553	PIP-4	.5	.05	100	7				
2F554	PIP-5	1.0	.08	100	6.8				
2F555	PIP-6	2.0	.10	100	6.6				
2F556	PIP-7	3.0	.20	100	6.8				
2F557	PIP-8	5.0	.30	200	7.9				
2F558	PIP-9	10.0	.35	200	6.5				

ULTRAMINIATURE TELEMETERING BAND PASS FILTERS

Meet Mil Spec MIL-T-27A and MIL-F-18327A

Hermetically sealed for use with transistors and printed circuits imp. 10K. Band width: MNF 7½%, MWF 15%. Size: (A) 1 3/16x1 3/16x½". (B) 23/32x23/32x½". *** Assorted † of one type only.**

Stk. No.	Type	KC	Size	1-24*	25-99*	100-up*	100-499†
2F586	MNF- .4	.4	A	39.00	33.15	31.20	26.00
2F587	MNF- .56	.56	A				
2F588	MNF- .73	.73	A				
2F589	MNF- .96	.96	A				
2F590	MNF- 1.3	1.3	A				
2F591	MNF- 1.7	1.7	A				
2F592	MNF- 2.3	2.3	A				
2F593	MNF- 3.0	3.0	A				
2F594	MNF- 3.9	3.9	A				
2F595	MNF- 5.4	5.4	A				
2F596	MNF- 7.35	7.35	B				
2F597	MNF-10.5	10.5	B	42.00	35.70	33.60	28.00
2F598	MNF-14.5	14.5	B				
2F599	MNF-22	22	B				
2F600	MNF-30	30	B				
2F602	MNF-40	40	B				
2F603	MNF-52.5	52.5	B				
2F604	MNF-70	70	B				
2F605	MWF-22	22	B				
2F606	MWF-30	30	B				
2F607	MWF-40	40	B				
2F608	MWF-52.5	52.5	B				
2F609	MWF-70	70	B				

TELEMETERING BAND PASS FILTERS

Meet Mil Spec. MIL-T-27A and MIL-F-18327A

Herm. sealed. Imp.: 100K. Band width: TMN ±7½%. TMW ±15%. Matches USC sock. MH-4MLS; Stk. No. 44F010. Size (A) 1 1/16x1 9/32x2". (B) 23/32x23/32x1 3/8". *** Assorted † of one type only.**

Stk. No.	Type	KC	Size	1-24*	25-99*	100-up*	100-499†
2F610	TMN- .4	.4	A	39.00	33.15	31.20	26.00
2F611	TMN- .56	.56	A				
2F612	TMN- .73	.73	A				
2F613	TMN- .96	.96	A				
2F614	TMN- 1.3	1.3	A				
2F615	TMN- 1.7	1.7	A				
2F616	TMN- 2.3	2.3	B				
2F617	TMN- 3.0	3.0	B				
2F618	TMN- 3.9	3.9	B				
2F619	TMN- 5.4	5.4	B				
2F620	TMN- 7.35	7.35	B				
2F621	TMN-10.5	10.5	B	42.00	35.70	33.60	28.00
2F622	TMN-14.5	14.5	B				
2F623	TMN-22	22	B				
2F624	TMN-30	30	B				
2F625	TMN-40	40	B				
2F626	TMN-52.5	52.5	B				
2F627	TMN-70	70	B				
2F628	TMW-22	22	B				
2F629	TMW-30	30	B				
2F630	TMW-40	40	B				
2F631	TMW-52.5	52.5	B				
2F632	TMW-70	70	B				

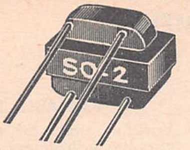
MINIDUCTORS

Hi Q in min. form. Ideal for transistor use and printed circuits. High temp. stability (—55°C to 100°C). ML-1 to 4 units for low med. freq. —1 KC. ML-5 thru 10 —400 cps. MM and MH for med. & hi freq. (10-50 KC). ML case 7/16x31/64x9/16". Wt. 1/5 oz. MM and MH cases 7/16" D.x¼"H. Wt. 7/100 oz.
(*) assorted (†) of one type only.

Stock No.	Type	IND ODC	DC MA	1-24*	25-99*	100-up*	100-499†
3F183	ML-1	.25 Hy	9	8.40	7.14	6.72	5.60
3F184	ML-2	.4 Hy	7				
3F185	ML-3	.7 Hy	5				
3F186	ML-4	1.4 Hy	3				
3F187	ML-5	2.5 Hy	1				
3F188	ML-6	4.0 Hy	.7				
3F189	ML-7	6.0 Hy	.6				
3F194	ML-8	10 Hy	.5				
3F195	ML-9	25 Hy	.3	8.70	7.40	6.96	5.80
3F196	ML-10	60 Hy	.2	9.90	8.42	7.92	6.60
3F197	MM-1	3 Mhy	50	7.50	6.38	6.00	5.00
3F198	MM-2	5 Mhy	40	7.50	6.38	6.00	5.00
3F199	MM-3	8 Mhy	30	7.80	6.63	6.24	5.20

Stock No.	Type	IND ODC	DC MA	1-24*	25-99*	100-up*	100-499†
3F247	MM-4	12.5 Mhy	25	7.80	6.63	6.24	5.20
3F248	MM-5	20 Mhy	20	8.10	6.89	6.48	5.40
3F249	MM-6	30 Mhy	16	8.10	6.89	6.48	5.40
3F306	MM-7	60 Mhy	11	8.40	7.14	6.72	5.60
3F309	MM-8	120 Mhy	8	8.40	7.14	6.72	5.60
3F029	MH-1	.6 Mhy	90	8.10	6.89	6.48	5.40
3F038	MH-2	1.5 Mhy	57	8.10	6.89	6.48	5.40
3F039	MH-3	2.5 Mhy	44	8.40	7.14	6.72	5.60
3F147	MH-4	6 Mhy	28	8.40	7.14	6.72	5.60
3F148	MH-5	10 Mhy	22	8.70	7.40	6.96	5.80
3F149	MH-6	15 Mhy	18	8.70	7.40	6.96	5.80
3F159	MH-7	25 Mhy	14	9.00	7.65	7.20	6.00
3F312	MH-8	40 Mhy	11	9.00	7.65	7.20	6.00

"SUB-OUNCERS"



Tiny transformers for use in hearing aids, pocket radios, etc. Measure only 19⁄32x43⁄64x7⁄8"; weight .03 lb. each. Frequency response, ±3 db. 200-5,000 cps.
**Indicates split winding.

***Assorted. †Of one type only.**

Stk. No.	Type	Application	Pri. Imp.	Sec. Imp.	1-24*	25-99*	100-up*	100-499†
3F390	SO-1	Input	200, 50	250,000, 62,500	3.60	3.06	2.88	2.40
3F391	SO-2	Inter-stage 3:1	10,000	90,000	3.30	2.81	2.64	2.20
3F392	SO-3	Plate to line	10,000, 25,000	200, 500	3.30	2.81	2.64	2.20
3F393	SO-4	Output	30,000	50	3.30	2.81	2.64	2.20
3F394	SO-5	Reactor 50 hy 1 ma DC	2,675 ohms DC res.		3.00	2.55	2.40	2.00
3F395	SO-6	Output	100,000	60	3.90	3.32	3.12	2.60
3F396	SO-7	transis. Int.	20,000, 30,000	800,1200	3.00	2.55	2.40	2.00
3F397	SO-8	transis. to PP	10,000	2,000CT	3.60	3.06	2.88	2.40
3F398	SO-9	PP transis. to VC	500CT	3.2	3.60	3.06	2.88	2.40
3F399	SO-10	transis. to VC	2,000, 4,000CT	8/16	3.60	3.06	2.88	2.40
3F595	SO-11	transis. Inters	400 CT 500 CT	400** 500**	4.20	3.57	3.36	2.80
3F596	SO-12	transis. Inters	400 CT 500 CT	120** 150**	4.20	3.57	3.36	2.80
3F597	SO-13	transis. Inters	400 CT 500 CT	40** 50**	4.20	3.57	3.36	2.80
3F598	SO-14	transis. Inters	80 CT 100 CT	32** 40**	4.20	3.57	3.36	2.80
3F532	SO-CH	Mtg. Channel for any SO			.30	.26	.24	.20

SUB-SUBOUNCER UNITS

Size: 7⁄16x3⁄4x43⁄64". Weight .02 lb. Impedance ratios are constant; these units can be used for other impedances if in same ratios. Units may be used reversed.

***Assorted. †Of one type only.**

Stock No.	Type	Application	Pri. Imp.	Sec. Imp.	1-24*	25-99*	100-up*	100-499†
3F375	SSO-1	Input	200 50	250,000 62,500	4.50	3.83	3.60	3.00
3F376	SSO-2	Inter. 3:1	10,000	90,000	4.80	4.08	3.84	3.20
3F377	SSO-3	Pl. to Line	10,000 25,000	200 500	4.20	3.57	3.36	2.80
3F378	SSO-4	Out		50	3.90	3.32	3.12	2.60
3F379	SSO-5	React. 50 hy at 1 mil dc	4400 ohms dc Res.		3.90	3.32	3.12	2.60
3F381	SSO-7	Transis. Inter.	20,000 30,000	800 1,200	3.30	2.81	2.64	2.20
3F382	SSO-8	Transis. to PP	10,000	2,000CT	3.90	3.32	3.12	2.60
3F383	SSO-9	Transis. to VC	10,000	16	3.00	2.55	2.40	2.00
3F384	SSO-10	Transis. to VC	10,000	3.2	3.00	2.55	2.40	2.00
3F385	SSO-11	Transis. Output	500-600	50-60	3.00	2.55	2.40	2.00
3F386	SSO-12	Transis. Output	K-1200	50-60	3.00	2.55	2.40	2.00
3F387	SSO-13	Xtal to transis.	200,000	1,000	4.50	3.83	3.60	3.00
3F388	SSO-14	Transis. Inter.	10,000 25,000	200CT 500CT	4.20	3.57	3.36	2.80
3F389	SSO-15	Transis. Inter.	20,000 30,000	800CT 1,200CT	4.20	3.57	3.36	2.80
3F599	SSO-16	Output	1.2K 1.5K	3.2/4	3.00	2.55	2.40	2.00
3F326	SSO-17	Out. or driver	10K 12.5K	500CT 600CT	3.30	2.81	2.64	2.20
3F328	SSO-19	Match	500CT	600CT	3.30	2.81	2.64	2.20
3F329	SSO-20	Output	1.5K CT	600CT	3.30	2.81	2.64	2.20
3F332	SSO-21	Xtal/chopper	200K CT	1,000CT	4.80	4.08	3.84	3.20
3F333	SSO-22	Inter.	12K CT 10K CT	1,500CT 1,800CT	3.90	3.32	3.12	2.60
3F334	SSO-23	Reactor	8 Hys. @ 2 ma		3.00	2.55	2.40	2.00
3F335	SSO-24	Reactor	3.5 Hys. @ 2 ma		3.00	2.55	2.40	2.00
3F336	SSO-25	Transis. Inter.	10K CT 12K CT	10K CT 12K CT	5.10	4.34	4.08	3.40
3F337	SSO-26	Transis. Inter.	40K CT 50K CT	400 SPT 500 SPT	5.10	4.34	4.08	3.40
3F533	SSO-CH	Mtg. Channel for any SSO			.30	.26	.24	.20

"OUNCER" AUDIOS

Famous one ounce audio transformers represent the acme in compact quality transformers. Ouncers are ideal for portable broadcast, hearing aid, aircraft, concealed service and printed circuit applications where quality, weight and space is an important factor. High Fidelity from 30-20,000 cps. Maximum output level +8 db at 6.3 mw. Application: Input and Mixing, Interstage and Output Transformers. Fully impregnated and sealed in a drawn aluminum housing. Size: 7⁄8" dia. x 13⁄16". Wt., 1 oz. **(*) Assorted. (†) Of one type only.**

Stk. No.	Type	Primary	Secondary	1-24*	25-99*	100-up*	100-499†
3F360	0-1	50, 200-250, 500-600	50,000	7.80	6.63	6.24	5.20
3F361	0-2	50, 200-250, 500-600	50,000 PP	7.80	6.63	6.24	5.20
3F362	0-3	7.5-30	50,000	7.50	6.38	6.00	5.00
3F363	0-4	15,000	60,000	6.60	5.61	5.28	4.40
3F365	0-6	15,000	95,000 PP	7.50	6.38	6.00	5.00
3F366	0-7	15,000-DC in Pri.	95,000 PP	7.50	6.38	6.00	5.00
3F367	0-8	15,000	50, 200-250, 500-600	7.80	6.63	6.24	5.20
3F368	0.9	15,000-DC in Pri.	50, 200-250, 500-600	7.80	6.63	6.24	5.20
3F369	0-10	30,000 plate to plate	50, 200-250, 500-600	8.40	7.14	6.72	5.60
3F370	0-12	50, 200-250	50, 200-250, 500-600	7.80	6.63	6.24	5.20
3F372	0-14	200	½ megohm	7.50	6.38	6.00	5.00
3F373	0-15	15,000	1 megohm	7.50	6.38	6.00	5.00
3F374	0-16	250CT	50,000	10.20	8.67	8.16	6.80
3F322	0-19	10,000/2,500 (split)	4,000/1,000 (split)	7.80	6.63	6.24	5.20
3F157	0-18	10K/2.5K (split)	2000/500 (split)	7.80	6.63	6.24	5.20
3F158	0-21	2000CT/4000CT	8/16	5.40	4.59	4.32	3.60
3F136	0-30	500/125 split	500/125 split	8.10	6.89	6.48	5.40
3F138	0-32	500/125 split	50/12.5 split	8.10	6.89	6.48	5.40
3F325	0-17	Mumetal shield, slip fit over ouncer		1.50	1.28	1.20	1.00

DO-T TRANSISTOR TRANSFORMERS

Pace-setting transistor transformers. Greater power rating, ±2 db 200 cps —20 kc., low distortion, high efficiency. Rugged; completely cased; anchored leads stand 10-lb. pull test. Very small but give full performance. For transistor use only. L., 13⁄32"; Dia., 5⁄16". Wt., 1/10 oz.

(*) Assorted. (†) Of one type only.

Stock No.	Mfr's. Type	Application	Primary Impedance	Secondary Impedance	1-24*	25-99*	100-up*	100-499†
3F550	DO-T1	Inter.	30,000/20,000	1200/800	6.00	5.10	4.80	4.00
3F551	DO-T2	Out.	600/500	60/50	5.40	4.59	4.32	3.60
3F552	DO-T3	Out.	1200/1000	60/50				
3F553	DO-T4	Out.	600	3.2				
3F554	DO-T5	Out.	1200	3.2				
3F555	DO-T6	Out.	10,000	3.2	6.00	5.10	4.80	4.00
3F556	DO-T7	Input	200,000	1000	6.60	5.61	5.28	4.40
3F557	DO-T8	Reactor 3.5 hys at 2 ma, 560 ohms			4.80	4.08	3.84	3.20
3F660	DO-T9	Out.	10,000/12,000	500/600CT	6.60	5.61	5.28	4.40
3F661	DO-T10	Driver	10,000/12,500	1200/1.5KCT				
3F662	DO-T11	Driver	10,000/12,500	2K/2500CT				
3F663	DO-T12	Out.	150/200CT	12/16	5.70	4.85	4.56	3.80
3F664	DO-T13	Out.	300/400CT	12/16	5.70	4.85	4.56	3.80
3F665	DO-T14	Out.	600/800CT	12/16	6.00	5.10	4.80	4.00
3F668	DO-T17	Out.	1500/2000CT	12/16	6.00	5.10	4.80	4.00
3F669	DO-T18	Out.	7500/10,000CT	12/16	6.30	5.36	5.04	4.20
3F670	DO-T19	Out.	300CT	600	6.00	5.10	4.80	4.00
3F671	DO-T20	Out.	500CT	600				
3F672	DO-T21	Out.	900CT	600				
3F673	DO-T22	Out.	1500CT	600				
3F674	DO-T23	Inter.	20K/30KCT	800/1200CT	6.90	5.87	5.52	4.60
3F675	DO-T24	Input	200,000CT	1000CT	7.50	6.38	6.00	5.00
3F676	DO-T25	Inter.	10K/12KCT	1.5K/1800CT	7.20	6.12	5.76	4.80
3F658	DO-T27	Reactor	1.25 hy. at 2 ma DC		4.80	4.08	3.84	3.20
3F254	DO-T28	Reactor	.3 Hy @ 4 Ma. DC.		4.80	4.08	3.84	3.20
3F218	DO-T29	Out.	120/150CT	3.2/4	5.70	4.85	4.56	3.80
3F219	DO-T30	Out.	320/400CT	3.2/4	5.70	4.85	4.56	3.80
3F225	DO-T31	Out.	640/800CT	3.2/4	6.00	5.10	4.80	4.00
3F226	DO-T32	Out.	800/1000CT	3.2/4	6.00	5.10	4.80	4.00
3F227	DO-T33	Out.	1060/1330CT	3.2/4	6.00	5.10	4.80	4.00
3F228	DO-T34	Out.	1600/2000CT	3.2/4	6.00	5.10	4.80	4.00
3F229	DO-T35	Out.	8000/10,000CT	3.2/4	6.30	5.36	5.04	4.20
3F255	DO-T36	Isol	10K/12KCT	10K/12KCT	7.50	6.38	6.00	5.00
3F236	DO-T37	Isol	2000/2500CT	8K/10K Split	7.80	6.63	6.24	5.20
3F237	DO-T38	Inter.	10K/12KCT	2K/2.4K Split	7.80	6.63	6.24	5.20
3F238	DO-T39	Inter.	20K/30KCT	1K/1.5K Split	7.80	6.63	6.24	5.20
3F239	DO-T40	Inter.	40K/50KCT	400/500 Split	8.40	7.14	6.72	5.60
3F251	DO-T42	Inter.	400/500CT	120/150 Split	7.50	6.38	6.00	5.00
3F252	DO-T43	Inter.	400/500CT	40/50 Split	7.50	6.38	6.00	5.00
3F253	DO-T44	Inter.	80/100CT	32/40 Split	7.50	6.38	6.00	5.00
3F659	DO-TSH	Hipermalloy shield for DO-T's			.90	.77	.72	.60

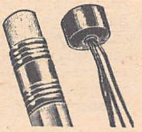
**NEWARK CAN SUPPLY
ALL UTC TRANSFORMERS**

TRANSFORMER AND VOLTAGE STABILIZERS

UTC TRANSFORMERS

DI-T TRANSISTOR TRANSFORMERS

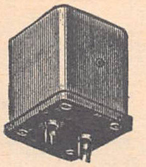
As above, but the all-new DI-T's are even smaller than the Deci-Ouncer DO-T's. Power ratings and other characteristics of the DI-T's are identical to those of the DO-T's except that the frequency response is approximately ±2 db 280 cps—20 kc. Hermetically sealed to meet MIL-T-27A. Diameter 5⁄16″, length ¼″. Weight, 1/20 ounce.



*Assorted. †Of one type only.

Stock No.	Type No.	Application	Primary Impedance	Secondary Impedance	1-24*	25-99*	100-up*	100-499†
3F422	DI-T1	Interstage	20K/30K	800/1200	5.88	5.10	4.80	4.00
3F125	DI-T2	Output	600/500	60/50	5.29	4.59	4.32	3.60
3F126	DI-T3	Output	1200/1000	60/50	5.29	4.59	4.32	3.60
3F127	DI-T8	Reactor	2.5Hy @ 2 ma	630	4.70	4.08	3.84	3.20
3F128	DI-T9	Output	10K/12K	500/600CT	6.47	5.61	5.28	4.40
3F129	DI-T10	Driver	10K/12.5K	1.2K/1.5KCT	6.47	5.61	5.28	4.40
3F130	DI-T11	Output	10K/12.5K	2K/2500CT	6.47	5.61	5.28	4.40
3F131	DI-T19	Output	300CT	600	5.88	5.10	4.80	4.00
3F132	DI-T20	Output	500CT	600	5.88	5.10	4.80	4.00
3F474	DI-T21	Output	900CT	600	5.88	5.10	4.80	4.00
3F133	DI-T22	Driver	1500CT	600	5.88	5.10	4.80	4.00
3F134	DI-T23	Interstage	20K/80KCT	800/1200CT	6.76	5.87	5.52	4.60
3F495	DI-T25	Interstage	10K/12KCT	1.5K/1.8KCT	7.06	6.12	5.76	4.80
3F496	DI-T26	Reactor	4.5Hy @ 2 ma		5.59	4.85	4.56	3.80
3F497	DI-T27	Reactor	.9Hy @ 2ma		4.70	4.08	3.84	3.20
3F498	DI-T28	Reactor	.1Hy @ 4 ma		4.70	4.08	3.84	3.20
3F499	DI-T36	Isol or Int	10K/12KCT	10K/12KCT	7.35	6.38	6.00	5.00
3F531	DI-TSH	Hipermalloy	Shield & cover for DI-T's		.88	.77	.72	.60

VARIABLE INDUCTORS

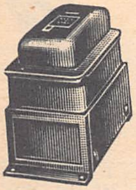


Variable units for use in tuned audio circuits. Adjustment of set screw on side of case permits change in inductance of +85% to —45% of mean value shown. In die-cast case. Size: 1¹¹⁄₃₂x1¼x1⁷⁄₁₆″. Weight, 5½ oz.

*Assorted. †Of one type only.

No.	Type	DC MA	Hys.	1-24*	25-99*	100-up*	100-499†
3F400	VIC-1	75	.0085	6.60	5.61	5.28	4.40
3F401	VIC-2	60	.013				
3F403	VIC-4	40	.034				
3F404	VIC-5	35	.053				
3F405	VIC-6	30	.084				
3F406	VIC-7	25	.13				
3F407	VIC-8	21	.21	6.90	5.87	5.52	4.60
3F408	VIC-9	18	.34				
3F409	VIC-10	15	.54				
3F410	VIC-11	12	.85				
3F411	VIC-12	10	1.3	7.20	6.12	5.76	4.80
3F412	VIC-13	8	2.2				
3F413	VIC-14	7	3.4				
3F414	VIC-15	6	5.4	7.50	6.38	6.00	5.00
3F415	VIC-16	5	8.5				
3F416	VIC-17	4	13				
3F418	VIC-19	3	33	7.80	6.63	6.24	5.20
3F419	VIC-20	2	52	8.40	7.14	6.72	5.60
3F420	VIC-21	1.5	83	9.00	7.65	7.20	6.00

RAYTHEON VOLTAGE STABILIZERS



A

Stock No.	Mfrs. No.	Style	Overall Case Size L x W x H	Mounting L x W	Output Watts	Input Volts	Output Volts	Shpg. Wt.	1-4	5-9	10-24
5F590	RVA-15	A	5⅜″x2½″x4⁵⁄₁₆″	4⅞″x1½″	15	95-130	117	3	19.00	13.50	12.75
5F611	VR-6101	B	7½″x3⅜″x4⅛″	6⅞″x2¼″	30	95-130	6/7.5	5	18.00	16.20	15.30
5F591	RVA-30	A	5⅜″x2½″x4⁵⁄₁₆″	4⅞″x1½″	30	95-130	117	5	23.70	18.00	17.00
5F592	RVA-60	A	5⅞″x3¼″x5¼″	5⅜″x2¼″	60	95-130	117	9	29.70	22.50	21.25
5F593	RVA-125	A	9½″x4½″x6⁹⁄₁₆″	8¾″x3¼″	125	95-130	117	14	39.20	29.70	28.05
5F595	RVA-500	A	9½″x4½″x10³⁄₁₆″	8¾″x3¼″	500	95-130	117	39	91.50	69.30	65.45

VOLTAGE REGULATOR ACCESSORIES

Type RCP-500. Cord plug and socket assembly. For types rated 76-500 VA.
5F599. 1-4..........2.00 5-9..........1.80 10-24..........1.70

MICROTRAN TRANSFORMERS

FB

AG

H

M-M

MINIATURIZED TRANSISTOR AND AUDIO TRANSFORMERS

Suitable for use in high fidelity amplifiers, broadcast equipment, and portable applications. Thorough baking and resin impregnation assures reliable life. Style FB. 1³⁄₆₄Wx1³⁄₁₆Dx²⁷⁄₃₂″H. Style AG. 1Wx1Dx1⅜″H. MC 1⅛″. Style H. ¹⁵⁄₁₆Dx1⁷⁄₁₆″H. MC 1⅛″. Style M. 1⁵⁄₃₂Wx⅞Dx⅞″H. MC 1³⁄₆₄″. Approx. Shpg. wt., 1¼ oz.

Stk. No.	Type	Applications	Freq. Resp.	Primary Imp.	Secondary Imp.	1-9	10-49	50-99	100-up
7F600	M 1-FB	Mike or line to 1 grid	20-20,000	50/250/600 C.T.	50,000	3.75	3.37	3.13	2.50
7F601	M 2-FB	Mike or line to 2 grids	20-20,000	50/250/600 C.T.	50,000 C.T.	3.90	3.51	3.25	2.60
7F602	M 3-FB	Dynamic mike to 1 grid	20-20,000	7.5/30	50,000	3.60	3.24	3.00	2.40
7F604	M 5-FB	Single plate to 1 grid	200-20,000	15,000	60,000	3.45	3.10	2.88	2.30
7F605	M 6-FB	Single plate to 2 grids	20-15,000	15,000	95,000 C.T.	3.60	3.24	3.00	2.40
7F606	M 7-FB	Single plate to 2 grids	200-20,000	15,000	95,000 C.T.	3.75	3.37	3.13	2.50
7F607	M 8-FB	Single plate to line	20-20,000	15,000	50/250/600 C.T.	3.75	3.37	3.13	2.50
7F608	M 9-FB	Single plate to line	150-20,000	15,000	50/250/600 C.T.	3.75	3.37	3.13	2.50
7F609	M10-FB	Push pull plates to line	30-50,000	30,000 P.P.	50/250/600 C.T.	3.90	3.51	3.25	2.60
7F612	M13-FB	Reactor	600 D.C.R.	300 hy. O d. c.	50 hy. @ 3 ma	3.30	2.97	2.75	2.20
7F614	M15-FB	10: 1 plate to grid	100- 2,500	10,000	1 Megohm	3.60	3.24	3.00	2.40
7F788	M12-M	Mixing and matching	20-20,000	50/250 C.T.	50/250/600 C.T.	10.50	9.45	8.75	7.00
7F657	MT 1-FB	Line to base	200-15,000	600	600	3.60	3.24	3.00	2.40
7F658	MT 2-FB	Coll. to P.P. base 2N57	200-20,000	100	10 C.T./40 C.T.	4.20	3.78	3.50	2.80
7F659	MT 3-FB	Coll. to base or wire	300-15,000	50,000	600	3.90	3.51	3.25	2.60
7F663	MT 8-FB	P.P. coll to P.P. base	300-15,000	50,000 C.T.	1,200 C.T.	4.20	3.78	3.50	2.80
7F664	MT 9-FB	Line to P.P. base	200-15,000	600 C.T.	1,200 C.T.	4.20	3.78	3.50	2.80
7F666	MT11-FB	P.P. coll. to P.P. base	200-15,000	4,000 C.T.	600 C.T.	4.20	3.78	3.50	2.80
7F667	MT12-FB	Output coll. to speaker	200-15,000	2,000	3.4	3.90	3.51	3.25	2.60
7F668	MT13-FB	P.P. coll. to speaker	200-15,000	4,000 C.T.	3.4	4.05	3.64	3.38	2.70
7F669	MT15-FB	P.P. Servo output 2N57	300-20,000	500 C.T.	210	3.90	3.51	3.25	2.60
7F670	MT18-FB	P.P. coll. to P.P. base	200-15,000	25,000 C.T.	1,200 C.T.	4.20	3.78	3.50	2.80
7F672	MT21-FB	P.P. coll. to P.P. base	200-15,000	4,000 C.T.	600/150 split	4.35	3.91	3.63	2.90
7F673	MT22-FB	Line to P.P. base	200-15,000	600/150 split	1,200 C.T.	4.35	3.91	3.63	2.90
7F674	MT23-FB	P.P. coll. to Servo	200-15,000	250 C.T.	1000	3.90	3.51	3.25	2.60
7F839	MT26-FB	Line to P.P. base	200-15,000	600 C.T.	600 C.T.	4.05	3.65	3.38	2.70
7F840	MT29-FB	P.P. coll. to Servo	200-15,000	1600 C.T.	450	3.90	3.51	3.25	2.60
7F841	MT30-FB	P.P. coll. to Servo	200-15,000	250 C.T.	500	3.90	3.51	3.25	2.60
7F799	MT 8-AG	P.P. col. to P.P. base	300-15.000	50.000 C.T.	1,200 C.T.	9.60	8.64	8.00	6.40
7F800	MT 9-AG	Line to P.P. base	200-15,000	600 C.T.	1,200 C.T.	9.60	8.64	8.00	6.40
7F842	MT 2-M	Coll. to P.P. base 2N57	200-20,000	100	10 C.T./40 C.T.	9.90	8.91	8.25	6.60
7F801	MT 9-M	Line to P.P. base	200-15,000	600 C.T.	1,200 C.T.	9.90	8.91	8.25	6.60
7F843	MT29-H	P.P. coll. to Servo	200-15,000	1600 C.T.	450	8.40	7.56	7.00	5.60
7F844	MT30-H	P.P. coll. to Servo	200-15,000	250 C.T.	500	8.40	7.56	7.00	5.60

TRANSFORMERS MICROTRAN®

MIL-T-27A TRANSISTOR-POWER-TRANSFORMERS

MIL-T-27A Case

For silicon rect. circuitry. Pri 105/115/125 V. except (*) 115v. only. 50-60 cps. Output v. for resistive or inductive loads. Wt., 4 lbs.

Stk. No.	Type	Freq. Cycles	Secondary A.C. Volts	Secondary RMS Amps	C.T.F.W. D.C.V.	F.W. Bridge D.C.V.	L	W	H	1-9	10-49	50-99	100-up
7F709	M8019	380-1600	18.5 C.T.	3	7	14	2 5/16	2 1/16	3 1/8	**15.90**	**14.31**	**13.25**	**10.60**
7F710	M8020	380-1600	35 C.T.	3	14.5	29	2 3/4	2 3/8	3 13/16	**18.00**	**16.20**	**15.00**	**12.00**
7F711	M8021	380-1600	70·C.T.	1	30	60	2 5/16	2 1/16	3 1/8	**16.05**	**14.44**	**13.38**	**10.70**
7F316	M8039	380-1600	12.6	.8	10.5	21	1 5/8	1 5/8	2 3/8	**13.20**	**11.88**	**11.00**	**8.80**
			12.6 C.T.	.8									
7F302	M8041*	380-1600	50 C.T.	.25	21.5	43	1 5/16	1 5/16	1 3/4	**9.75**	**8.77**	**8.13**	**6.50**
7F303	M8064*	380-1600	6.3 C.T.	.6	1.9	3.8	1 5/16	1 5/16	1 3/4	**11.10**	**9.99**	**9.25**	**7.40**
7F304	M8065	380-1600	26 C.T.	1.5	10.7	21.5	1 15/16	1 13/16	2 3/4	**15.60**	**14.04**	**13.00**	**10.40**
7F305	M8066	380-1600	26 C.T.	3	10.7	21.5	2 5/16	2 1/16	3 1/8	**16.05**	**14.44**	**13.38**	**10.70**
7F306	M8067	380-1600	30 C.T.	.5	12.5	25	2 5/16	2 1/16	2 1/2	**15.00**	**13.50**	**12.50**	**10.00**
7F307	M8068	380-1600	40 C.T.	.2	17	34	1 5/8	1 5/8	2 3/8	**13.20**	**11.88**	**11.00**	**8.80**
7F308	M8070*	380-1600	65 C.T.	.170	28.4	56.8	1 5/16	1 5/16	1 3/4	**11.25**	**10.12**	**9.38**	**7.50**
7F309	M8071	380-1600	80 C.T.	.90	35.2	70.4	2 5/16	2 1/16	3 1/8	**16.20**	**14.58**	**13.50**	**10.80**
7F310	M8063*	380-1600	2.85	.045	1.5	3	15/16 Dia.	1 1/8 Mtg. Ctrs.		**10.50**	**9.45**	**8.75**	**7.00**
7F311	M8069*	380-1600	60 C.T.	.003	26	52	15/16 Dia.	1 1/8 Mtg. Ctrs.		**9.75**	**8.76**	**8.13**	**6.50**
7F712	M8022	50/60	18.5 C.T.	3	7	14	3 9/16	3 1/16	3 7/8	**20.25**	**18.22**	**16.87**	**13.50**
7F713	M8023	50/60	35 C.T.	3	14.5	29	3 15/16	3 3/8	5 1/4	**26.10**	**23.49**	**21.75**	**17.40**
7F714	M8024	50/60	70 C.T.	1	30	60	3 9/16	3 1/16	4 7/8	**25.65**	**23.09**	**21.38**	**17.10**
7F312	M8045	50/60	28 C.T.	.6	11.7	23.4	2 5/16	2 1/16	3 1/8	**16.35**	**14.71**	**13.63**	**10.00**
7F313	M8055	50/60	30 C.T.	2.5	12.5	25	2 3/4	2 3/8	3 13/16	**25.65**	**23.09**	**21.38**	**17.10**
7F314	M8056	50/60	80 C.T.	.6	35	70.5	3 1/16	2 5/8	4 1/4	**16.65**	**14.98**	**13.88**	**11.10**
7F315	M8057	50/60	115 C.T.	.9	51	102	3 15/16	3 3/8	5 1/4	**25.35**	**22.81**	**21.12**	**16.90**

TRANSISTOR OUTPUT TRANSFORMERS

Hermetically sealed. Fig. A. MIL-T-27A construction. Approx. wt., 8 oz.

Stk. No.	Type	Application	Pri. Imp.	Sec. Imp.	Freq. Resp.	Watts	L	W	H	1-9	10-49	50-99	100-up
7F701	M8010	P.P. Col. to Servo	120 C.T.	1000	300-15,000	6	1 5/8	1 5/8	2 3/8	**11.55**	**10.39**	**9.63**	**7.70**
7F706	M8015	P.P. Col. to Servo	1600 C.T.	800	150-20,000	2.5	1 5/8	1 5/8	2 3/8	**12.00**	**10.80**	**10.00**	**8.00**
7F328	M8054	P.P. Output to Servo	250 C.T.	130	200-20,000	3	1 5/16	1 5/16	1 3/4	**14.56**	**13.09**	**12.13**	**9.70**

TRANSISTOR DRIVER TRANSFORMERS

Designed for transistor, servo, and audio applications. All are MIL-T-27A construction. ‡ Bi-Filar wound.

7F694	M8003‡	Collector to P.P. Base	625 C.T.	100 C.T.	200-20,000	1.5	1 5/8	1 5/8	2 3/8	**12.30**	**11.07**	**10.25**	**8.20**
7F696	M8005	Collector to P.P. Base	7,000	320 C.T.	70-15,000	.040	1 5/16	1 5/16	1 3/4	**14.85**	**13.36**	**12.38**	**9.90**

TRANSISTOR BLOCKING OSCILLATOR TYPE TRANSFORMER

For conversion of low voltage DC to high voltage. MIL-T-27A sealed. 400 Cycles approximate repetition rate. Wt. 2 lbs.

Stk. No.	Type	H.V.	Typical Input Volts DC	Typical Input Ma DC	Typical Output Volts DC	Typical Output μa DC	L	W	H	1-9	10-49	50-99	100-up
7F317	M8050	600	3	20	1000*	25	1 11/16	13/16	27/32	**5.95**	**4.99**	**4.63**	**3.70**
7F318	M8073	44	4	2-15**	425-500	50 Max.	1/2	7/16	7/16	**5.25**	**4.73**	**4.38**	**3.50**
7F319	M8074	65.5	3	45	535*	90	1 11/16	13/16	27/32	**5.10**	**4.59**	**4.25**	**3.40**

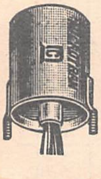
**Dependent on load and bias conditions. Frequency varies from 100 to 2800 CPS.
*Output when transformer is used in blocking oscillator circuit with single capacitor input rectifier.

D.C. TO D.C. CONVERTER TRANSFORMER

Permits conversion of low voltage DC to high voltage. Provides improved reliability, efficiency, and ruggedness. Hermetically sealed to MIL-T-27A spec. Fig. A. Approximate weight, 2 pounds.

Stk. No.	Type	For Trans.	DC Input Volts	VA Out	F.W. Volts	D	W	H	1-9	10-49	50-99	100-up
7F320	M8072	Delco 2N1307	2.7	190mw	480	1 11/16	13/16	27/32	**5.40**	**4.86**	**4.50**	**3.60**

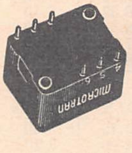
LOW LEVEL CHOPPER TRANSFORMERS



Transfers 30 to 500 cps. Transducer or thermocouple signals to instrument amplifiers. Signal level range .5 μv to .5 volts. 3 mu-metal and 2 copper shields give 90 db magnnetic shielding. 1 3/8Dx1 25/32Hx1 1/2 M.C. Wt., 5 oz.

Stk. No.	Type	Turns Ratio Full Pri. to Full Sec.	Turns Ratio 1/2 Pri. to Full Sec.	Ind. of Full Pri. 60 Cycles	Imp. of Full Pri. 60 Cycles	1-9	10-49	50-99	100-up
7F819	M8025	1:7.7	1:15.4	17.5	6,600	**13.80**	**12.42**	**11.50**	**9.20**
7F820	M8026	1:3.2	1:6.4	60 HY	22,500	**13.80**	**12.42**	**11.50**	**9.20**
7F321	M8052	1:4.53	1:9.06	90	34,000	**14.25**	**12.82**	**11.88**	**9.50**
7F322	M8053	1:1	1:0.5	140	53,000	**13.65**	**12.28**	**11.38**	**9.10**

400 CYCLE ISOLATION TRANSFORMERS



Center tap permits use in either F.W. Bridge or F.W.C.T. circuitry. Electrostatic shielding. Sealed per MIL-T-27A.

Stk. No.	Type	Volts-In	Volts-Out	RMS Amps	V.A. Rating	L	W	H	1-9	10-49	50-99	100-up
7F323	M8058	115	115 C.T.	.017	2	15/16 Dia.	1 1/8 Mtg. Ctrs.		**9.60**	**8.64**	**8.00**	**6.40**
7F324	M8059	115	115 C.T.	.35	40	1 15/16	1 13/16	2 7/16	**14.70**	**13.23**	**12.25**	**9.80**
7F325	M8060	115	115 C.T.	1.3	150	2 3/4	2 3/8	3 13/16	**18.45**	**16.60**	**15.37**	**12.30**
7F326	M8061	115	115 C.T.	2.6	300	3 9/16	3 1/16	4 7/8	**24.90**	**22.41**	**20.75**	**16.60**
7F327	M8062	115	115 C.T.	4.4	500	3 15/16	3 3/8	5 1/4	**26.85**	**24.16**	**22.38**	**17.90**

MICROTRAN TRANSISTOR TRANSFORMER SELECTOR KIT

Model 400K. 9 transformers in one kit! For servo, audio instrumentation and control circuitry! Impedance range of 150-200,000 ohms. Sizes: from 3/8: cube to 3/4x3/4x1". 4" color coded leads. Includes complete design data: Nomographs and circuitry for determining correct transformer impedances for class A and B transistor amplifiers. Power versus DBM chart, terminal connection sheet, guide to MIL-T-27A, cross reference index. With outline drawings for later selection of stock items with these same electrical ratings in many other mechanical constructions.

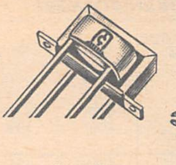
Type	Primary Impedance*	Primary DCR	Secondary Impedance*	Secondary DCR	Unbal. Pri. D.C. Ma.	Level MW.	Freq. Resp. ±2db.
MMT9-FB	600 C.T.	45	1200 C.T.	100	16	150	200-15,000
MT24-FB	2,500	230	600 C.T.	55	10	1500	200-15,000
MMT21-FB	4,000 C.T.	300	600/150 Split	30/30	5	600	200-15,000
MMT17-FB	10,000 C.T.	2400	200 C.T.	35	6	100	200-15,000
UM31-F	10,000 C.T.	850	1200 C.T.	120	2	5 (.5W @ 1Kc)	300-10,000
UM-22-F	20,000	1100	1000	100	.5	5 (.3W @ 1Kc)	300-10,000
SMT18-FB	25,000 C.T.	2000	1200 C.T.	110	3	100	200-15,000
VM2-FBP	200,000	2650	600	80	1 (Sec.)	5	200-10,000
UM28-F	10 hy (0dc)	650	8 hy (.5md)	......		......	Reactor

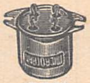
*Primary and secondary may be interchanged but impedance will be slightly different.

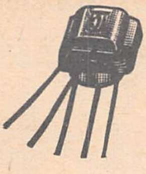
7F838. NET..**29.50**

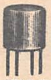
MICROTRAN® TRANSFORMERS

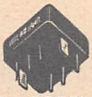
**Suffix letters of Type No. indi-
Suffix letters of Type No. in-
types for which part numbers
dicate mounting style. Case
are not shown here are avail-
able on special order.**

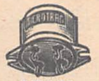

SM-FB
MM-FB

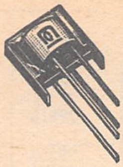

SM-H

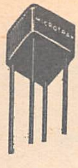

UM-F


UM-M


MM-M


MM-H


VM-FPB


VM-M

ULTRA MINIATURE TRANSISTOR TRANSFORMERS—UM SERIES—300 TO 10,000 CYCLE RESPONSE

For the extreme in miniaturization. Supplied with 4 inch #27 color coded leads suitable for dip soldering in printed circuits. Nickel alloy cores, nylon bobbins, formvar wire. Type F—Open frame—3/8x3/8x11/32 in. Type M—Molded—1/2x1/2 in. dia. Shpg. wt., 1 oz.

Stk. No.	Type	Application	Primary Imp.	Secondary Imp.	Unbal. Pri.	1-9	10-49	50-99	100-249
7F763	UM21-F	Input	100,000	1,000	0 DC Ma	6.00	5.40	5.00	4.00
7F767	UM25-F	Output	400	50	3 DC Ma	3.90	3.51	3.25	2.60
7F808	UM23-M	Driver	20,000	1,200 C.T.	.5 DC Ma	6.00	5.40	5.00	4.00
7F812	UM27-M	Output	400 C.T.	11	6 DC Ma	5.25	4.73	4.38	3.50
7F329	UM29-M	Interstage	600 C.T.	600 C.T.	7 DC Ma	5.70	5.13	4.75	3.80
7F330	UM29-F	Interstage	600 C.T.	600 C.T.	7 DC Ma	4.65	4.19	3.88	3.10
7F331	UM31-F	Interstage	10,000 C.T.	1,200 C.T.	2 DC Ma	4.80	4.32	4.00	3.20
7F332	UM35-F	Isolation	15,000 C.T.	15,000 C.T.	1 DC Ma	4.95	4.46	4.13	3.30
7F333	UM35-M	Isolation	15,000 C.T.	15,000 C.T.	1 DC Ma	6.15	5.54	5.13	4.10

SUBMINIATURE TRANSISTOR TRANSFORMERS—SMT SERIES

Designed for rigid sub-miniaturization applications and high resistance to ambients. Freq. Resp. 200-15,000cps. Type FB. Open framed with channel. 15/32x15/16x19/32 in. Shpg. wt., 1 oz. Type H. Hermetic. Gray enamel finish. High compression glass terminals. 17/16x15/32x 39/40 in. Shpg. wt., 2 oz.

Stk. No.	Type	Application	Primary Imp.	Secondary Imp.	1-9	10-49	50-99	100-249
7F771	SMT1-FB	Line to base	600	600	3.90	3.51	3.25	2.60
7F733	SMT4-FB	P.P. Coll to P.P. base	50,000 C.T.	600 C.T.	4.95	4.45	4.13	3.30
7F737	SMT9-FB	Line to P.P. base	600 C.T.	1,200 C.T.	4.20	3.78	3.50	2.80
7F740	SMT13-FB	Output P.P. Coll to Spkr.	4,000 C.T.	3.4	4.05	3.64	3.38	2.70
7F742	SMT17-FB	P.P. Coll to P.P. base	10,000 C.T.	200 C.T.	4.80	4.32	4.00	3.20
7F821	SMT19-H	Coll. to P.P. base	2,500	2,500 C.T.	6.75	6.07	5.63	4.50

MICRO MINIATURE AUDIO TRANSFORMERS AND TRANSISTOR SERIES

Suitable for rigid sub-miniaturization applications where the highest resistance to extremes of ambients must still be maintained. Freq. Resp. 200-15,000 cps.

Type MM-M. Molded. Designed for plug-in printed circuit applications. Cast Epoxy resin. 17/32x25/32x7/8 in. Shpg. wt., 1 oz.
Type MM-H. Hermetic. Gray enamel finish. High compression glass terminals. Shpg. wt., 1 oz.
Type MM-FB. Open frame with channel. 13/16x19/32x15/32 in. Shpg. wt., 1 oz.

TRANSISTOR SERIES—MMT SERIES

Stk. No.	Type	Application	Primary Imp.	Secondary Imp.	1-9	10-49	50-99	100-249
7F631	MMT1-FB	Line to base	600	600	3.90	3.51	3.25	2.60
7F633	MMT4-FB	P.P. Coll. to P.P. base	50,000 C.T.	600 C.T.	4.80	4.32	4.00	3.20
7F634	MMT5-FB	Coll. to speaker	50,000	6	4.35	3.91	3.63	2.90
7F636	MMT8-FB	P.P. Coll. to P.P. base	50,000 C.T.	1,200 C.T.	4.65	4.18	3.88	3.10
7F637	MMT9-FB	Line to P.P. base	600 C.T.	1,200 C.T.	4.20	3.78	3.50	2.80
7F639	MMT11-FB	P.P. Coll. to P.P. base or line	4,000 C.T.	600 C.T.	4.35	3.91	3.63	2.90
7F642	MMT16-FB	Coll. to P.P. base	10,000	1,500 C.T.	4.50	4.05	3.75	3.00
7F644	MMT18-FB	P.P. Coll. to P.P. base	25,000 C.T.	1,200 C.T.	4.65	4.18	3.88	3.10
7F645	MMT19-FB	Coll. to P.P. base	2,500	2,500 C.T.	4.05	3.64	3.38	2.70
7F334	MMT21-FB	P.P. Coll. to P.P. base	4,000 C.T.	600/150 split	4.65	4.19	3.88	3.10
7F335	MMT26-FB	Line to base	600 C.T.	600 C.T.	4.20	3.78	3.50	2.80
7F336	MMT29-FB	Driver/Isolation	10,000 C.T.	10,000 C.T.	4.65	4.19	3.88	3.10
7F337	MMT30-FB	P.P. Coll. to P.P. base	7,500 C.T.	1,200 C.T.	4.50	4.05	3.75	3.00
7F338	MMT31-FB	P.P. Coll. to P.P. base	2,000 C.T.	500 C.T.	4.35	3.92	3.63	2.90
7F339	MMT32-FB	Line to P.P. base	600 C.T.	1200/300 split	4.65	4.19	3.88	3.10
7F824	MMT1-M	Line to base	600	600	8.55	7.69	7.13	5.70
7F796	MMT11-M	P.P. Coll. to P.P. base or line	4,000 C.T.	600 C.T.	9.00	8.10	7.50	6.00
7F656	MMT19-M	Coll. to P.P. base	2,500	2,500 C.T.	8.70	7.83	7.25	5.00
7F340	MMT29-M	Driver/Isolation	10,000 C.T.	10,000 C.T.	9.75	8.78	8.13	6.50
7F341	MMT30-M	P.P. Coll. to P.P. base	7,500 C.T.	1,200 C.T.	9.60	8.64	8.00	6.40
7F342	MMT32-M	Line to P.P. base	600 C.T.	1200/300 split	9.75	8.78	8.13	6.50
7F646	MMT1-H	Line to base	600	600	7.35	6.61	6.13	4.90
7F648	MMT4-H	P.P. Coll. to P.P. base	50,000 C.T.	600 C.T.	8.55	7.69	7.13	5.70
7F652	MMT9-H	Line to P.P. base	600 C.T.	1,200 C.T.	7.65	6.88	6.38	5.10
7F654	MMT11-H	P.P. coll. to P.P. base or line	4,000 C.T.	600 C.T.	7.80	7.02	6.50	5.20
7F343	MMT18-H	P.P. Coll. to P.P. base	25,000 C.T.	1,200 C.T.	8.55	7.69	7.13	5.70
7F344	MMT31-H	P.P. Coll. to P.P. base	2,000 C.T.	500 C.T.	8.25	7.43	6.88	5.50

AUDIO TRANSFORMERS—MM SERIES

Stk. No.	Type	Application	Primary Imp.	Secondary Imp.	1-9	10-49	50-99	100-249
7F719	MM1-FB	Input	200/50	250,000/62,500	4.50	4.05	3.75	3.00
7F720	MM2-FB*	Interstage 3:1	10,000	90,000	4.80	4.32	4.00	3.20
7F722	MM4-FB*	Output	30,000	50	4.05	3.64	3.38	2.70
7F725	MM7-FB	Output	30,000	1,200	3.30	2.97	2.75	2.20

*Freq. Resp. 150-10,000cps.

VERI-MINIATURE TRANSISTOR TRANSFORMERS—VM SERIES

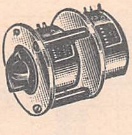
VM SERIES. 4 inch #27 color coded leads suitable for dip soldering in printed circuits. Nickel alloy cores, nylon bobbins, formvar wire. Frequency response ±2 db. 200 to 10,000 cycles. Type FPB. Plug in tab mounted channel. 17/32x17/32x5/8 in. Shpg. wt., 1 oz. Type M Molded. Designed for plug-in printed circuit applications. Cast Epoxy resin provides resistance to extremes of ambience. 1/2x9/16x9/16 in. Shpg. wt., 1 oz.

Stk. No.	Type	Application	Primary Imp.	Secondary Imp.	1-9	10-49	50-99	100-249
7F755	VM 2-FPB	Input or Interstage	200,000	600(1.0ma)	5.70	5.13	4.75	3.80
7F756	VM 4-FPB	Input or Interstage	200,000	1,200(.72ma)	5.70	5.13	4.75	3.80
7F345	VM15-FPB	Isolation	50,000 C.T.	50,000 C.T.	6.00	5.40	5.00	4.00
7F346	VM16-FPB	Driver	500 C.T. (7.5ma)	250 C.T.	4.50	4.05	3.75	3.00
7F827	VM 3-M	Interstage	25,000	600(1ma)	6.30	5.67	5.25	4.20
7F837	VM13-M	Interstage	20,000	1,000 C.T.(.75ma)	6.90	6.21	5.75	4.60
7F347	VM14-M	Interstage	600 C.T. (7ma)	600 C.T.	6.75	6.08	5.63	4.50
7F348	VM15-M	Isolation	50,000 C.T.	50,000 C.T.	8.40	7.56	7.00	5.60
7F349	VM16-M	Driver	500 C.T. (7.5ma)	250 C.T.	6.75	6.08	5.63	4.50

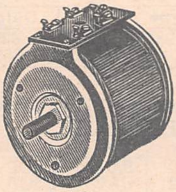
TRANSFORMERS AND MOTOR DRIVE MODULES

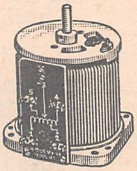
OHMITE "V.T." VARIABLE TRANSFORMERS

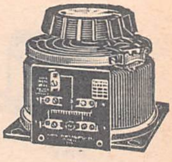
VT2


VT2-2

VT2E
In Case


VT4


VT8


VT20

A new approach to variable transformer design. Four basic physical sizes offer a wide range of electrical ratings. They have a long, maintenance free life with excellent regulation at any point within the rated load and have an output free of wave form distortion. All models will deliver their full rated current at any brush setting. All models have the overvoltage feature (steps up voltage above line voltage), except those marked "No Overvoltage" and the high current-low voltage types which are designed to meet requirements of transistorized power supplies and other high current applications. Fixed cased mounting enclosures are intended for permanent mounting on table, panel or in-conduit line. Portable cased units have a line cord, outlet socket and fuse. The frequency shown is the minimum rating for the unit. They all may be used to over 400 cps. Screw terminals and solder lugs are included on all models and VT2 types will als oaccept push-on connectors. Mounting positions: VT2 has ⅜-22 threaded bushing for single mount, and a non-removable shaft. All other uncased models can be mounted on either panel or table and have shafts which may be extended from either the brush or base side. VT20 series features a collet type shaft lock for ready repisitioning without scoring shaft. Knob, dial and mounting hardware are supplied with each transformer. On the overvoltage models the dials are calibrated on one side for overvoltage and on the reverse side for normal line connection. Wiring instructions, modes of operation are enclosed. The terminal input and output data. All units are single phase except Three-in-Tandem

SINGLE TRANSFORMERS—UNCASED

Stk. No.	Type	Input Volts	Cyc.	Max. Out Amps	Max. Out Volts	Description	Size	Wt. Lbs.	1-5	6-11	12-99
5F650	VT2	120	60	1.75	0-120/132	Basic 1.75A model	2 13/16"D.x3"L.	2.4	**8.50**	**8.50**	**7.23**
5F570	VT2N	120	60	2.0	0-120	No overvoltage	2 13/16"D.x3"L.	2.4	**9.00**	**9.00**	**7.65**
5F571	VT2LN	40	50	5	0-40	Hi-amps, Low-volts	2 13/16"D.x3"L.	2.4	**9.75**	**9.75**	**8.29**
5F651	*VT4	120	50	3.5	0-120/140	Basic 3.5A model	3 9/16"D.x4 13/16"L.	5.25	**12.50**	**10.63**	**10.63**
5F573	VT8LN	40	50	22	0-140	High-amps, low-volts	4⅞"D.x5⅝"L.	10.25	**20.50**	**17.43**	**17.43**
5F576	VT8N	120	50	10	0-120	No Overvoltage	4⅞"D.x5⅝"L.	10.25	**18.50**	**15.73**	**15.73**
5F574	VT20	120	50	20	0-120/140	Basic 20A model	7½"W.x8 1/16"D.x5⅝"H.	22	**45.00**	**38.25**	**38.25**
5F581	VT20N	120	50	25	0-120	No Overvoltage	7½"W.x8 1/16"D.x5⅝"H.	22	**45.50**	**38.68**	**38.68**

*Underwriter's Laboratories Listed

SINGLE TRANSFORMERS—CASED

Stk. No.	Type	Input Volts	Cyc.	Max. Out Amps	Max. Out Volts	Description	Size	Wt. Lbs.	1-5	6-11	12-99
5F654	VT2E	120	60	1.4	0-132	Fixed Mtg.	3⅜"W.x2½"D.x4¼"H.	2.8	**12.50**	**12.50**	**10.63**
5F659	VT2F	120	60	1.75	0-132	Portable	3⅜"W.x2½"D.x4¼"H.	3.2	**14.50**	**14.50**	**12.33**
5F578	VT4FC	120	50	3.5	0-40	3 wire type ASA cord No Overvoltage	4⅞"W.x4½"D.x6¼"H.	7.8	**21.00**	**17.85**	**17.85**
5F572	VT4LN	40	50	12.0	0-40	High-amps, Low-volts	3 9/16"D.x4 13/16"L.	5.25	**14.50**	**12.33**	**12.33**
5F577	VT4N	120	50	4.75	0-120	Hi-amps. Low-volts	3 9/16"D.x4 13/16"L.	5.25	**13.00**	**11.05**	**11.05**
5F652	*VT8	120	50	7.5	0-120/140	Basic 7.5A model	4⅞"D.x5⅝"L.	10.25	**18.00**	**15.30**	**15.30**
5F579	VT8FC	120	50	7.5	0-140	Same as VT4FC	5 17/32"W.x5¼"D.x7⅜"H.	13.8	**26.50**	**22.53**	**22.53**
5F580	VT8GC	120	50	6.0	0-120/140	Same as VT4FC	5 3/16"W.x5¼"D.x7⅜"H.	14.2	**31.00**	**26.35**	**26.35**
5F582	VT8G	120	50	6.0	0-120/140	Laboratory Portable	5 3/16"W.x5¼"D.x7⅜"H.	14.2	**28.50**	**24.23**	**24.23**
5F575	VT20B	120	50	20	0-120/140	Basic protective enclosure. Fixed mtg.	7⅝"W.x8⅛"D.x6"H.	22.5	**50.00**	**42.50**	**42.50**
5F583	VT20NB	120	50	25	0-120	No Overvoltage—Enclosed	7⅝"W.x8⅛"D.x6"H.	22.5	**50.50**	**42.93**	**42.93**

TWO IN TANDEM ASSEMBLIES

Stk. No.	Type	Input Volts	Cyc.	Max. Out Amps	Max. Out Volts	Description	Size	Wt. Lbs.	1-5	6-11	12-99
5F653	VT2-2	240	60	1.75	0-240/264	Series conn.	3"D.x5⅜"L.	5.25	**25.00**	**25.00**	**21.25**

THREE IN TANDEM ASSEMBLIES—3 PHASE

Stk. No.	Type	Input Volts	Cyc.	Max. Out Amps	Max. Out Volts	Description	Size	Wt. Lbs.	1-5	6-11	12-99
5F584	VT20-3	240	60	20	0-240/280	"Y" Connection	7½"W.x8 1/16"D.x15/16"L.	68	**155.00**	**131.75**	**131.75**
5F585	VT20N-3	240	60	25	0-240	"Y" Connection	7½"W.x8 1/16"D.x15/16"L.	68	**156.50**	**133.03**	**133.03**

60 CYCLE AC MODULAR DRIVES FOR SERIES VT4 AND VT8

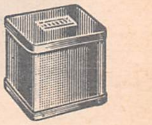
Enables attachment of motor drives to VT4 or VT8 variable transformers for remote or automatic control of these units. Ratings of Series VT4, 115-volt input models range from 3.5 to 4.75 amperes; Series VT8, 115-volt models range from 7.5 to 10 amperes. "LN" type VT4 and VT8 models—40 volt max. input—are rated 12 and 22 amperes respectively. Module increases dimensions of transformer assembly as follows: length increase, 6⅜"; width increase 1¾" for VT4, 1" for VT8; height increase 1 5/16" for VT4, 1" for VT8. Shipping weight 2 lbs.

Stk. No.	Type	Traverse Speed (sec.)	1	2	3	4	5-9
5F564	7001	4	**93.00**	**90.00**	**89.00**	**88.50**	**87.00**
5F565	7002	8					
5F566	7003	16					
5F567	7004	30					
5F568	7005	60					

Model 6512. Adapter plate for mounting single VT4 to motor modular drive.
5F569. 1-5, NET EACH .... **.67** **6-99, NET EACH** .... **.57**

DYNACO SUPER-FIDELITY OUTPUT TRANSFORMERS

Stock No.	Type	Undistorted pwr. 30 cps. to 15KC.	Undistorted pwr. 20 cps. to 20KC.	Min. Freq. resp.	Impedance Ratio	Application	Wt. Lbs.	NET
7F050	A-410	30 w.	15 w.	±1 db. 6 cps. to 60 kc.	8,000 ohms ct to 8, 16 sec.	6V6's, EL-84's 6AQ5's	5	**14.95**
7F051	A-420	60 w.	30 w.	±1 db. 6 cps. to 60 kc.	6,600 ohms ct to 8, 16 sec.	KT66's, 5881's EL34's or 6CA7's	7	**19.95**
7F052	A-430	120 w.	60 w.	±1 db. 6 cps. to 60 kc.	4,300 ohms ct to 8, 16 sec.	6550's, EL34's or KT-88's pp.	14	**29.95**
7F053	A-431	Same as above except—			to 4, 8, 16 sec.	par KT-66	14	**34.95**
7F055	A-450	240 w.	120 w.	±1 db. 4 cps. to 60 kc.	2,200 ohms ct to 8, 16 sec.	#pp. par. 6550's, EL-34's or KT-88's	23	**39.95**



All models have taps on primary windings. Units in steel cans with 12" color coded leads, mtg. studs and hdw. # A450 transformer used in circuits like A-430 with 4 output tubes in parallel. Need 47 ohm resistor in plate and screen leads. Power supply handle 400 ma of dc.

Model PA-015. 400 ma power transformer for 120 watt amplifier circuit. Shpg. wt., 14 lbs.
7F057. NET **21.00**

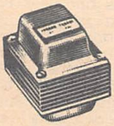
Model P-782. 200 ma power transformer for Dynakit Mark III. Shipping wt., 10 lbs.
7F059. NET **12.00**

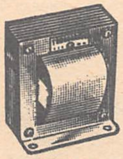
Type C-492. 400 ma choke for 120 watt amplifier circuit. Shpg. wt., 3 lbs.
7F058. NET **4.50**

Type C-354. 200 ma choke for Dynakit Mark III, Mark IV, Stereo 70. Shipping weight, 2 lbs.
7F060. NET **1.50**

THORDARSON TRANSFORMERS

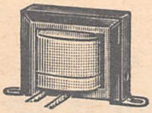
BAV


AGF


CAV

GGV

FGV


BAH

RTV

PLATE TRANSFORMERS

Primary for 115 volts, 50-80 cycles. Secondary voltages changed by tapping primary. Mounts on 3⅜x3" ctrs., HWD is 4⅝x3⅞x4½".

Stk. No.	Type	Fig.	Output Volts	Ma.	Lbs.	1-9	10-24	25-49	50-99	100-249
2F037	21P87	GGV	835-0-835 656-0-656	220	10	13.23	12.15	10.94	10.13	9.62

FILAMENT TRANSFORMERS

Types 21F02 and 21F20 have 10,000 volt insulation for use with high voltage rectifiers, all others, 2,500 volt except * 3,000 v.

Stk. No.	Type	Fig.	Volts	Amps.	1-9	10-24	25-49	50-99	100-249
2F060	21F00	BAV	2.5CT	5	3.15	2.89	2.60	2.41	2.29
2F062	21F02	CAV	2.5CT	10	6.92	6.35	5.72	5.30	5.03
2F063	21F03	BAV	5CT	3	4.46	4.10	3.69	3.42	3.25
2F064	21F04	CAV	5CT	8	6.08	5.58	5.02	4.65	4.42
2F065	21F20	CAV	5CT	15	9.81	9.00	8.11	7.51	7.13
2F068	21F07	CAV	5CT	21	11.22	10.30	9.27	8.58	8.15
2F069	21F08	BAV	6.3CT	1	2.21	2.03	1.82	1.69	1.61
2F079	21F09	BAH	6.3CT	1.2	2.21	2.03	1.82	1.69	1.61
2F070	21F10	BAH	6.3CT	3	3.56	3.27	2.94	2.72	2.58
2F071	21F11	CAV	6.3CT	6	5.20	4.77	4.29	3.97	3.74
2F072	21F12	CAV	6.3CT	10	6.61	6.07	5.46	5.06	4.81
2F074	21F15	BAV	7.5CT	4	4.78	4.39	3.95	3.66	3.48
2F078	21F19	CAV	10CT	12	11.32	10.40	9.36	8.67	8.24
2F081	21F51	BAH	25.2	1	3.43	3.14	2.83	2.62	2.49
2F082	21F52	GGV	12.6 or 25.2	7 or 3.5	8.50	7.81	7.03	6.51	6.18
2F077	21F18	CAV	10CT	5	7.08	6.50	5.85	5.42	5.15
2F330	21F21	BAH	6.3	.6	2.08	1.91	1.72	1.59	1.51
2F332	21F27*	BAH	26.5CT	0.6	4.10	3.76	3.39	3.13	2.97
2F334	26F67	BAH	12.6CT	2	3.60	3.30	2.97	2.75	2.61
2F335	26F68	BAH	24	1	3.93	3.61	3.25	3.01	2.86

MODULATION TRANSFORMERS

Stk. No.	Type	Fig.	Application	Primary	Sec.	Watts	1-9	10-24	25-49	50-99	100-249
2F146	21M67	GGV	PP6V6, etc.	10,000 CT	4000, 5000, 7500, 10,000, 12,000	25	5.72	5.26	4.73	4.38	4.16
2F147	21M68	BAV	PP6V6, etc.	10,000 CT	3000, 5000, 6500, 8000	10	4.50	4.13	3.72	3.44	3.27

DRIVER TRANSFORMER Class "B" drivers

Stk. No.	Type	Fig.	Mtg. Centers	Ht.	W. x D.	Ratio	Ma.	1-9	10-24	25-49	50-99	100-249
2F150	20D75	BAH	2"	1⅜	2⅜x1¼	2.4:1	10	3.41	3.12	2.81	2.60	2.47

UNIVERSAL REPLACEMENT POWER TRANSFORMERS

Adjustable mtg. brackets. 110-120 v., 60 cyc. pri. All AGF, except *GGV, **BAH.

Stk. No.	Type	Plate		Rect.		Fil. 1		Mtg. Centers	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
		Volts	Ma	V	A	V	A							
2F000	22R00	500CT	40	5	2	6.3	2.0	2x2½"	1¾	6.16	5.66	5.10	4.72	4.48
2F001	22R01	550CT	50	5	2	6.3	2.5	2x2½"	2¼	7.25	6.65	5.99	5.54	5.26
2F003	22R04	600CT	90	5	2	6.3	3.5	2¼x2⅞"	3	8.68	7.97	7.18	6.65	6.32
2F004	22R05	600CT	120	5	3	6.3	5.0	2½x3⅛"	4¼	10.07	9.24	8.32	7.70	7.31
2F005	22R06	650CT	150	5	3	6.3	5.0	2½x3⅛"	5½	10.27	9.25	8.33	7.71	7.32
2F006	22R07	700CT	200	5	3	6.3	6.0	3x3¾"	7½	13.84	12.71	11.44	10.59	10.06
2F014*	22R33	750CT	160	5	3	6.3	5.0	2⅞x3"	7½	14.40	13.23	11.91	11.03	10.48
2F016*	22R35	800CT	340	5	6	6.3	7.0	3x4"	12	19.52	17.91	16.12	14.93	14.18
2F018*	22R36	1200CT	200	5	3	6.3	5.0	3x3⅜"	9½	14.35	13.18	11.86	10.98	10.43
2F021*	24R00U	480CT	40	5	2	6.3	2.0	1⅝x2"	2	5.79	5.32	4.79	4.43	4.21
2F024*	24R04U	700CT	90	5	3	6.3	3.5	2¼x2⅝"	4½	8.56	7.87	7.08	6.56	6.23
2F025*	24R05U	700CT	120	5	3	6.3	4.7	2¾x2½"	5¾	9.25	8.50	7.65	7.08	6.73
2F257	22R30	550CT	50	5	2	6.3	2.5	2x2¼"	2¼	7.74	7.11	6.40	5.92	5.62
2F258	22R38	360CT	42			6.3	2.8	1¾x2¼"	1.8	7.93	7.28	6.55	6.07	5.77
2F259	22R40	1800	2	2.5V at 1.8 amps 2.5V at 2.2 amps or 6.3V at .6 amps				2½x2⅞"	5	15.36	14.10	12.69	11.75	11.16
2F260	22R41	450VDC, 16MADC, 900VDC, 8MADC						2⅜"	1	5.66	5.20	4.68	4.33	4.11
2F261†	22R44	Discharge from 200V Con. 15KV. Peak						1½"	.2	6.29	5.78	5.20	4.82	4.58

† Photo Flash

SOLID STATE RECTIFIER POWER TRANSFORMERS

*Full wave, single high voltage secondary.

Stk. No.	Type	Volts	MaDC	Fil. Volts	Fil. Amps	MTG. Centers Inches	1-9	10-24	25-49	50-99	100-249
2F253*	22R39	125-0-125	25	6.3	1	2⅜	2.99	2.75	2.47	2.29	2.18
2F254	26R60	150	25	6.3	.5	2	3.45	3.17	2.85	2.64	2.51
2F017	22R12	150	50	6.3	1.5	3⅛	5.04	4.63	4.17	3.85	3.66
2F043	26R32	117	120	6.3	0.7	2	4.40	4.04	3.64	3.37	3.20

VIBRATOR POWER TRANSFORMERS

Stk. No.	Type	Primary	Secondary	Lbs.	1-9	10-24	25-49	50-99	100-249
2F050	22R52	12v. AC	280v. DC. 78 ma.	1.0	4.35	4.00	3.60	3.33	3.16
2F256	22R23	6v. AC	320v. CT. 80 ma.	2	5.78	5.31	4.78	4.43	4.21

HIGH FIDELITY AUDIO OUTPUT TRANSFORMER

Specially designed for "Twin-Coupled" amplifier.

Stk. No.	Type	Primary Imp.	Pri. MaDC	Secondary Imp.	Watts	Mtg. Center	1-9	10-24	25-49	50-99	100-249
2F239	22S21	4000CT	75	8-16-32	7.5	3⅛	4.27	3.92	3.52	3.26	3.10

AUDIO INTERSTAGE TRANSFORMERS

Stk. No.	Type	Fig.	Application	Ratio	1-9	10-24	25-49	50-99	100-249
2F180	20A16	BAH	Sgl. Pl. to Sgl. or PP grids	1:2	2.36	2.17	1.95	1.80	1.71
2F182	20A19	BAH	Sgl. or PP Pl. to Sgl. or PP grids	1:3	2.65	2.43	2.19	2.03	1.93
2F179	20A18	BAH	Sgl. Pl. to Sgl. or PP grids	1:3	2.52	2.31	2.08	1.93	1.83

Newark can supply the complete RTV line of Thordarson transformers at Factory Competitive Prices.

THORDARSON TRANSFORMERS

TUBE-TO-LINE MIXER

No.	Type	Fig.	Use	Pri.	Sec. Imp.	Watts	1-9	10-24	25-49	50-99	100-249
2F231	22S90	FGV	Sgl. or PP Pl. to line	20000CT	125-200-500	8	4.41	4.04	3.64	3.37	3.20

POWER TRANSISTOR OUTPUT TRANSFORMERS

No.	Type	Impedance Pri.	Impedance Sec.	Pri. Ma. DC.	Power Watts	Mtg. Type	1-9	10-24	25-49	50-99	100-249
2F521	TR-58	32CT	3.2/8/16	575	10	BAH	4.88	4.48	4.03	3.74	3.55
2F523	TR-60	48CT	3.2/8/16	550	10	BAV	4.88	4.48	4.03	3.74	3.55
2F524	TR-61	48CT	3.2/8/16	550	5	BAV	2.42	2.21	1.99	1.85	1.76
2F525	TR-62	100	3.2/8/16	150	3	BAV	2.42	2.21	1.99	1.85	1.76
2F526	TR-63	100CT	3.2/8/16	500	10	BAV	4.42	4.05	3.65	3.38	3.21

TRANSISTOR DRIVER TRANSFORMERS

No.	Type	Impedance Pri.	Impedance Sec.	Pri. Ma. DC	Power Watts	Mtg. Type	1-9	10-24	25-49	50-99	100-249
2F527	TR-64	100	100CT	200	.5	BAH	2.42	2.21	1.99	1.85	1.76
2F528	TR-65	100	200CT	200	.5	BAH	2.42	2.21	1.99	1.85	1.76
2F529	TR-66	500CT	200CT	50	.5	BAH	2.49	2.30	2.07	1.91	1.81

HI FI TRANSISTOR TRANSFORMERS

Completely Encased. 20-20000 cps, plus or minus ½ db. $1\frac{3}{16}$x$1\frac{3}{16}$x$1\frac{9}{16}$''.

No.	Type	Impedance Pri.	Impedance Sec.	Primary Ma. DC	Power Watts	Mtg. Type	1-9	10-24	25-49	50-99	100-249
2F530	TR-67	125CT	8	50	1.5	XAV	6.30	5.78	5.20	4.82	4.58
2F531	TR-68	5000	3000CT	20	.2	XAV	6.91	6.35	5.71	5.29	5.03

ISOLATION CONTROL 1:1:1:1 MULTI-PURPOSE TRANSFORMERS

Stock No.	No.	Voltage Pri.	Voltage Sec.	V.A. Rating	Mtg. Type	Mtg. Centers	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
2F313	23V34	115/230	115/230	50	CTH	2½x2⅛"	2.75	9.44	8.67	7.80	7.22	6.86
2F314	23V35	115/230	115/230	100	CTH	3⅛x2⅛"	5	14.17	13.01	11.70	10.84	10.30
2F318	23V39	115/230	115/230	1000	CTH	5⅜x4½"	23	47.19	43.34	39.00	36.11	34.30
2F263	23V36	115/230	115/230	200	CTH	3¾x2¾"	9	17.64	15.88	14.29	13.23	12.57
2F264	23V38	115/230	115/230	500	CTH	4⅛x4⅛"	17	32.10	28.89	26.00	24.08	22.88

SINGLE PLATE TO VOICE COIL OUTPUT TRANSFORMERS

No.	Type	Fig.	Pri.	Sec.	Watts	1-9	10-24	25-49	50-99	100-249
2F221	24S51	BAH	5000	3—4	5	1.54	1.42	1.28	1.19	1.13

UNIVERSAL OUTPUT TRANSFORMER

2F224	24S60	BHH	Sgl. or PP 4K, 7K, 8K, 10K, 14K CT	0.1 to 29	4	2.85	2.60	2.34	2.17	2.06
2F227	24S74	BHH	1K, 2K, 4K, 8K, 16K CT	4/8	5	2.98	2.74	2.46	2.28	2.17

UNIVERSAL CHOKES

Replace swinging or smoothing types. Voltage regulations not affected. Provides more inductance in filter throughout current range, decreasing ripple voltage.

Stock No.	Mfr's. Type	Fig.	Induct. Henries	Current Ma	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
2F100	20C50	BAH	350	5	1.5	4.16	3.82	3.43	3.18	3.02
2F101	20C51	BAH	35	15	.75	2.26	2.07	1.86	1.73	1.64
2F102	20C52	BAH	8	40	.75	1.92	1.76	1.59	1.47	1.40
2F103	20C53	BAH	12	80	1.5	2.79	2.55	2.29	2.12	2.01
2F104	20C54	GGV	8	150	3	4.86	4.46	4.02	3.72	3.53
2F105	20C55	GGV	6	200	3.75	6.22	5.72	5.14	4.77	4.53
2F106	20C56	GGV	8	250	6.75	9.91	9.10	8.19	7.58	7.20
2F320	20C59	BAH	7	55	.75	2.05	1.88	1.69	1.57	1.49
2F321	20C64	BAH	4	130	1.5	2.69	2.47	2.22	2.06	1.96
2F324	26C40	BAH	1.5	10	.5	1.64	1.50	1.35	1.25	1.19
2F328	26C44	BAH	1	300	1.5	3.52	3.23	2.91	2.70	2.56

TRANSISTOR TRANSFORMERS

Stock No.	Mfr's. Type	Application	Turns Ratio	Impedance Pri.	Impedance Sec.	Power Mw	1-9	10-24	25-49	50-99	100-249
2F400	TR-1	B-D-I	1.00:1	500CT	500CT	300	3.91	3.59	3.23	2.99	2.84
2F401	TR-2	B-D-I	1.23:1	5000CT	7500CT	150					
2F404	TR-5	D-S	1.81:1	490CT	150CT	150					
2F406	TR-7	D-J	2.24:1	10000	2000CT	150					
2F407	TR-8	S	2.45:1	48CT	8-4	300					
2F410	TR-11	D-S	3.16:1	500CT	.50	150					
2F421	TR-22	S	7.07:1	400CT	8-4	300					
2F422	TR-23	D-S	7.07:1	10000	200CT	150					
2F426	TR-27	S	12.5:1	500CT	3.2	150					
2F427	TR-28	A	14.1:1	200000	1000	300					
2F435	TR-36	A	50.0:1	500000	200CT	300	4.15	3.81	3.43	3.17	3.01
2F424	TR-25	I-S	8.66:1	15000	200CT	150	3.91	3.59	3.23	2.99	2.84

SINGLE PLATE TO PUSH-PULL GRIDS TRANSFORMER

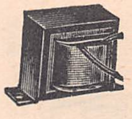
Stk. No.	Mfr's Type	Primary Ratio To ½ Sec	Max. MADC	Mtg. Type	Mtg. Cen.	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
2F255	20D76	5.2:1	15	BAH	2	½	3.47	3.12	2.81	2.60	2.47

AUTOMATION CONTROL TRANSFORMERS

Stk. No.	Mfr's Type	Secondary Parallel	Secondary Series	V.A. Rating	Mtg. Type	Mtg. Cen.	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
2F266	23V50	6V@2A	12V@1A	12	BHV	2⅜	¾	5.01	4.51	4.06	3.76	3.57
2F267	23V51	6V@4A	12V@2A	24	BHV	2⅞	1½	6.80	6.12	5.51	5.10	4.84

CONTROL AND POWER CIRCUIT TRANSFORMER

Stk. No.	Mfr's Type	Secondary Volts	V.A. Rating	Mtg. Type	Mtg. Cen.	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
2F265	23V40	4, 8, 12, 16, 24	50	GGV	1⅞x2¼"	3	9.63	8.67	7.80	7.22	6.86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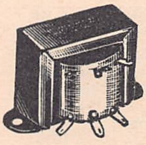
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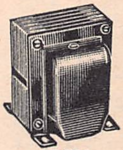
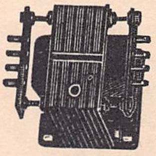
BAV


GGV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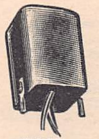

XAV

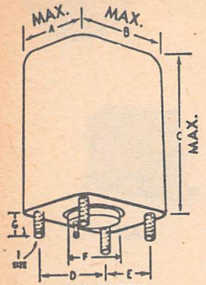
NOTE:
Key to application of transformers.
A—Input
B—Bridging
D—Driver
I—Interstage
S—Output

TRIAD TRANSFORMERS

WRITE FOR PRICES ON ITEMS NOT LISTED

TYPE HS-HSM HERMETICALLY SEALED TRANSFORMERS

HS-HSM series transformers are designed to meet MIL-T-27A requirements. Equip. using these transformers need not be redesigned to submit for MIL. approval. These transformers are permanently marked with electrical and test data as specified in MIL-T-27A. All are "Climatite" treated. Avg. wt. 10 oz.



HS SIZES

	AH	AJ	EA
A	1 5/16	1 5/8	1 13/16
B	1 5/16	1 5/8	1 15/16
C	1 3/4	2 3/8	2 3/4
D	1 1/4	1 3/16	1 3/8
E		1 3/16	1 1/4
G	3/8	3/8	3/8
I	6-32	6-32	6-32
Wt. lbs.	4 oz.	9 oz.	1

	EB	FA	FB
A	1 13/16	2 1/16	2 1/16
B	1 15/16	2 5/16	2 5/16
C	2 7/16	3 1/8	2 1/2
D	1 3/8	1 11/16	1 11/16
E	1 1/4	1 7/16	1 7/16
G	3/8	3/8	3/8
I	6-32	6-32	6-32
Wt. lbs.	15 oz	1 3/4	1 1/2

	GB	HA
A	2 3/8	2 5/8
B	2 3/4	3 1/16
C	2 13/16	4 1/4
D	2 1/8	2 19/64
E	1 3/4	1 55/64
G	3/8	3/8
I	6-32	8-32
Wt. lbs.	1 3/4	2 1/2

	KA	JA	JB
A	3 3/8	3 1/16	3 1/16
B	3 15/16	3 9/16	3 9/16
C	5 1/4	4 7/8	3 7/8
D	3	2 5/8	2 5/8
E	2 7/16	2 1/8	2 1/8
G	1/2	3/8	3/8
I	10-32	8-32	8-32
Wt. lbs.	7 3/4	4 1/2	4

	KB	LA
A	3 3/8	3 11/16
B	3 15/16	4 15/16
C	4 5/16	5 9/16
D	3	3 5/16
E	2 7/16	2 11/16
G	1/2	1/2
I	10-32	10-32
Wt. lbs.	7	9 1/4

FILAMENT TRANSFORMERS 50/60 CYCLE

Stk. No.	Type	MIL Type	Pri. Volts	Sec. Volts	Sec. Amp.	Case	1-9	10-24	25-49	50-99	100-249	250 up
3F836	HSM-225	TF4RX01EA	105-115-125	6.3CT	2	EA	14.28	12.85	11.57	10.71	10.17	9.64
3F736	HSM-229	TF4RX01JB	105-115-125	6.3CT	8	JB	21.96	19.76	17.79	16.47	15.65	14.82
3F737	HSM-230	TF4RX01FA	105-115-125	24CT	0.8	FA	15.72	14.15	12.73	11.79	11.20	10.61
3F838	HSM-228	TF4RX01JA	105-115-125	6.3CT,6.3	6	JA	23.19	20.87	18.78	17.39	16.52	15.65

ISOLATION/50-60 CYCLE TRANSFORMER

Stk. No.	Type	Mil. Type	Secondary Volts	Secondary Cur.	Va.	Case	1-9	10-24	25-49	50-99	100-249	250-up
3F656	HSM-271	TF1RX01KA	0-105-115-125	1A	125	KA	26.10	23.49	21.14	19.58	18.60	17.62

TYPE HS FILAMENT TRANSFORMERS 380/1500 CYCLE

Stk. No.	Type	MIL Type	Pri. Volts	Sec. Volts	Sec. Amp.	Case	1-9	10-24	25-49	50-99	100-249	250-up
3F738	HS-436	TF4RX01AH	115	6.3CT	1	AH	11.40	10.26	9.23	8.55	8.12	7.70
3F739	HS-425	TF4RX01YY	105-115-125	6.3CT	2	AJ	13.32	11.99	10.79	9.99	9.49	8.99
3F740	HS-427	TF4RX01EA	105-115-125	6.3CT	5	EA	16.02	14.42	12.98	12.02	11.41	10.81
3F741	HS-438	TF4RX01EA	105-115-125	24CT	1.5	EA	16.38	14.74	13.27	12.29	11.67	11.06
3F742	HS-433	TF4RX01FA	105-115-125	6.3CT6.3	5	FA	17.76	15.98	14.39	13.32	12.65	11.99
3F745	HS-443	TF4RX01YY	105-115-125	12.6CT,12.6	0.8	AJ	16.08	14.47	13.02	12.06	11.46	10.85
3F719	HS-442	TF4RX01EA	57.5-99.7-115-120	12.6CT,12.6	5	EA	19.08	17.17	15.45	14.31	13.59	12.88

TYPE TY AUDIO TRANSISTOR TRANSFORMERS

Stk. No.	Type	Prim. Imped.	Size	Mtg. Ctrs.	Sec. Imped.	Max. MW	1-9	10-24	25-49	50-99	100-249	250-up
2F921	TY32X	200 CT	1 3/16x1 5/8x7/8″	1 3/8	2,000 CT	200	3.90	3.51	3.16	2.93	2.78	2.63
2F923	TY34X	400 CT	1 3/16x1 5/8x7/8″	1 3/8	2,000 CT	200	3.90	3.51	3.16	2.93	2.78	2.63
2F924	TY35X	500 CT	1 1/16x1 9/32x1 1/16″	1 1/16	150 CT	100	3.75	3.38	3.04	2.81	2.67	2.53
2F926	TY37X	2,000 CT	1 3/16x1 5/8x7/8″	1 3/8	8,000 CT	200	3.99	3.59	3.23	2.99	2.84	2.61
2F933	TY44X	1,000	1 3/16x1 5/8x1 3/16″	1 3/8	16/8/4	200	3.87	3.48	3.13	2.90	2.76	2.61
2F934	TY45X	500 CT	1 3/16x1 5/8x7/8″	1 3/8	16/8/4	200	3.87	3.48	3.13	2.90	2.76	2.69
2F937	TY49X	500 CT	1 3/8x2 3/8x1 3/8″	2	5,000 CT	100	2.94	2.65	2.38	2.21	2.09	1.98
2F939	TY51X	2,000 CT	5/8x1 9/32x1 1/16″	1 1/16	200 CT	100	4.14	3.73	3.35	3.11	2.95	2.79
2F940	TY52X	20,000 CT	1 3/16x1 5/8x7/8″	1 3/8	2,000 CT	200	4.47	4.02	3.62	3.35	3.18	3.02
2F941	TY54X	15,000	1 3/16x1 5/8x7/8″	1 3/8	200 CT	200	4.26	3.83	3.45	3.20	3.04	2.88
2F943	TY56X	10,000	1 3/16x1 5/8x7/8″	1 3/8	2,000 CT	200	4.32	3.89	3.50	3.24	3.08	2.92
2F944	TY57X	250 CT	1 3/16x1 5/8x7/8″	1 3/8	16/8/4	200	3.69	3.32	2.99	2.77	2.63	2.49

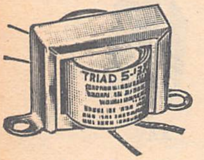
TYPE TY DC-TO-AC TRANSISTOR TRANSFORMERS

Stock No.	Mfr. Type	DCV Pri.	Secondary (115 VAC)	Dimensions (HWD, in.)	Mtg. Dim. MW	Mtg. Dim. MD	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-Up
3F651	TY-468	28	400cps 60W.	1 7/8x2 1/4x2	1 7/8″	1 3/8″	1/2	9.51	8.56	7.70	7.13	6.78	6.42
3F652	TY-75A	12	60cps 115W.	3 7/8x3 9/32x3 1/4	2 1/2″	2 3/8″	5	12.00	10.80	9.72	9.00	8.55	8.10
3F653	TY-76A	12	60cps 60W.	3 3/32x2 21/32x2 5/8	2″	1 7/8″	3	8.25	7.43	6.68	6.19	5.88	5.57

TYPE TY OUTPUT AND DRIVER TRANSISTOR TRANSFORMERS—HIGH LEVEL

Stock No.	Type No.	Pri. Match. Imped.	Pri. Cur. MA	Sec. Match. Imped.	Max. Level	Size	1-9	10-24	25-49	50-99	100-249	250-up
2F959	TY-29X	24 CT	500	8/4	8 W	2x3 5/16x1 7/8″	4.26	3.83	3.45	3.20	3.04	2.88
2F949	TY-30X	100 CT	100	8/4	2 W	1 3/16x2 1/8x1 1/4″	3.33	3.00	2.70	2.50	2.37	2.25
2F950	TY-31X	200 CT	60	8/4	2 W	1 3/16x2 1/8x1 1/4″	3.33	3.00	2.70	2.50	2.37	2.25
2F951	TY-48X	100 CT	40	16/8/4	5 W	1 3/16x1 5/8x7/8″	4.08	3.67	3.30	3.06	2.91	2.75
2F952	TY-53X	200 CT	100	400 CT	4 W	2x3 5/16x2″	3.42	3.08	2.77	2.57	2.44	2.31
2F953	TY-61X	100	100	100 CT	8 W	1 5/8x2 13/16x1 3/8″	3.06	2.75	2.48	2.30	2.18	2.07
2F954	TY-63X	48 CT	275	16/8	5 W	2x3 5/16x1 7/8″	4.17	3.75	3.38	3.13	2.97	2.81
2F955	TY-64X	32 CT	575	16/8/4	10 W	2x3 5/16x1 7/8″	3.81	3.43	3.09	2.86	2.71	2.57
2F956	TY-65Z	32 CT	575	6K/4K/3K	10 W	2 5/16x2 7/8x2″	3.81	3.43	3.09	2.86	2.71	2.57
2F957	TY-66A	6 CT	5A	6K/4K/3K	40 W	3 7/8x3 9/32x3 1/8″	9.42	8.48	7.63	7.07	6.71	6.36
2F958	TY-67A	6 CT	5A	16/8/4	40 W	3 7/8x3 9/32x3 1/8″	9.75	8.78	7.90	7.31	6.95	6.58

MINIATURE AUDIO—"TRIJETS"



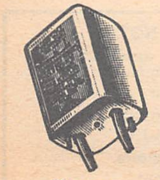
CASE X

No.	Type	Application*	Pri. Imp.	Sec. Imp.	Resp.	1-9	10-24	25-49	50-99	100-249	250-Up
3F912	T-2X	Line/mike-grid. Hi-gain	600/250/50	250000	100-1500	4.32	3.89	3.50	3.24	3.08	2.92
3F917	T-31X	Line to line	600/250/50	600/250/50	60-15000	4.01	3.61	3.25	3.01	2.86	2.71
3F918	T-33X	Hi-imp. line to line	5000 CT	5000 CT	60-15000	4.01	3.61	3.25	3.01	2.86	2.71

*Units have 1″ mtg. ctrs., 1 7/32″Wx5/8″Hx3/4″D.

CHOPPER INPUT TRANSFORMERS—30 TO 500 CYCLES

One half of primary balanced to other half in both inductance and "Q". Cores specially treated to eliminate noise in microvolt range of input signals.



Chopper

Stock No.	Type	Primary Imp. in Ohms	Secondary Imp. in Ohms	Size	Weight	1-9	10-24	25-49	50-99	100-249	250-up
4F255	G-21	200000 CT.	12500 CT.	2 3/4Hx1 5/8x2″	5 1/4 oz.	23.65	21.29	19.16	17.74	16.85	15.97
4F256	G-22	50000 CT.	800000 CT.	2 3/4Hx1 5/8x2″	1 lb.	31.22	28.10	25.29	23.42	22.25	21.08
4F257	G-23	40000 CT.	1000 CT.	2 3/4Hx1 5/8x2″	5 1/4 oz.	23.65	21.29	19.16	17.74	16.85	15.97
4F259	G-25	40000 CT. or 10000 CT.	10000 CT.	2 1/8Hx1 1/16x1 1/4″	5 1/4 oz.	23.65	21.29	19.16	17.74	16.85	15.97

NOTE: LAST LETTER OF MFGR. OR MIL TYPE NUMBER FOR ITEMS ON THIS PAGE DENOTES CASE STYLE.

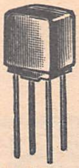
TRANSFORMERS

TYPE SP "RED SPEC" TRANSISTOR TRANSFORMERS

Type SP. Designed especially for use in transistorized and printed circuit applications, these units come in tough epoxy-molded cases, weigh 1/10 oz.! Incorporate .020" dia. strong nickel-alloy leads spaced on standard 1/10" grid ctrs. to fit printed circuit boards. Base dimensions: .310x.410". Lead length: ¾". Meet MIL-T-27A specs. *SP-66 is an output-isolation transformer. Shpg. wt., 1 oz.

Stock No.	Type	MIL-T-27A Designation	Pri. Imp.	Sec. Imp.	Pwr. M.W.	1-9	10-24	25-49	50-99	100-249	250-up
INPUT	Response: ± 2 db, 230 cps-50 kc @ 25 mw., 100 cps-50 kc @ 1 mw.										
3F011	SP-4	TF5RX16ZZ	200K CT	1K CT	10	7.80	7.41	7.02	6.50	6.18	5.85
3F012	SP-5	TF5RX16ZZ	50K CT	1K CT	25	7.65	7.27	6.89	6.38	6.06	5.74
INTERSTAGE	Response: ± 2 db, 200 cps-50 kc @ 40 mw., 100 cps-50 kc @ 1 mw.										
3F016	SP-15	TF5RX13ZZ	10K/12K CT	1.5K/1.8K CT	50	7.20	6.84	6.48	6.00	5.70	5.40
DRIVER	Response: ± 2 db, 175 cps-50 kc.										
3F017	SP-20	TF5RX13ZZ	10K/12K CT	1.2K/1.5K CT	50	6.90	6.56	6.21	5.75	5.46	5.18
3F018	SP-21	TF5RX13ZZ	10K/12K CT	2K/2.5K CT	50	6.90	6.56	6.21	5.75	5.46	5.18
3F019	SP-29	TF5RX13ZZ	10K/12K CT	500/600 CT	50	6.90	6.56	6.21	5.75	5.46	5.18
OUTPUT	Response: ± 2 db. 250 cps-50 kc @ 50 mw., 150 cps-50 kc @ 1 mw.										
3F257	SP-33	TF5RX17ZZ	1K/1.2K	50/60	50	5.85	5.56	5.27	4.88	4.63	4.39
3F279	SP-48	TF5RX13ZZ	7.5K/10K CT	12/16	50	6.75	6.41	6.08	5.63	5.34	5.06
3F281	SP-50	TF5RX17ZZ	500 CT	600	50	6.00	5.70	5.40	5.00	4.75	4.50
3F283	SP-52	TF5RX13ZZ	1.5K CT	600	50	6.30	5.99	5.67	5.25	4.99	4.73
3F284	SP-59	TF5RX17ZZ	120/150 CT	3.2/4	50	5.85	5.56	5.27	4.88	4.63	4.39
3F291	SP-65	TF5RX13ZZ	8K/10K CT	3.2/4	50	6.75	6.41	6.08	5.63	5.34	5.06
3F292	SP-66	TF5RX13ZZ	10K CT*	10K CT	50	7.80	7.41	7.02	6.50	6.18	5.85
			CHOKES								
3F293	SP-106	TF5RX20ZZ	6 hy. @ 2 ma.	....	....	5.70	5.42	5.13	4.75	4.51	4.28
3F294	SP-107	TF5RX20ZZ	1.25 hy. @ 2 ma.	....	....	4.80	4.56	4.32	4.00	3.80	3.60
3F216	SP-108	TF5RX20ZZ	3.5 hy. @ 2 ma.	....	....	4.80	4.56	4.32	4.00	3.80	3.60
3F217	SP-118	TF5RX20ZZ	.3 hy. @ 4 ma.	....	....	4.80	4.56	4.32	4.00	3.80	3.60
3F318	SP-310	Magnetic Shielding Case		....	....	.84	.80	.76	.70	.67	.63

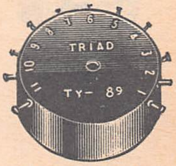
"Red Spec"


SP-310 Magnetic Shielding Case

TYPE TY EPOXY MOLDED TOROIDAL TYPES

Type TY. Compact, hermetically sealed units makes for greatly reduced noise level. Usable in either common-emitter or common-collector circuitry at very high efficiency. Single-hole mounting and peripheral terminals permit ready stacking for easy series—parallel connection if increased output is desired. Meet MIL-T-27A, Grade 5, Class R specs. DC Source Volts: *12.6, ‡28. Av. Shpg. wt., 1¼ lb.

Stock No.	Mfr. Type	DCV from Rectifier	Max. DC Ma.	D.xH. (in.)	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
3F633	*TY-78	250/125	100	1¾x 11⁄16	.35	11.25	10.69	10.13	9.38	8.91	8.44
3F634	*TY-79	300/150	200	1¾x1	.35	12.21	11.60	10.99	10.18	9.67	9.16
3F635	*TY-80	325/162.5	150	1¾x1	.35	12.33	11.71	11.10	10.28	9.76	9.25
3F636	*TY-81	375/187.5	200	2 x1	.50	12.51	11.88	11.26	10.43	9.90	9.38
3F637	*TY-82	450/225	150	2 x1	.50	12.90	12.26	11.61	10.75	10.21	9.68
3F638	*TY-83	500/250	250	2¾x1⅜	.85	14.91	14.16	13.42	12.43	11.80	11.18
3F639	*TY-84	600/300	200	2¾x1⅜	1.00	15.90	15.11	14.31	13.25	12.59	11.93
3F640	‡TY-88	250/125	80	15⁄16x 9⁄16	.25	11.10	10.55	9.99	9.25	8.79	8.33
3F644	‡TY-92	450/225	200	2 x1	.50	13.20	12.54	11.88	11.00	10.45	9.90
3F646	‡TY-94	600/300	200	2¾x1⅜	1.00	15.96	15.16	14.36	13.30	12.64	11.97



Epoxy Molded Toroidal

EC SERIES TOROIDS

Stk. No.	Type No.	Ind.	Approx. Ohms	DC-ma for 5% ind. drop	1-9	10-24	25-49	50-99	100-249	250-up
4F015	EC-001-A	1 mh	.40	520	5.79	5.50	5.21	4.83	4.58	4.34
4F016	EC-002-A	2 mh	.56	368						
4F017	EC-003-A	3 mh	.70	300						
4F018	EC-004-A	4 mh	.82	260						
4F019	EC-005-A	5 mh	.92	233						
4F036	EC-010-A	10 mh	1.30	165	5.94	5.64	5.35	4.95	4.70	4.46
4F037	EC-015-A	15 mh	1.60	134	5.94	5.64	5.35	4.95	4.70	4.46
4F038	EC-020-A	20 mh	1.85	116	6.00	5.70	5.40	5.00	4.75	4.50
4F039	EC-030-A	30 mh	2.85	95	6.00	5.70	5.40	5.00	4.75	4.57
4F051	EC-050-A	50 mh	4.60	74	6.09	5.79	5.48	5.08	4.82	4.57
4F053	EC-100-A	100 mh	8.00	52	6.18	5.87	5.56	5.15	4.89	4.64
4F054	EC-200-A	200 mh	25.00	37	6.24	5.93	5.62	5.20	4.94	4.68
4F055	EC-250-A	250 mh	28.00	33	6.24	5.93	5.62	5.20	4.94	4.68
4F056	EC-300-A	300 mh	38.20	30	6.30	5.99	5.67	5.25	4.99	4.73
4F058	EC-500-A	500 mh	63.50	23	6.39	6.07	5.75	5.33	5.06	4.79
4F060	EC-700-A	700 mh	80.00	19.5	6.45	6.13	5.81	5.38	5.11	4.84
4F076	EC-1000-A	1000 mh	113.00	16.5	6.54	6.21	5.89	5.45	5.18	4.91
4F078	EC-2000-A	2000 mh	243.00	11.6	6.75	6.41	6.08	5.63	5.34	5.06
4F079	EC-3000-A	3000 mh	370.00	9.5	6.84	6.50	6.16	5.70	5.42	5.13
4F236	EC-5000-A	5000 mh	645.00	7.4	7.08	6.73	6.37	5.90	5.61	5.31
4F237	EC-7000-A	7000 mh	780.00	6.2	7.59	7.21	6.83	6.33	6.01	5.69
4F238	EC-10000-A	10000 mh	1190.00	5.2	8.22	7.81	7.40	6.85	6.51	6.17

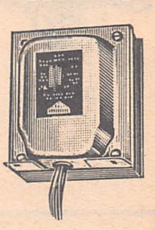
TRIAD
TRANSFORMER CORP.
LOS ANGELES CALIFORNIA
EC Series

EC SERIES. Powdered nickel alloy dust cores closely approach perfect inductor with high "Q", high stability with level and temp. High res. to shock and vibration. Ind. coils held to 2% inductance tol. Supplied with leads, encapsulated in strong plastic or molded epoxy to meet MIL-T-27A. Size: 15⁄16 dia. x 23⁄32" ht. Shpg. wt. 8½ lbs.

TYPE R COMBINED PLATE AND FILAMENT TRANSFORMERS—Primary 115 Volts, 60 Cycles

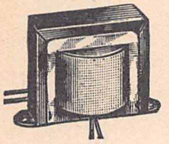
All types are "Climatite" treated for protection against moisture and for elimination of lamination chatter. Hold temp. rise below 55°C. Only copper foil static shields, grounded to the case and core, are used. Leads are UL approved. All connection data permanently marked on case. Small in size.

No.	Type No.	Plate Supply		Rect. Fil.		Other Fil.		Mtg. Dim.-"		1-9	10-24	25-49	50-99	100-249	250-over
		AC V	DC Ma	Volts	Amp.	Volts	Amp.	MW	MD						
3F942	R-4A	500CT	40	......	....	6.3CT	2	113⁄16	1⅞	6.15	5.54	4.98	4.61	4.38	4.15
3F943	R-5A	600CT	65	......	....	6.3CT	2.7	2	1⅞	6.90	6.21	5.59	5.18	4.92	4.66
3F944	R-6A	480CT	50	5	2	6.3CT	2	2	1⅞	7.32	6.59	5.93	5.49	5.22	4.94
3F945	R-7A	600CT	50	5	2	6.3CT	2	2	1⅞	7.38	6.64	5.98	5.54	5.26	4.98
3F946	R-8A	500CT	75	5	2	6.3CT	2.5	2	2⅜	7.68	6.91	6.22	5.76	5.47	5.18
3F947	R-9A	600CT	75	5	2	6.3CT	3	2¼	2⅛	8.49	7.64	6.88	6.37	6.05	5.73
3F948	R-10A	525CT	90	5	2	6.3CT	5	2¼	2½	8.91	8.02	7.22	6.68	6.35	6.01
3F949	R-11A	700CT	90	5	2	6.3CT	3.5	2¼	2⅝	9.27	8.34	7.51	6.95	6.60	6.26
3F678	R-14A	700CT	125	5	3	6.3CT	4.5	2½	2¾	10.41	9.37	8.43	7.81	7.42	7.03
3F950	R-20A	700CT	200	5	3	6.3CT	8	2¾	3¼	13.80	12.42	11.18	10.35	9.83	9.32
3F696	R-72A	800CT	140	5	3	6.3	4	2¾	2½	11.91	10.72	9.65	8.93	8.49	8.04


Case A

NOTE: LAST LETTER OF MFR. TYPE NUMBER FOR ITEMS ON THIS PAGE DENOTES CASE STYLE

TRANSFORMERS



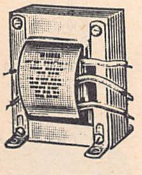
Case X

TYPE R POWER TRANSFORMERS FOR PREAMPLIFIERS, VTVM, etc.—Primary 115 volts, 60 cycles

Stk. No.	Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Fil. Windings Volts-Amps.	Mtg. Dim.-In. MW	Mtg. Dim.-In. MD	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-over
3F930	R-68A	800 CT.	30	5V.-2A, 6.3-1.2A, 6.3V.-1.2A.	2	2⅜	3	10.32	9.29	8.36	7.74	7.35	6.97
3F932	R-3A	500 CT.	20	6.3V.CT.-2A.	1¾	1¾	1¾	6.00	5.40	4.86	4.50	4.28	4.05
3F933	R-29A	230 CT.	40	6.3V.-1.5A.	1¾	1⅝	1¾	5.85	5.27	4.74	4.39	4.17	3.95
3F934	R-30X	135	50	6.3V.-1.5A.	3⅛		1½	4.89	4.40	3.96	3.67	3.48	3.30
3F935	R-54X	115	15	6.3V.-6A	2⅜		1	3.63	3.27	2.94	2.72	2.59	2.45

TRANSFORMER FOR CATHODE RAY PRIMARY 115 VOLTS

Stk. No.	Type	Plate Supply AC Volts	Plate Supply DC Ma	Filament Windings Volts and Amperes	HxWxD	1-9	10-24	25-49	50-99	100-249	250-up
3F853	R-43C	1600	3	6.3/5/2.5V., 1A 6.3/5/2.5V, 3A	2⅜x3 1/16x2 9/16	10.32	9.29	8.36	7.74	7.35	6.97
4F264	R-41C	440-0-440-1250	125/5	6.3V-6A. 2.5V-1.75A 2.5V-1.75A, 5.0V-3.0A	3¼x4 3/16x3½	16.86	15.17	13.66	12.65	12.01	11.38
4F265	R-83A	800 CT 650	70 3	6.3CTV.-3.5A. 6.3V.-.6A. 1.25V-.3A.	3½x2 31/32x3¾	14.40	12.96	11.66	10.80	10.26	9.72



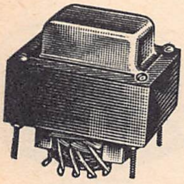
Case U

TRANSFORMERS FOR REGULATED POWER SUPPLIES—PRIMARY 115 VOLTS—50-60 CYCLES

Stk. No.	Type	Plate Supply AC Volts	Plate Supply DC Ma	Filament Windings Volts and Amps		Case Dim. Inches H	Case Dim. Inches W	Case Dim. Inches D	1-9	10-24	25-49	50-99	100-249	250-up
3F937	R-70A	800 CT	75	6.3V, .6A 6.3V. .3A	6.V, .9A 6.3V, 3A	3⅞	3 9/32	3⅛	12.30	11.07	9.96	9.23	8.76	8.30
3F938	R-26A	880-720CT	200	6.3CT, 8A 6.3V, 1A	6.3V, 3A 5V, 3A	4⅝	3 15/16	4¾	18.78	16.90	15.21	14.09	13.38	12.68

TYPE P PLATE POWER TRANSFORMERS—Primary 115 Volts 60 Cycles

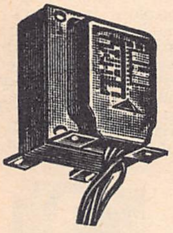
No.	Type No.	Secondary Volts AC	Secondary Volts DC	Sec. DC Ma. CCS	Sec. DC Ma. ICAS	Rect. Fil.	Mtg. Dim.-" MW	Mtg. Dim.-" MD	1-9	10-24	25-49	50-99	100-249	250-over
3F683	P-1A	440/220CT	180/90	160	192	5V-3A	2¼	2⅛	9.24	8.32	7.48	6.93	6.58	6.24
3F685	P-5A	1100CT	400	250	300	5V-4A	3	2⅞	13.92	12.53	11.28	10.44	9.92	9.40
3F686	P-7A	1235CT	500	250	300	5V-4A	3	3⅛	14.16	12.74	11.47	10.62	10.09	9.56



Case C

TYPE F SELENIUM RECTIFIER TRANSFORMERS—Primary 60 cycles

Stk. No.	Type No.	Pri-Volts	Secondary AC Volts	Secondary Amps RMS	Rectifier Circuit HW Volts DC	Rectifier Circuit FWB Volts DC	Mtg. Dim. MW	Mtg. Dim. MD	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-over
3F984	F-47U	115	17-18	3	6-7	13-14	1⅝	2⅜	3.2	6.30	5.67	5.10	4.73	4.49	4.25
3F962	F-48U	115	17-18	6	6-7	13-14	2½	2 11/16	5.5	9.15	8.24	7.41	6.86	6.52	6.18
3F985	F-49U	115	36 36	3 3	13	26	3	3 1/16	9.75	14.10	12.69	11.42	10.58	10.05	9.52
3F963	F-60U	115	6.5-13-19.5-26	3	9	18	2¼	2 3/16	3.5	7.59	6.83	6.15	5.69	5.41	5.12
3F986	F-61U	115	24-27-30-33-36	3	13	26	2½	2 11/16	5.65	10.20	9.18	8.26	7.65	7.27	6.89
3F965	F-64U	115	7-8-9	7		5-6-7	2¼	2 3/16	3.5	7.50	6.75	6.08	5.63	5.34	5.06
3F990	F65U	110-120	0-140 150-160	.75	60	115	2½	2 13/16	5.8	11.19	10.07	9.06	8.39	7.97	7.55
3F987	F-67U	110-120	24-27-30-33-36	8	13	26	3	3 5/16	10¾	15.96	14.36	12.93	11.97	11.37	10.77
3F623	F-79U	115	24-26-28-30	15	11.4	22.8	3	4 9/16	18½	24.00	21.60	19.44	18.00	17.10	16.20
3F624	F-80U	115 tap.	18-18	20-20	—	13	4⅜	4½	25	45.00	40.50	36.45	33.75	32.06	30.38
3F625	F-84AC	230-115	12-12	10-10	—	8.5	3	3⅝	12.5	19.32	17.39	15.65	14.49	13.77	13.04



Case A

TYPE X LOW VOLTAGE RECTIFIER TRANSFORMERS—50-60 CYCLES

Stk. No.	Type	Pri.	Volts	Secondary Voltage	Secondary Current	Case Dim. H	Case Dim. W	Case Dim. D	Wt.	1-9	10-24	25-49	50-99	100-249	250-up
3F620	F-90X	115	Tapped	40CT-20CT-10	100 ma DC	1⅝	2 13/16	1⅝	¾	4.05	3.65	3.28	3.04	2.89	2.73
3F621	F-91X	115	Tapped	40CT-20CT-10	300 ma DC	2 9/32	3 11/16	2	1½	5.22	4.70	4.23	3.92	3.72	3.52
3F622	F-92A	115	Tapped	40CT-20CT-10	1 A DC	3 9/32	2 31/32	3	3¼	8.55	7.70	6.93	6.41	6.09	5.77

TYPE F FILAMENT TRANSFORMERS, SINGLE SECONDARY—Primary 115 volts, 60 cycles

No.	Type No.	Secondary Volts	Secondary Amperes	Test Volts	Mtg. Dim.-In. MW	Mtg. Dim.-In. MD	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-over
3F720	F-1X	2.5CT	3	1500	2⅜		.68	2.61	2.35	2.11	1.96	1.86	1.76
3F722	F-3X	2.5CT	10	3000	3⅛		1¾	4.02	3.62	3.26	3.02	2.86	2.71
3F723	F-5U	2.5CT	10	7500	2	1⅞	2.2	5.67	5.10	4.59	4.25	4.04	3.83
3F724	F-7X	5 CT	3	1500	2 13/16		1¼	3.57	3.21	2.89	2.68	2.54	2.41
3F958	F-13X	6.3	.6	1500	2		.37	2.10	1.89	1.70	1.58	1.50	1.42
3F959	F-14X	6.3CT	1.2	2500	2⅜		¾	2.22	2.00	1.80	1.67	1.58	1.50
3F960	F-16X	6.3CT	3	2500	2 13/16		1¼	3.33	3.00	2.70	2.50	2.37	2.25
3F961	F-18X	6.3CT	6	1500	3 9/16		2¼	4.80	4.32	3.89	3.60	3.42	3.24
3F775	F-18A	6.3CT	6	1500	2	1⅞	2½	6.15	5.54	4.98	4.61	4.38	4.15
3F776	F-21A	6.3CT	10	1500	2¼	2	3½	7.38	6.64	5.98	5.54	5.26	4.98
3F777	F-22A	6.3CT	20	2000	2½	3	7	10.56	9.50	8.55	7.92	7.52	7.13
3F778	F-25X	12.6CT	1.5	1500	2 13/16		1¼	3.57	3.21	2.89	2.68	2.54	2.41
3F996	F-26X	12.6CT	2.5	1500	3⅛		1.55	4.17	3.75	3.38	3.13	2.97	2.81
3F779	F-40X	26.8CT	1	1500	2 13/16		1¼	3.39	3.05	2.75	2.54	2.42	2.29
3F726	F-41X	25.2CT	2	1500	3 9/16		2¼	5.16	4.64	4.18	3.87	3.68	3.48
3F626	F-12X	5 CT	8	2500	3 9/16	—	2¼	4.80	4.32	3.89	3.60	3.42	3.24
3F628	F-15U	5 CT	15	3000	2¼	2⅛	4	7.41	6.67	6.00	5.56	5.28	5.00
3F629	F-20U	6.3/6CT	11	2500	2¼	2⅜	4	7.05	6.35	5.71	5.29	5.02	4.76
3F631	F-23U	7.5/6.3CT	25	3000	3	3 1/16	7½	14.88	13.39	12.05	11.16	10.60	10.04
3F632	F-29U	12/11/10CT	11	3000	2¾	2 9/16	6.5	9.99	8.99	8.09	7.49	7.12	6.74

NOTE: LAST
LETTER OF
MFGR. TYPE
NUMBER FOR
ITEMS ON
THIS PAGE
DENOTES
CASE STYLE

SWINGING FILTER REACTORS

Stk. No.	Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS	Mtg. Dim. MW	Mtg. Dim. MD	Wt. Lbs	1-4	5-24	25-49	50-99	100-249	250-Over
3F992	C-31A	25/5	20/200	150	2500	2¼	2⅜	4½	7.26	6.53	5.88	5.45	5.17	4.90

TRANSFORMERS

TYPE A LOW LEVEL OUTPUT TRANSFORMERS

These audio components are designed to fill demands in public address, amateur, and replacement equipment, and offer absolute maximum of performance possible in the size allowed. Mtg. Centers: Type A-51X, 1¾"; Type A-53X, 2⅜".

Stock No.	Type No.	Application	Freq. Resp.	Pri. Imp.	Sec. Imp.	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
3F782	A-51X	Tube to line	200-8000	7000	50	¼	1.92	1.73	1.56	1.44	1.37	1.30
3F783	A-53X	Single or p.p. tubes to line	70-10,000	18000 CT	600/250/50	½	2.82	2.54	2.28	2.12	2.01	1.90

TYPE N ISOLATION TRANSFORMERS—50/60 cycles

Stock No.	Type No.	V. A. Output	Input Volts	Output Volts	Mtg. Dim. MW	Mtg. Dim. MD	Wt. Lbs.	1-4	5-24	25-49	50-99	100-249	250-over
3F750	N-51X	35	115	115	3⅛	......	1¾	4.74	4.27	3.84	3.56	3.38	3.20
3F603	N-68X	50	230/115	115	3⅛	......	1¾	5.67	5.10	4.59	4.25	4.04	3.83
3F751	N-53M	85	115	115	2¼	2⅜	4½	10.41	9.37	8.43	7.81	7.42	7.03
3F604	N-54M	150	115	115	2½	3	7	12.30	11.07	9.96	9.23	8.76	8.30
3F605	N-67A	150	230/115	115	2½	3	7	12.36	11.12	10.01	9.27	8.81	8.34

FILAMENT TRANSFORMERS, MULTIPLE SECONDARY—Primary 115 Volts 60 Cycles

Designed for industrial and experimental applications. All units are "Climatite" treated, both coil and core, for moisture protection and elimination of lamination noise. All types are permanently marked with connection data and cased types are beautifully finished in grey baked enamel.

Stk. No.	Type No.	Secondary Volts and Amps.		Test V RMS	Mtg. Dim MW	Mtg. Dim MD	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-over
3F809	F-32A	6.3CT-3A	6.3CT-3A	1500	2	1⅞	2½	7.05	6.35	5.71	5.29	5.02	4.76
3F929	F-34A	6.3CT-1.75A 6.3V-1.75A	6.3V-1.75A 6.3V-1.75A	1500	2	2¼	3.3	9.00	8.10	7.29	6.75	6.41	6.08
3F780	F-36A	6.3CT-3.5A 6.3V-3.5A	6.3V-3.5A 6.3V-3.5A	1500	2½	2⅜	5	10.41	9.37	8.43	7.81	7.42	7.03
3F781	F-42A	12.6CT-2.5A 12.6-2.5A		1500	2¼	2	3.7	7.95	7.16	6.44	5.96	5.66	5.37

TYPE C SMOOTHING FILTER REACTORS

Stk. No.	Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS	Mtg. Dim. MW	Mtg. Dim. MD	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
3F753	C-30X	50	15	3500	1500	2		½	2.10	1.89	1.70	1.58	1.50	1.42
3F754	C-1X	15	20	1000	1000	1¾		¼	1.56	1.40	1.26	1.17	1.11	1.05
3F952	C-3X	10	50	500	1500	2⅜		¾	2.10	1.89	1.70	1.58	1.50	1.42
3F755	C-5X	12	75	390	1000	2 13/16		1	2.34	2.11	1.90	1.76	1.67	1.58
3F757	C-7X	10	90	270	1500	2 13/16		1¼	2.67	2.40	2.16	2.00	1.90	1.80
3F954	C-11X	6	110	160	1500	3⅛		1½	3.18	2.86	2.58	2.39	2.27	2.15
3F758	C-10X	9	125	250	1500	3⅛		1½	3.21	2.89	2.60	2.41	2.29	2.17
3F956	C-14X	6	200	150	1500	3 9/16		2¼	3.93	3.54	3.18	2.95	2.80	2.65
3F760	C-14A	6	200	150	1500	2	1⅞	2½	5.25	4.73	4.25	3.94	3.74	3.54
3F761	C-16A	10	200	150	2500	2¼	2⅜	4¼	7.08	6.37	5.73	5.31	5.04	4.78
3F762	C-15X	4	250	100	1500	3 9/16		2¼	3.93	3.54	3.18	2.95	2.80	2.65
3F764	C-20A	6	400	60	3000	3	3 5/16	10½	12.48	11.23	10.11	9.36	8.89	8.42
3F765	C-40X	.32	600	10	1500	2 13/16		1¼	2.67	2.40	2.16	2.00	1.90	1.80
3F734	C-47U	.3-.075	1A-2A	3-.75	1500	2¼	2¼	5	8.25	7.43	6.68	6.19	5.88	5.57
3F735	C-48U	.08-.02	2.5A-5A	.61-.155	1500	2½	3	6½	9.84	8.86	7.97	7.38	7.01	6.64

TYPE A INPUT TRANSFORMERS, Line or Microphone to Grid

Stk. No.	Type No.	Application	Freq. Resp.	Pri. Imp.	Turn Ratio	Mtg. Dim. MW	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-Up
3F766	A-1X	Line or sgle btn mike to grid.	100-15,000	100	31.4	1¾	¼	2.04	1.84	1.65	1.53	1.45	1.38
3F619	A-3X	Line or db mike to grid	200-10,000	400CT	22.1	1¾	¼	2.22	2.00	1.80	1.67	1.58	1.50
3F689	A-4X	Line to grid.	100-20,000	500/200 67.5CT	12	1¾	¼	2.67	2.40	2.16	2.00	1.90	1.80
3F690	A-5X	Sgle btn mike to pp grids-Hi-gain.	100-15,000	100	84	2⅜	½	2.97	2.67	2.41	2.23	2.12	2.00

TYPE A INTERSTAGE TRANSFORMERS, Plate to Grid

Stk. No.	Type No.	Application	Freq. Resp.	Pri. Imp.	Sec. Imp.	Ratio	Mtg. Dim. MW	1-9	10-24	25-49	50-99	100-249	250-up
3F771	A-31X	Plate to sgle or p.p. grids.	100-10,000	10000	90000	1:3	2	2.37	2.13	1.92	1.78	1.69	1.60

TYPE S STANDARD OUTPUT TRANSFORMERS

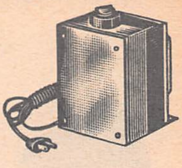
Stock No.	Type	Tubes Used	Primary Imped.	DC-Ma.	Audio Watts	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
3F1049	S-12X	25L6, 50L6, 35A5, 50B5. etc.,	2500	50	2-3	¼	1.65	1.49	1.34	1.24	1.18	1.11
3F1052	S-3X	6V6, 7C5, 6AQ5, 25A6, 71, etc.	5000	40	3-4	½	1.80	1.62	1.46	1.35	1.28	1.22
3F1056	S-5X	6V6, 7C5, 6AQ5, 25A6, 71, etc.	5000	50	5-8	1	2.46	2.21	1.99	1.85	1.75	1.66
3F1058	S-7X	6K6, 7B5, 6F6, 1Q5, 31, 33, 41, 42, etc.	7500	30	3-5	½	1.74	1.57	1.41	1.31	1.24	1.17
3F1066	S-15X	P.p.-6V6, 7C5, 6K6, 6F6, etc.	10,000 CT.	35	7-10	½	2.73	2.46	2.21	2.05	1.95	1.84
3F1067	S-19Z	P.p.-6V6, 7C5, 6K6, 6F6, etc.	10,000 CT.	50	10-14	1¼	3.54	3.19	2.87	2.66	2.52	2.39

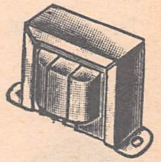
TYPE S UNIVERSAL OUTPUT TRANSFORMERS

Stock No.	Type	Application	Pri. DC Ma.	Audio Watts	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250 up
3F1069	S-51-X	Single or p.p. plates to V.C.	35	5	½	2.67	2.40	2.16	2.00	1.90	1.80

TYPE M MODULATION TRANSFORMERS

Stock No.	Type No.	Primary	Freq. Resp.	Secondary Imped.	Secondary Ma.	Audio Watts	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
3F1045	M-4Z	5000 (Autoformer)	300-3000	6750 4	100 (tot.)	10	¾	3.09	2.78	2.50	2.32	2.20	2.09
3F1046	M-1X	10,000 CT.	300-3000	5000-8000-10,000	50	5	¼	2.97	2.67	2.41	2.23	2.12	2.00
3F1047	M-3X	10,000 CT.	300-3000	3000-5000-8000	100	20	1½	4.95	4.46	4.01	3.71	3.53	3.34


Case M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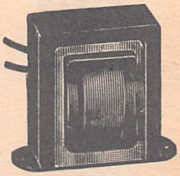
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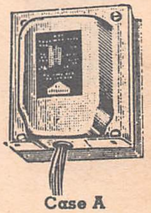
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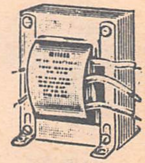

Case U

NOTE: Last letter of Manufacturer Type Number for Items on This Page Denotes Case Style

MIL-T-27A HERMETICALLY SEALED TRANSFORMERS AND CHOKES

Meets all requirements for the appropriate class of MIL-T-27A specs. Ideal for research work.

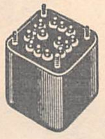
Type PHC, PHR

TYPE PHC POWER TRANSFORMERS FOR CAPACITOR INPUT SYSTEMS

117 volt, 50-60 cycle primaries. Tested at twice the rated AC voltage and frequency.

Stock No.	Mfr's No.	Sec.		Rect.		Fil.		Wt.					100-
		VCT	Ma	V	A	V	A	Lbs.	1-9	10-24	25-49	50-99	249
4F316	PHC-40	450	40	5	2	6.3CT	2	3¼	18.00	16.85	15.09	13.48	12.64
4F314	PHC-10	500	10	....	....	6.3 6.3	0.6 1.2	2	16.57	15.50	13.88	12.40	11.63
4F315	PHC-20	500	20	....	....	6.3 6.3	0.6 1.2	2	15.73	14.71	13.18	11.77	11.04
4F320	PHC-55	540	55	5	2	6.3CT	2	3½	19.06	17.83	15.97	14.27	13.38
4F317	PHC-60	600	60	5	2	6.3CT	3	4½	19.55	18.28	16.37	14.63	13.71
4F322	PHC-85	660	85	5	2	6.3CT	3	6	21.72	20.32	18.19	16.25	15.24
4F321	PHC-70	670	70	5	2	6.3CT	3	4½	20.32	19.00	17.01	15.20	14.25
4F323	PHC-105	690	105	5	2	6.3CT	3.5	6½	23.95	22.39	20.06	17.92	16.80
4F325	PHC-150	740	150	5	3	6.3CT	4.5	12	29.52	28.07	25.13	22.45	21.05
4F324	PHC-120	750	120	5	3	6.3CT	4	9½	24.76	23.16	20.75	18.53	17.38
4F351	PHC-165	880	165	5	3	*6.3	7.5	12	36.58	34.22	30.64	27.37	25.66

*Has 3 more Fil. wdg.: 6.3V at 3,3,0.6



Type FMS

TYPE PHR AND PMS POWER TRANSFORMERS FOR CHOKE INPUT SYSTEMS

Type PHR is for 117 volt, 50-60 cycle primary power supply. Type PMS is for 105, 115, 125 volt; 54-66 cycle primary power supply and 10,000 feet maximum operating altitude.

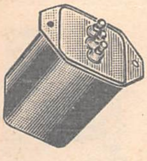
Stock No.	Type	Sec.				Fil.		Wt.					100-
		VCT	MA	V	A	V	A	Lbs.	1-9	10-24	25-49	50-99	249
4F340	PHR-55	700	55	5	2	6.3CT	2	3¼	19.25	18.00	16.12	14.40	13.50
4F341	PHR-70	850	70	5	2	6.3CT	3	4½	19.88	18.60	16.66	14.88	13.95
4F343	PHR-105	900	105	5	2	6.3CT	3.5	6½	22.70	21.23	19.01	16.99	15.93
4F344	PHR-120	1000	120	5	3	6.3CT	4	9½	23.27	21.77	19.49	17.41	16.33
4F160	PMS-70	400- 200CT	70		2	6.3	3	4	29.31	22.83	20.45	18.27	17.13
4F161	PMS-70A	650CT	70	6.3/5	2	6.3	4	5	23.91	22.37	20.03	17.89	16.78
4F162	PMS-150	650CT	150	6.3	5	5	3	7¼	25.85	24.18	21.66	19.35	18.14
4F163	PMS-175	800CT	175	5	3	6.3	8	10	30.93	28.93	25.91	23.15	21.70
4F157	PMS-350	700CT	250	....	....	....	....	7½	22.54	21.08	18.88	16.87	15.81
4F158	PMS-550	1100CT	250	....	....	....	....	11	27.98	26.17	23.43	20.93	19.63

Type FH

TYPE FMS AND FH FILAMENT TRANSFORMERS

Meet same specifications and quality requirements as the power transformers above. For 115-230 volts AC. †2 secondaries .

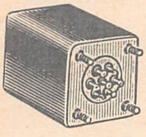
Stock No.	Mfr's. Type	Sec.		Insul.	Wt.					100-
		Volts	Amps.	Volts RMS	Lbs.	1-9	10-24	25-49	50-99	249
4F216	FMS-210	2.5	10	2,500	2½	14.92	13.95	12.49	11.16	10.46
4F357	FMS-53	5.0	3	2,500	1¾	13.09	12.25	10.97	9.80	9.19
*4F165	FMS-62	6.3	2.0	2,500	1¾	13.44	12.57	11.25	10.05	9.43
4F374	FMS-6	6.3CT	3	2,500	4	19.28	18.03	16.15	14.43	13.53
4F166	FMS-65	6.3	5	2,500	2¾	15.29	14.30	12.81	11.44	10.73
*4F375	FMS-7†	6.3CT	6	2,500	6½	25.52	23.91	21.42	19.13	17.94
4F167	FMS-610	6.3	10	2,500	5	18.92	17.70	15.85	14.16	13.28
4F168	FMS-620	6.3	20	2,500	8	23.17	21.67	19.40	17.33	16.25
4F379	FH-25	2.5CT	5.25	3,500	2	15.07	14.10	12.63	11.28	10.58
4F389	FH-63	6.3CT	3	2,500	2	13.90	13.00	11.64	10.40	9.75
4F396	FH-65	6.3CT	5.5	2,500	3	15.38	14.38	12.88	11.51	10.79
4F397	FH-610	6.3CT	10	2,500	5	16.84	15.75	14.10	12.60	11.82
4F386	FH-520HB	5.0CT	20	10,000	13	35.39	33.10	29.64	26.48	24.83
4F382	FH-210	2.5CT	10	5,000	3	16.18	15.14	13.55	12.11	11.35
4F383	FH-210H	2.5CT	10	9,000	4	26.37	24.66	22.09	19.73	18.50



Type RH

TYPE RH FILTER REACTORS

Stk. No.	Type	Hys.	Ma.	Ohms	Volts	Lbs.	1-9	10-24	25-49	50-99	100-249
4F360	RH-1540	15	40	475	2,500	1½	8.60	8.05	7.21	6.44	6.04
4F361	RH-1055	10	55	230	2,500	1¾	8.57	8.02	7.18	6.41	6.01
4F362	RH-1555	15	55	420	2,500	2	8.64	8.08	7.24	6.47	6.06
4F363	RH-1085	10	85	175	2,500	2½	9.41	8.80	7.88	7.04	6.60
4F364	RH-1585	15	85	285	2,500	2¾	9.56	8.95	8.01	7.16	6.71
4F365	RH-8105	8	105	100	2,500	3¾	11.65	10.90	9.76	8.72	8.18
4F366	RH-12150	12	150	150	2,500	5½	13.22	12.37	11.07	9.89	9.28
4F369	RH-8200	8	200	85	2,500	7	15.14	14.17	12.69	11.33	10.63
4F370	RH-12200	12	200	140	2,500	7	15.29	14.30	12.81	11.44	10.73
4F372	RH-8250	8	250	90	2,500	10½	17.42	16.30	14.60	13.04	12.23
4F371	RH-8300	8	300	60	3,500	12½	22.00	20.58	18.43	16.47	15.44

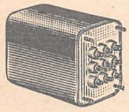


Type AMS

TYPE AMS—MS AUDIO TRANSFORMERS

Max. Operating altitude is 50,000 Ft. Frequency response: ±1 db. 300-10,000 cps. Dimensions: 1⅝x1⅝x2⅜" Max. Weight: .6 lbs.

Stk. No.	Type	Application	Impedance	Op. Level	Pri. DCMA	1-9	10-24	25-49	50-99	100-249
4F134	AMS-2	Line to Voice Coil	Pri: 600 Ohms CT 150 Ohms Sec: 4/8/16 Ohms	2W	......	15.73	14.70	13.15	11.75	11.00
4F140	AMS-4	Line to Line	Pri: 600 Ohms CT 150 Ohms Sec: 600 Ohms CT 150 Ohms	15 dbm	......	17.86	16.70	14.96	13.36	12.53
4F137	AMS-6	Single Plate to Voice Coil	Pri: 7600/4800 Ohms Sec: 4/8/16 Ohms	2w	40	12.46	11.65	10.43	9.32	8.74



Type BIH

TYPE BIH—INPUT TRANSFORMERS

All have +15 dbm operation levels and −70 dbr hum reduction. * have split and balanced windings.

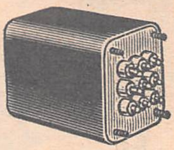
Stock No.	Type	Application	Impedance/Ohms	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
4F304	BIH-1	Line/Single or PP Grids	*Pri: 600/150 CT *Sec: 50,000 CT	1½	27.98	26.17	23.43	20.93	19.63
4F305	BIH-4	Line to Line	Pri: 600/150 CT Sec: 600/150 CT	1½	28.22	26.40	23.64	21.12	19.80
4F306	BIH-8	Single Plate to PP Grids	Pri: 10,000 *Sec: 50,000 CT	1½	24.15	22.58	20.22	18.07	16.94

MIL-T-27A HERMETICALLY SEALED TRANSFORMERS (Continued)

TYPE CIH—COMMUNICATIONS RANGE INPUT TRANSFORMERS

Maximum operating altitude is 10,000 feet with a frequency of ±1 db. 200 to 3500 cycles. Case is 2¼x 2⅒x2⅔".

Stock No.	Type	Application	Impedance/Ohms	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
4F407	CIH-2	Low Level SB or DB Mic./Sgl. or PP Grids	Pri: 125/50, 80ma. Sec: 125000CT	¾	11.22	10.50	9.40	8.40	7.88



Type CIH
Type COH
Type BOH
Type IBH

TYPE COH—OUTPUT TRANSFORMERS

Single plate to line or voice coil. Typical output tubes are Sgl. 6L6, 6V6 or 25A6. Maximum DC in primary is 55 ma. with the power level at 5 watts.

Stock No.	Type	Impedances/Ohms	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
4F408	COH-1	Pri: 5000 Sec: 600/150/16/8/4	2¼	14.63	13.68	12.25	10.95	10.26

TYPE BOH—WIDE RANGE OUTPUT TRANSFORMERS

Max. operating altitude is 10,000 feet. Frequency response is 1 db. 30-15000 cycles. Primary has 0.10 ma. DC and both have split and balanced windings.

Stock No.	Type	Application	Impedance/Ohms	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
4F409	BOH-2	Push-Pull Plates/Line	Pri: 20000CT Sec: 600/150CT	2¼	18.99	17.77	15.91	14.21	13.33

TYPE 1BH—BIAS TRANSFORMERS

Combination plate and filament supply. Primary volts: 115, 50/60 cycles. Dimensions: 3¼"x3x4¼". Weight: 5 lbs.

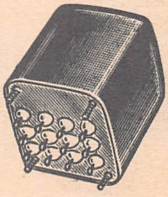
Stock No	Type	High Volt Sec.								
		AC-V	DC-Ma.	Rec. V	Fil. A	1-9	10-24	25-49	50-99	100-249
4F410	1BH-150	360-320-270 240CT	150	5.0	3	22.29	20.80	18.60	16.65	15.60

Type UME

ULTRA MINIATURE ENCAPSULED TRANSISTOR TRANSFORMERS AND CHOKE

Dimensions: .312x.400x.426 inches. Approximate weight: .125 oz.

Stock No.	Type	Application	Pri. Res.	Pri. Imp. in Ohms	DC MA in Pri.	Sec. Imp. in Ohms	Sec. Res.	MW Level	1-9	10-24	25-49	50-99	100-249
4F411	UME-20	driver	1000	10,000 12,500	1	1200CT 1500CT	100	100	6.54	6.12	5.48	4.89	4.59
4F412	UME-21	driver	1100	10,000 12,500	1	2000CT 2500CT	160	100	6.54	6.12	5.48	4.89	4.59
4F413	UME-37	reactor	190	1 hy@2MADC	2	....	......	......	5.14	4.82	4.31	3.85	3.61



Type 4PMS

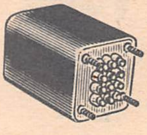
MILITARY STANDARD 400-CYCLE TRANSFORMERS

Built to fulfill MIL-T-27A, Grade 4, Class S operating temperature and life expectancy X (10,000 hrs. min.). Maximum operating altitude 70,000 feet. One-piece drawn-steel cases.

TYPE 4PMS POWER TRANSFORMERS

Case Dimensions 3 15/16x3⅜x5¼". Primary: 105/115/125 V., 380-1000 cycles.

Stock No.	Type No.	High Voltage Secondary		Rect. Fil.		Other Filaments		Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
		av. VAC	DC Ma.	V	A	V	Amps.						
4F219	4PMS-300	550-370-75-0 75-370-550	300	5	6	6.3 CT 6.3 CT	5 1	7½	76.93	72.00	64.50	57.75	54.00



Type 4PHC

MILITARY STANDARD 400-CYCLE TRANSFORMERS

Built in accordance with MIL-T-27A, Grade 4, Class S operating temperature and life expectancy. Altitude: 10,000 ft. Seamless drawn steel cases and one-piece base covers with deep seal soldering.

Fig. A. POWER TRANSFORMERS

All primaries 105/115/125 volt, 380-1000 cycles. High temperature operation, 85°C. ambient, 40°C. rise.

Stock No.	Mfr. Type	Plate		Rect.		Fil.		Wt. Lbs.	WxHxD	1-9	10-24	25-49	50-99	100-249
		VCT	MA	V	A	VCT	A							
4F169	4PHC-55	540	55	5	2	6.3	2	1½	2.241x2.101x2.930	22.54	21.10	18.90	16.85	15.80
4F170	4PHC-70	670	70	5	2	6.3	3	1¾	2.241x2.101x2.930	26.31	24.60	22.00	19.70	18.45
4F171	4PHC-120	750	120	5	3	6.3	4	2½	2.861x2.711x3.742	32.24	30.10	27.00	24.10	22.60
4F268	4PHC-165	880	165	5	3	6.3 6.3 6.3 6.3	7.5 3.0 3.0 0.6	6	3.667x3.292x4.305	54.39	51.00	45.65	40.80	38.20

Type 4FH

4FH FILAMENT TRANSFORMERS

For 105-125v, 380-1,000 cps. Insul. break down volts, 2,500.

Stock No.	Mfr's. Type	Sec. Volts	Sec. Amps.	Case Dimensions	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
4F177	4FH-63	6.3 CT	3.0	1⅞x1¾x2 3/16"	¾	15.63	14.60	13.10	11.70	10.95
4F178	4FH-65	6.3 CT	5.5	1⅞x1¾x2 7/16"	1	17.07	15.95	14.30	12.75	12.00
4F179	4FH-610	6.3 CT	10.0	2¼x2⅛x2 15/16"	1¾	18.96	17.75	15.90	14.20	13.30
4F180	4FH-620	6.3 CT	20	1⅘x1⅔x3⅓"	2½	23.81	22.30	20.00	17.80	16.70
4F198	4FMS-63	6.3 CT	3	1 15/16x1 13/16x2 7/16"	1	18.23	17.00	15.25	13.65	12.75
4F199	4FMS-65	6.3 CT	5.5	1 15/16x1 13/16x2¾"	1¼	18.96	18.20	16.30	14.60	13.65
4F218	4FMS-620	6.3 CT	20	2 5/16x2 1/16x3⅛"	2	25.68	24.00	21.50	19.20	18.00

Type RH

FILTER REACTORS

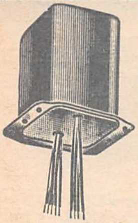
Have an inductance of 2.0 henries. Insul. break down volts, 2,500. For 105-125v, 380-1,000 cps.

Stock No.	Mfr. Type	DC Ma.	DC Res. Ohms	Case Dimensions	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
4F173	4RH-255	55	160	1 3/16x1 3/16x2"	¼	6.91	6.48	5.80	5.18	4.85
4F175	4RH-2120	120	100	1⅞x1¾x2 7/16"	1	8.23	7.70	6.90	6.18	5.77
4F220	4RH-2165	165	90	1 9/10x1⅘x2⅖"	1½	8.25	7.72	6.92	6.20	5.80
4F176	4RH-2300	300	47	2⅞x2 11/16x3½"	3¼	11.81	11.30	10.15	9.05	8.50
4F174	4RH-270	70	165	1⅜x1⅜x2"	½	6.96	6.50	5.83	5.20	4.77

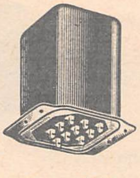
LET NEWARK SUPPLY ALL YOUR ELECTRONIC NEEDS. JUST WRITE US YOUR REQUIREMENTS.

CHICAGO TRANSFORMERS

"SEALED-IN-STEEL" TRANSFORMERS



Type PCC
Type PCR



Type PSR
Type PSC

POWER TRANSFORMERS

Shielded against magnetic and electrostatic fields by one piece drawn steel cases. Vac. impreg. coils, compound filled under heat and pressure to resist moisture. Cores are high grade, non-aging, silicon steel. All transformers are guaranteed to operate at rated values with RTMA heat rise standards. For operation from 110-120v, 50-60 cps. AC. Types PCC-250 and PSC-250 have 2nd. fil. 5V/2 amps. *2nd. fil. 6.3V CT at 1 amp. **Provides 550-370-75-0-75-370-550v at 300 Ma. DC.

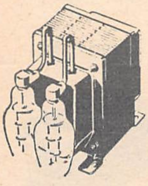
Case	WxHxD	Case	WxHxD
F4	1½x2⅛x1½"	F11	4⅛x5 5/16x4 9/16"
F6	2⅛x2 11/16x2¼"	F12	4 13/16x6 1/16x5 5/16"
F7	2⅜x3 1/16x2½"	F13	5¼x7 1/16x6⅛"
F7D	2⅜x3 5/16x2½"	S6D	2⅛x2 15/16x2¼"
F8	2 11/16x3½x2⅞"	S7	2⅜x3 1/16x2½"
F8D	2 11/16x3¾x2⅞"	S8	2 11/16x3½x2⅞"
F9	3x4x3¼"	S9	3x3⅞x3¼"
F9D	3x4¼x3¼"	S10	3 5/16x4 5/16x3 11/16"
F10	3 5/16x4 7/16x3 11/16	S10D	3 5/16x4 11/16x3 11/16"
F10D	3 5/16x4 11/16x3 11/16"	C24	4 13/16x5⅞x5 5/16"

CONDENSER INPUT POWER TYPES

Stock No.	Mfr. Type	Description	AC VCT	AC Ma.	Rect. V	Rect. A	Fil. VCT	Fil. A	Wt. Lbs.	Case	1-9	10-24	25-49	50-99	100-249
4F001	PCC-40	Wire Leads	450	40	5	2	6.3	2	3¼	F8	**9.54**	**8.92**	**7.99**	**7.13**	**6.69**
4F021	PSC-40	Solder Lugs	450	40	5	2	6.3	2	3¼	F8	**14.50**	**13.57**	**12.55**	**11.21**	**10.51**
4F002	PCC-55	Wire Leads	540	55	5	2	6.3	2	3½	F8	**10.21**	**9.55**	**8.55**	**7.64**	**7.16**
4F003	PCC-60	Wire Leads	600	60	5	2	6.3	3	4½	F9	**11.39**	**10.65**	**9.54**	**8.52**	**7.99**
4F004	PCC-70	Wire Leads	670	70	5	2	6.3	3	4½	F9	**11.76**	**11.00**	**9.85**	**8.80**	**8.25**
4F024	PSC-70	Solder Lugs	670	70	5	2	6.3	3	4½	F9	**16.82**	**15.73**	**14.09**	**12.59**	**11.80**
4F005	PCC-85	Wire Leads	660	85	5	2	6.3	3	6	F10	**12.76**	**11.94**	**10.69**	**9.55**	**8.95**
4F006	PCC-105	Wire Leads	690	105	5	2	6.3	3.5	6½	F10	**13.26**	**12.40**	**11.10**	**9.92**	**9.30**
4F007	PCC-120	Wire Leads	750	120	5	3	6.3	4	9½	F11	**15.73**	**14.71**	**13.18**	**11.77**	**11.04**
4F008	PCC-150	Wire Leads	740	150	5	3	6.3*	4	11½	F11	**20.12**	**18.82**	**16.85**	**15.05**	**14.11**
4F029	PSC-200	Solder Lugs	770	200	5	3	6.3*	4.5	12	F11	**26.72**	**25.00**	**22.39**	**20.00**	**18.75**
4F035	PSC-205	Solder Lugs	900	200	5	2	6.3/6.3	4	12	C24	**31.20**	**29.19**	**26.13**	**23.35**	**21.89**
4F030	PSC-250	Solder Lugs	800	250	5	6	6.3	7	15	C24	**36.33**	**33.99**	**30.43**	**27.19**	**25.49**
4F010	PCC-250	Wire Leads	800/160	250	5	6	6.3	7	15	C24	**25.44**	**23.62**	**21.15**	**18.89**	**17.71**

CHOKE INPUT POWER TYPES

Stock No.	Mfr. Type	Description	AC VCT	AC Ma.	Rect. V	Rect. A	Fil. VCT	Fil. A	Wt. Lbs.	Case	1-9	10-24	25-49	50-99	100-249
4F061	PSR-55	Solder Lugs	700	55	5	2	6.3	2	3¼	F8D	**15.77**	**14.75**	**13.21**	**11.80**	**11.06**
4F041	PCR-55	Wire Leads	700	55	5	2	6.3	2	3¼	F8D	**11.02**	**10.30**	**9.22**	**8.24**	**7.73**
4F044	PCR-105	Wire Leads	900	105	5	2	6.3	3.5	6½	F10D	**13.37**	**12.50**	**11.19**	**10.00**	**9.38**
4F064	PSR-105	Solder Lugs	900	105	5	2	6.3	3.5	6½	F10D	**18.53**	**17.34**	**15.52**	**13.87**	**13.00**
4F068	PSR-300	Solder Lugs	**	300	5	6	6.3*	5	17½	F12	**38.24**	**35.76**	**32.03**	**28.61**	**26.83**
4F063	PSR-85	Solder Lugs	880	85	5	2	6.3	3	6	F10	**18.97**	**17.74**	**15.90**	**14.20**	**13.31**
4F065	PSR-120	Solder Lugs	1000	120	5	3	6.3	4	9½	F11	**23.24**	**21.73**	**19.46**	**17.39**	**16.30**
4F066	PSR-150	Solder Lugs	1020	150	5	3	6.3*	4	11½	F11	**29.10**	**27.21**	**24.37**	**21.77**	**20.41**
4F067	PSR-200	Solder Lugs	1040	200	5	3	6.3*	4.5	12¼	F11	**30.75**	**28.77**	**25.76**	**23.01**	**21.58**



Type PT

PLATE TRANSFORMERS

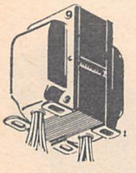
DC output rated at load terminals of single section reactor-input filter with full mercury vapor rectification. Primary is 117 AC volts. Shipping wt., 13 lbs. 4x5⅓x4¾".

Stock No.	Type	Sec. ACV	DCV	DCMA CCS	DCMA ICAS	1-9	10-24	25-49	50-99	100-249
4F403	PT-8311	2400CT	1000	225	280	**16.40**	**15.33**	**13.73**	**12.27**	**11.50**

PLATE TRANSFORMERS

DC output rated at load terminals of single section reactor input filter, ICAS with single section capacitor input filter. All primary are 117V AC. *Capacitor input rating is for intermittent duty.

Stock No.	Type	Sec. ACV	DC Output V	DC Output MA	Type Filter	Size	Shpg. Wt.	1-9	10-24	25-49	50-99	100-249
4F404	PC-8301	430CT	300 425	200 160	Reactor Input *Capacitor Input	3¼x3⅞x4	4.8	**7.73**	**7.23**	**6.48**	**5.79**	**5.43**
4F405	PC-8304	1500CT	600 850	265 200	Reactor Input *Capacitor Input	4x4⅞x4¾	11.5	**14.46**	**13.53**	**12.12**	**10.83**	**10.15**
4F406	PC-8305	1840CT	750 1000	250 200	Reactor Input *Capacitor Input	4¾x4x5	11.9	**15.05**	**14.08**	**12.61**	**11.27**	**10.56**



Type PC

BIAS TRANSFORMERS

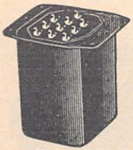
Combination plate and filament supply. Primary is 115 V, 50/60 cycles. Secondary AC voltage is ±3%.

Stock No.	Type	Description	Secondary ACVCT	Secondary DC-Ma.	Rect. V	Rect. A	Wt. Lbs.	Case	1-9	10-24	25-49	50-99	100-249
4F050	2BC-150	Wire Leads	360-320-280-240	150	5	3	5	F9	**13.18**	**12.35**	**11.05**	**9.90**	**9.30**

FILAMENT TRANSFORMERS

Primaries: 115/230 volts, 50-60 cycles.

Stk. No.	Cat. No.	Secondary Volts	Secondary Amps.	Insulation Volts RMS	WxDxH	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
4F082	F-210	2.5CT	10	5000	2⅞x2 11/16x3¾"	3	**10.43**	**9.75**	**8.73**	**7.80**	**7.31**
4F085	F-54	5.0CT	4	2500	2½x2⅜x3 5/16"	2¼	**6.97**	**6.52**	**5.84**	**5.21**	**4.89**
4F089	F-520HB	5.0CT	20	10000	4 9/16x4⅛x5 5/16"	13	**18.12**	**16.95**	**15.18**	**13.56**	**12.71**
4F097	F-615	6.3CT	1.5	25000	2¼x2⅛x2 11/16"	1	**11.48**	**10.73**	**9.61**	**8.59**	**8.05**
4F296	F-725	7.5CT	25	2500	4 9/16x4⅛x5 5/16"	12	**25.92**	**24.25**	**21.72**	**19.40**	**18.19**

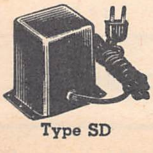


Type F

MULTIPLE FILAMENT TRANSFORMER

All Primaries 105/115/125 Volts, 50-60 Cycles

Stk. No.	Type	Sec. No. 1	Sec. No. 2	Insul. Test	LxWxH	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249
4F279	F-7	6.3V CT 6A ——12.6V CT 6A——	6.3V CT 6A	2500V	3 11/16x3 5/16x4 11/16"	6½	**19.95**	**18.68**	**16.72**	**14.93**	**14.00**



Type SD

STEP-DOWN TRANSFORMERS

For operating 117 volt equipment from 220 volts, 50-60 cycles AC for source, "Sealed in Steel" corrosion-proof. With 8 ft. cord, plug, standard receptacle on case.

Stk No.	Type	Watts	Lbs.	Size	Case	1-9	10-24	25-49	50-99	100-249
4F141	SD-50	50	2¾	2 11/16x3½x2⅞"	F8	**5.84**	**5.47**	**4.90**	**4.37**	**4.10**
4F142	SD-100	100	4¼	3 5/16x4 7/16x3 11/16"	F10	**7.32**	**6.85**	**6.13**	**5.48**	**5.14**
4F143	SD-150	150	7	4⅛x5 5/16x4 9/16"	F11	**9.28**	**8.68**	**7.78**	**6.95**	**6.51**
4F144	SD-250	250	8¾	4⅛x5 5/16x4 9/16"	F11	**11.02**	**10.30**	**9.22**	**8.24**	**7.73**
4F145	SD-500	500	14½	4 13/16x6 1/16x5 5/16"	F12	**16.62**	**15.55**	**13.93**	**12.44**	**11.66**
4F146	SD-1000	1000	22½	5¼x7 1/16x6⅛"	F13	**23.61**	**22.08**	**19.78**	**17.67**	**16.56**

TRANSFORMERS AND CHOKES

CHICAGO

CONDUIT BOX MOUNTED STEP DOWN TRANSFORMERS

Stock No.	Mfr. Type	Description	Primary		Secondary			Wt. Lbs.	Case	1-9	10-24	25-49	50-99	100-249
			V.	CPS	V.	Amps	VA							
4F012	PCC-24100	Wire Leads	230/460	50/60	115	.85	100	5¼	C24	11.13	10.42	9.33	8.33	7.81
4F013	PCC-24150	Wire Leads	230/460	50/60	115	1.5	150	7¾	C24	14.87	13.92	12.46	11.13	10.44
4F014	PCC-24250	Wire Leads	230/460	50/60	115	2.2	250	11½	C24	22.78	21.30	19.07	17.04	15.98

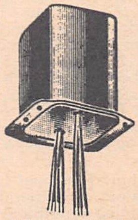
FILTER CHOKES

Stock No.	Mfr. Type	Description	Hy.	Ma.	Ohm	Wt.	Case	1-9	10-24	25-49	50-99	100-249
4F101	RC-1540	Wire Leads	15	40	475	1½	F6	5.05	4.72	4.22	3.77	3.54
4F103	RC-1555	Wire Leads	15	55	420	2	F6	5.77	5.40	4.84	4.32	4.05
4F104	RC-1085	Wire Leads	10	85	175	2½	F7	6.04	5.65	5.06	4.52	4.24
4F414	RS-1085	Solder Lugs	10	85	175	2½	F7	8.12	7.60	6.81	6.08	5.70
4F105	RC-1585	Wire Leads	10	85	285	3	F7	6.64	6.22	5.57	4.97	4.66
4F106	RC-8105	Wire Leads	8	105	100	4	F8	7.82	7.32	6.55	5.85	5.49
4F108	RC-8150	Wire Leads	8	150	100	5¼	F9	9.39	8.79	7.87	7.03	6.59
4F111	RC-12200	Wire Leads	10	200	140	7	F10	10.89	10.18	9.12	8.15	7.64
4F122	RS-1055	Solder Lugs	12	55	230	2	F6	7.31	6.85	6.13	5.48	5.14
4F112	RC-8250	Wire Leads	8	250	90	10½	F11	13.72	12.84	11.49	10.27	9.63
4F123	RS-1555	Solder Lugs	15	55	420	2	F6	7.38	6.90	6.18	5.52	5.18
4F121	RS-1540	Solder Lugs	15	40	475	1½	F6	7.08	6.61	5.93	5.29	4.96
4F127	RS-12105	Solder Lugs	12	105	170	4	F8D	10.17	9.51	8.52	7.61	7.14
4F415	RC-12105	Wire Leads	12	105	170	4	F8D	10.17	9.52	8.52	7.61	7.14
4F416	RC-12150	Wire Leads	12	150	150	5½	F9D	8.93	8.35	7.48	6.68	6.26
4F129	RS-12150	Solder Lugs	12	150	150	5½	F9D	11.46	10.71	9.60	8.57	8.04
4F131	RS-12200	Solder Lugs	12	200	140	7	F10D	13.44	12.57	11.25	10.05	9.43
4F130	RS-8200	Solder Lugs	8	200	85	7	F10D	8.34	7.80	6.99	6.24	5.85

PUBLIC ADDRESS RANGE DRIVER TRANSFORMERS

Frequency: Response, ±½ db.—50 to 10000 cycles. Dimensions: 2½x3x3¹⁄₁₆". Weight 2¼ lbs.

Stock No.	Type	Pri. Imp.	Max. DC in Pri.	Ratio Pri./½ Sec.	1-9	10-24	25-49	50-99	100-249
4F417	PCD-25	20K Ohm CT	25 Ma.	3:1	7.66	7.17	6.42	5.73	5.38



Type PCC Type RC Type PCP

TYPE COS OUTPUT TRANSFORMERS

Single plate to line or voice coil. Dimensions 2½x2⅛x3¹⁄₁₆". Weight: 2¼ lbs.

Stock No.	Type	Imp. Ohms Pri.-Sec.	Max. DC in Pri.	Power Level	1-9	10-24	25-49	50-99	100-249
4F418	COS-2	Pri: 8000 Sec: 600/150/16/8/4	55ma.	5 w.	12.03	11.25	10.07	9.00	8.44

TYPE WF FULL FREQUENCY RANGE AUDIO TRANSFORMER

Frequency response is ±2 db. 30 to 20000 cycles. Maximum operating level: +7 db. Low level output. Must use shunt plate feed to keep DC out of primary winding. Dimensions: 1½x1½x2". Weight: .6 lbs.

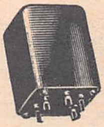
Stock No.	Type	Application	Pri. Imp./Ohms	Sec. Imp./Ohms	1-9	10-24	25-49	50-99	100-249
4F419	WF-36	P.P. Low Level Plates to Line	30000 Plate to Plate	50, 125/150, 200 250, 333, 500/600	12.83	12.00	10.75	9.60	9.00

Type RS Type COS

TYPE TT "TINYTRAN" MINIATURE AUDIOS

Exceptional frequency response for transformer of this size: 1 db, 30-15,000 cps. Maximum level 0 db. Nickel steel laminations and has clearly marked stud-type terminals. Cased and potted anodized aluminum can with phenolic terminal boards. This case has two 2-56 threaded inserts for easy mounting. Size: ⅞" square and 1¼" high. The entire transformer weighs only 1.3 oz. *No DC in primary. †Secondary impedance: 50,000. §Secondary impedance: 60,000.

Stock No.	Mfr's. Type	Application	Primary Impedance	1-9	10-24	25-49	50-99	100-249
4F420	TT-11	Mic. Line/single grid†	50, 200/250,	12.92	12.08	10.82	9.67	9.06
4F421	TT-12	Mic. Line/push-pull grid†	500/600	13.72	12.83	11.49	10.77	9.63
4F184	TT-14*	Single plate/single grid§	15,000	7.73	7.23	6.48	5.79	5.43



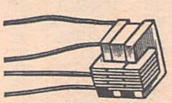
Series WF

Type TT

ULTRA MINIATURE TRANSISTOR TRANSFORMERS

Designed primarily for transistor audio application but can be used wherever low power is involved. Useful range, below 1 mw level. Constructed of fine wire, wound in nylon bobbins with special nickel alloy steel laminations. Dimensions: ⅜x⅜x⅜".

Stock No.	Type	Application	Pri. Imp.	Sec. Imp.	Pri. DC Res.	Sec. DC Res.	Wt. oz.	1-9	10-24	25-49	50-99	100-249
4F422	UM-111	output or matching	1,000	50/60	120	9.0	.10	4.16	3.90	3.49	3.12	2.93



UM Series

- **NEWARK KEEPS PACE** with current dynamic progress in research and development and leads in procuring and supplying the product you need.
- **NEWARK SERVICE** is the swiftest, most efficient in the industry. It cuts your lead time to the absolute minimum.
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- **PHONE, WRITE, WIRE** for the electronics equipment you need.

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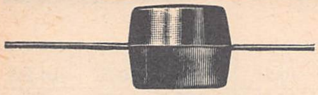
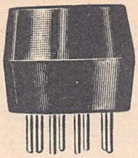
TECHNITROL PULSE TRANSFORMERS

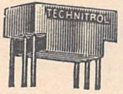
WRITE FOR PRICES
ON ITEMS NOT LISTED


Type TE

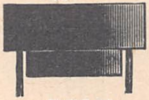
Type MP


Type TP

Type AME



TYPE H


TYPE G

TECHNITROL LOW POWER PULSE TRANSFORMERS

Pulse transformers are specifically designed to accommodate wide range voltage and frequency changes without producing distortion in the wave form. High permeability cover and insulation withstanding temperatures from —55°C. to +105°C. meet all requirements of MIL-T-27A to insure dependable reliability in both Series T and Series M. A number of assembly techniques are available: conventional wiring, printed circuit-dip soldering assembly, or completely automatic assembly and wiring. Pig-tail leads.

SERIES T

Designed for blocking oscillator and interstage coupling applications. Pulse duration 0.1 to 25µ sec. Pulse repetition rate up to 10 mc. The test voltage rating is 500 volts rms. Wound with one or two secondaries, either inverting or non-inverting. Case is epoxy resin; shipping weight: 1 ounce.

Series T, Type TE. Electrical characteristics are the same as the above, with pig-tail leads. Size: $1\frac{1}{16}$x$\frac{3}{4}$x$\frac{19}{32}$''. Leads are two inches minimum.

Series T, Type TP. 7-pin printed circuit leads, ¼" long. Overall size: $1\frac{1}{16}$x$\frac{3}{4}$x$\frac{19}{32}$''. The electrical characteristics are the same as listed above.

SERIES M

Engineered for use in sub-miniature applications, particularly transistors. Specifications include: pulse width from 0.05 to 5.0µ sec., pulse repetition rate up to 10 mc, and test voltage of 500 volts D.C. Shipping weight is approximately 1 ounce.

Series M, Type AME. Electrical specifications are the same as those listed above. Pig-tail leads are 1⅞'' minimum length. Size overall: .369x$\frac{19}{32}$x½''. Aluminum case.

Series M, Type MP. 4-pin printed circuit leads, ¼'' long. Overall size: $\frac{15}{32}$x$\frac{7}{16}$'', with $\frac{1}{16}$'' side flare. Electrical characteristics are same as above.

● *NEW* GENIE SERIES

Type G. Miniature 3 winding transformers meet MIL-T-27A Grade 5 Class S, also MIL-T-21038A. Printed circuit assembly or conventional wiring techniques may be used. Leads are 2" long soft phospher bronze. Electro-tin plated per MIL-T-10727. **#22 AWG, Size: .35" x .425" x .650".**

Type H. Sub-miniature cas e3 winding transformers meet all physical and environmental requirements of MIL specs listed under Type G. Leads 1½" long. **#24 AWG. Size: .250" x .350" x .500".**

TYPE TE

Stock No.	Type	Pri. mh	Turns Ratio	1-9	10-24	25-49	50-up
7F400	G1WA	22	1:1:1	8.00	7.05	6.00	4.95
7F401	G5WA	22	5:1:1				
7F402	G15WA	22	5:5:1				
7F403	G3WA	22	3:1:1				
7F404	G13WA	22	3:3:1				
7F405	B1WA	10	1:1:1				
7F406	B5WA	10	5:1:1				
7F408	B3WA	10	3:1:1				
7F409	B13WA	10	3:3:1				
7F410	K1WA	4.7	1:1:1				
7F411	K5WA	4.7	5:1:1				
7F412	K15WA	4.7	5:5:1				
7F415	O1QA	1.0	1:1:1				
7F416	O5QA	1.0	5:1:1				
7F417	O15QA	1.0	5:5:1				
7F429	O3QA	1.0	3:1:1				
7F421	Q15QA	0.47	5:5:1				
7F424	U1QA	0.1	1:1:1				
7F425	U5QA	0.1	5:1:1				

TYPE MP

Stock No.	Type	Pri. mh	Turns Ratio	1-9	10-24	25-49	50-99
7F435	MB1UE	10	1:1	8.00	7.05	6.00	4.95
7F490	MB2UE	10	2:1				
7F436	MB3UE	10	3:1				
7F438	MB5UE	10	5:1				
7F439	MK1UE	4.7	1:1				
7F440	MK3UE	4.7	3:1				
7F491	MO2UE	1.0	2:1				
7F447	MQ1UE	0.47	1:1				
7F451	MS1UE	0.22	1:1				
7F452	MS3UE	0.22	3:1				

TYPE TP

Stock No.	Type	Inductance	1-9	10-24	25-49	50-up
7F430	XVAM	58 mh ±20%	8.00	7.05	6.00	4.95
7F431	BVAM	15 mh ±20%				
7F432	AVAM	3.8 mh ±20%				

TYPE AME

Stk. No.	Type	Pri. mh	Turns Ratio	1-9	10-24	25-49	50-99
7F459	AMB1WA	10	1:1:1	8.00	7.05	6.00	4.95
7F496	AMB12WA	10	2:2:1				
7F460	AMB3WA	10	3:1:1				
7F463	AMB15WA	10	5:5:1				
7F464	AMK1WA	4.7	1:1:1				
7F465	AMK3WA	4.7	3:1:1				
7F468	AMK15WA	4.7	5:5:1				
7F469	AMO1WA	1.0	1:1:1				
7F577	AMO12WA	1.0	2:2:1				
7F470	AMO3WA	1.0	3:1:1				
7F472	AMO5WA	1.0	5:1:1				
7F474	AMQ1WA	0.47	1:1:1				
7F480	AMS3WA	0.22	3:1:1				
7F481	AMS13WA	0.22	3:3:1				

TYPE H

Stk. No.	Type	Pri. mh	Turns ratio	1-9	10-24	25-49	50-up
7F350	11PHA	2500	1:1:1	6.50	5.50	4.80	4.00
7F351	11LHA	750	1:1:1				
7F352	11HHB	250	1:1:1				
7F353	11EHA	70	1:1:1				
7F354	11DHB	48	1:1:1				
7F355	11BHC	25	1:1:1				
7F356	11AHA	15	1:1:1				
7F357	118HA	7.5	1:1:1				
7F358	21PHA	2500	2:1:1				
7F359	21LHA	750	2:1:1				
7F360	21HHA	250	2:1:1				
7F361	21EHA	70	2:1:1				
7F362	21DHA	48	2:1:1				
7F363	21BHA	24	2:1:1				
7F364	21AHA	13.5	2:1:1				
7F365	218HA	6.7	2:1:1				
7F366	31PHA	2500	3:1:1				
7F367	31LHA	750	3:1:1				
7F368	31HHA	250	3:1:1				
7F369	31EHA	68	3:1:1				
7F370	31DHA	52	3:1:1				
7F371	31BHA	25	3:1:1				
7F372	31AHA	15	3:1:1				
7F373	318HA	7.5	3:1:1				
7F374	33PHA	2500	3:3:1				
7F375	33LHA	750	3:3:1				
7F376	33HHA	250	3:3:1				
7F377	33EHA	68	3:3:1				
7F378	33DHA	52	3:3:1				
7F379	33BHA	25	3:3:1				
7F380	33AHB	15	3:3:1				
7F381	338HA	7.5	3:3:1				
7F382	42PHA	2500	4:2:1				
7F383	42LHA	750	4:2:1				
7F384	42HHA	250	4:2:1				
7F385	42EHA	77	4:2:1				
7F386	42DHA	53	4:2:1				
7F387	42CHA	28	4:2:1				
7F388	42AHA	13.5	4:2:1				
7F389	429HA	8.8	4:2:1				

Balanced Center Tapped Transformers available on special order.

TYPE G

Stk. No.	Type	Pri. mh	Turns ratio	1-9	10-24	25-49	50-up
7F390	11GGA	0.12	1:1:1	6.50	5.50	4.80	4.00
7F391	11KGB	0.5	1:1:1				
7F392	11NGB	1.4	1:1:1				
7F393	11RGD	5.0	1:1:1				
7F394	11UGA	12.5	1:1:1				
7F395	21GGA	0.12	2:1:1				
7F396	21KGA	0.5	2:1:1				
7F397	21NGB	1.4	2:1:1				
7F398	21RGA	5.0	2:1:1				
7F399	21UGA	12.5	2:1:1				
7F592	31GGA	0.12	3:1:1				
7F593	31KGA	0.5	3:1:1				
7F594	31NGA	1.3	3:1:1				
7F595	31RGB	5.0	3:1:1				
7F596	31UGA	12.5	3:1:1				
7F597	33GGA	0.12	3:3:1				
7F598	33KGA	0.5	3:3:1				
7F599	33NGA	1.3	3:3:1				
7F845	33RGB	5.0	3:3:1				
7F846	33UGA	12.5	3:3:1				
7F847	42GGB	0.12	4:2:1				
7F848	42KGA	0.5	4:2:1				
7F849	42NGA	1.4	4:2:1				
7F850	42RGA	5.0	4:2:1				
7F851	42UGA	12.5	4:2:1				

Balanced Center Tapped Transformers available on special order.

NEWARK CAN SUPPLY
ALL CORNING CAPACITORS

CORNING CAPACITORS

MIL-C-11272B CYFM GLASS CAPACITORS

Fused, monolythic construction of the basic glass dielectric capacitive element provides outstanding electrical performance. Capacitive element is completely frozen in glass with a true glass to metal seal at the 106A) conditions for over 1200 hrs. The capacitors have been immersed in boiling salt water for 450 hrs. and saturated in steam at 15 lbs. gage press, for 150 hrs. without altering their performance. The completely inorganic materials used in Corning capacitors make them highly resistant to nuclear radiation. Exposures to radiation levels of 10^{18} NVT result in no significant changes in properties. VDCW is 300v & 500v from —55° to +125°C. Std. Tol. is ±5% or +0.25uuf whichever is greater. Life: after 2000 hrs. at 125°C with 150% of full rated voltage cap. change is less than .5% of 1mc or 1kc.

CYFM10C

Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F050	0R5C	.5	3.78	3.47	2.67	2.52	1.89
58F051	1R0C	1.0					
58F052	1R5C	1.5					
58F053	2R2C	2.2					
58F054	2R7C	2.7	3.63	3.33	2.57	2.42	1.82
58F055	3R0C	3.0					
58F056	3R3C	3.3					
58F057	3R6C	3.6					
58F058	3R9C	3.9					
58F059	4R3C	4.3					
58F060	4R7C	4.7					
58F061	5R1C	5.1					
58F062	5R6J	5.6	2.94	2.70	2.08	1.96	1.47
58F063	6R2J	6.2					
58F064	6R8J	6.8					
58F065	7R5J	7.5					
58F066	8R2J	8.2					
58F067	9R1J	9.1					
58F068	100J	10					
58F069	110J	11					
58F070	120J	12	1.20	1.10	.85	.80	.60
58F071	130J	13					
58F072	150J	15					
58F073	160J	16					
58F074	180J	18					
58F075	200J	20					
58F076	220J	22					
58F077	240J	24	1.20	1.10	.85	.80	.60
58F078	270J	27					
58F079	300J	30					
58F080	330J	33					
58F081	360J	36	1.35	1.24	.95	.90	.68
58F082	390J	39					
58F083	430J	43					
58F084	470J	47					
58F085	510J	51					
58F086	560J	56					
58F087	620J	62					
58F088	680J	68					
58F089	750J	75					
58F090	820J	82					
58F091	910J	91	2.16	1.98	1.53	1.44	1.08
58F092	101J	100					
58F093	111J	110					
58F094	121J	120					
58F095	131J	130					
58F096	151J	150					
58F097	161J	160	2.40	2.20	1.70	1.60	1.20
58F098	181J	180					
58F099	201J	200					
58F100	221J	220	2.82	2.59	1.99	1.88	1.41
58F101	241J	240					
58F102	271J	270					
58F103	301J	300					

CYFM15C

58F104	221J	220	1.50	1.38	1.06	1.00	.75
58F105	241J	240					
58F106	271J	270					
58F107	301J	300					
58F108	331J	330	1.74	1.60	1.23	1.16	.87
58F109	361J	360					
58F110	391J	390					
58F111	431J	430					
58F112	471J	470	2.10	1.93	1.48	1.40	1.05
58F113	511J	510	2.10	1.93	1.48	1.40	1.05
58F114	561J	560					
58F115	621J	620					
58F116	681J	680	2.40	2.20	1.70	1.60	1.20
58F117	751J	750					
58F118	821J	820					
58F119	911J	910					
58F120	102J	1000					
58F121	122J	1200	3.00	2.75	2.12	2.00	1.50

CYFM20C

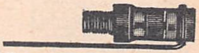
Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F122	561J	560	2.25	2.06	1.59	1.50	1.13
58F123	621J	620					
58F124	681J	680					
58F125	751J	750					
58F126	821J	820	2.40	2.20	1.70	1.60	1.20
58F127	911J	910					
58F128	102J	1000					
58F129	112J	1100					
58F130	122J	1200	2.70	2.48	1.91	1.80	1.35
58F131	132J	1300					
58F132	152J	1500					
58F133	162J	1600					
58F134	182J	1800	3.00	2.75	2.12	2.00	1.50
58F135	202J	2000	3.00	2.75	2.12	2.00	1.50
58F136	222J	2200	3.30	3.03	2.33	2.20	1.65
58F137	242J	2400					
58F138	272J	2700					
58F139	302J	3000					
58F140	332J	3300	3.75	3.44	2.65	2.50	1.88
58F141	362J	3600					
58F142	432J	4300	4.20	3.85	2.97	2.80	2.10
58F143	472J	4700					
58F144	512J	5100					

CYFM30C

58F145	362J	3600	3.90	3.58	2.76	2.60	1.95
58F146	392J	3900					
58F147	432J	4300					
58F148	472J	4700					
58F149	512J	5100	4.50	4.13	3.18	3.00	2.25
58F150	562J	5600	4.50	4.13	3.18	3.00	2.25
58F151	622J	6200	4.50	4.13	3.18	3.00	2.25
58F152	682J	6800	4.95	4.54	3.50	3.30	2.48
58F153	752J	7500	4.95	4.54	3.50	3.30	2.48
58F154	822J	8200	5.40	4.95	3.82	3.60	2.70
58F155	912J	9100	5.40	4.95	3.82	3.60	2.70
58F156	103J	10,000	6.00	5.50	4.24	4.00	3.00

SEALED MINI TRIMMERS

Extreme miniaturization and hermetic sealing with performance advantages of direct traverse. Shortest overall length. Capacitance change per turn of 0.4 to 0.6 pf. TC is ±50 to ±100 ppm/°C. Size: panel mount: 15/32" to 1 11/64" behind panel, 1/4" from front of panel; printed circuit, 5/8" to 1 1/4" overall.



PRINTED CIRCUIT STYLE

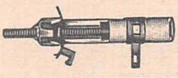
Stk. No.	Type	Range	1-49	50-99	100-249	250-499	500-999
19F2250	682181	1-4.5 uuf	5.50	4.80	4.15	3.45	3.20
19F2251	682182	1-8.5 uuf	5.50	4.80	4.15	3.45	3.20
19F2252	682183	1-12 uuf	6.00	5.25	4.50	3.75	3.45
19F2253	682184	1-18 uuf	6.50	5.65	4.85	4.05	3.75

PANEL MOUNT STYLE

Stk. No.	Type	Range	1-49	50-99	100-249	250-499	500-999
19F2254	682186	1-4.5 uuf	5.50	4.80	4.15	3.45	3.20
19F2255	682187	1-8.5 uuf	5.50	4.80	4.15	3.45	3.20
19F2256	682188	1-12 uuf	6.00	5.25	4.50	3.75	3.45
19F2257	682189	1-18 uuf	6.50	5.65	4.85	4.05	3.75

CORNING-GLASS MIDGET ROTARY TRIMMER CAP.

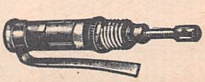
Corning Midget Rotary Trimmer Capacitors offer outstanding performance, plus low cost. Temperature coefficient of capacitance of brass core is approx. 200 ±50 ppm/°C.



No.	Mfg. No.	Range Mmf.	Length	1-49	50-99	100-249	250-499	500-999
19F892	680073	0.5- 3	13/16	1.44	1.32	1.02	.96	.72
19F893	680071	1- 8	1 1/32	1.50	1.37	1.06	1.00	.75
19F894	680072	1-12	1 15/32	1.56	1.43	1.10	1.04	.78
19F854	680000	0.5- 3	25/32	.90	.82	.64	.60	.45
19F856	680002	1.0-12	1 19/64	1.02	.95	.72	.68	.51

MIDGET TRIMMER CAPACITORS—DIRECT TRAVERSE TYPE

For applications where sheer ruggedness is desired in addition to thermal stability and a smooth tuning characteristic, the direct traverse type of trimmer cap. operates best.



No.	Type	Mmf.	Size	1-49	50-99	100-249	250-499	500-999
19F852	682054	1-7.5	1 11/16x 13/16"	3.15	2.89	2.23	2.10	1.58
19F1082	682107	1-8	1/4x7/8"	3.24	2.97	2.70	2.25	2.07

SOLID TANTALUM CAPACITORS

SCM-4
220M 10V

Type SCM. The advantages of this capacitor are achieved by completely dry construction (no liquid or paste is used) and the chemical stability of tantalum and its oxides. The leakage is extremely small. The small cylindrical case can be mounted either vertically or horizontally on your printed circuit boards. A perfect capacitor for transistorized equipment, coupling stages, RC timing circuits, power supplies, etc. Will withstand low and high frequency vibration due to strong mechanical support of tantalum pellet. **All capacitances in microfarads.**

6 WORKING VOLTS DC ± 20% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F018	105FP006A4	1.0	0.125	0.250	1.46	1.17	.99	.73	.69
17F019	155FP006A4	1.5	0.125	0.250	1.46	1.17	.99	.73	.69
17F020	225FP006A4	2.2	0.125	0.250	1.46	1.17	.99	.73	.69
17F062	335FP006A4	3.3	0.125	0.250	1.46	1.17	.99	.73	.69
17F021	475FP006A4	4.7	0.125	0.250	1.46	1.17	.99	.73	.69
17F022	685FP006A4	6.8	0.125	0.250	1.46	1.17	.99	.73	.69
17F023	106BP006A4	10	0.175	0.438	1.52	1.22	1.03	.75	.71
17F063	156BP006A4	15	0.175	0.438	1.52	1.22	1.03	.75	.71
17F024	226BP006A4	22	0.175	0.438	1.52	1.22	1.03	.75	.71
17F001	336BP006A4	33	0.175	0.438	1.52	1.22	1.03	.75	.71
17F025	476BP006A4	47	0.175	0.438	1.52	1.22	1.03	.75	.71
17F064	686GP006A4	68	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F065	107GP006A4	100	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F026	157GP006A4	150	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F083	227HP006A4	220	0.341	0.750	4.70	3.76	3.18	2.45	2.34
17F027	337HP006A4	330	0.341	0.750	4.70	3.76	3.18	2.45	2.34

10 WORKING VOLTS DC ± 20% TQLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F066	105FP010A4	1.0	0.125	0.250	1.46	1.17	.99	.73	.69
17F067	155FP010A4	1.5	0.125	0.250	1.46	1.17	.99	.73	.69
17F068	225FP010A4	2.2	0.125	0.250	1.46	1.17	.99	.73	.69
17F069	335FP010A4	3.3	0.125	0.250	1.46	1.17	.99	.73	.69
17F028	475FP010A4	4.7	0.125	0.250	1.46	1.17	.99	.73	.69
17F070	685BP010A4	6.8	0.175	0.438	1.52	1.22	1.03	.75	.71
17F029	106BP010A4	10	0.175	0.438	1.52	1.22	1.03	.75	.71
17F071	156BP010A4	15	0.175	0.438	1.52	1.22	1.03	.75	.71
17F072	226BP010A4	22	0.175	0.438	1.52	1.22	1.03	.75	.71
17F030	336BP010A4	33	0.175	0.438	1.52	1.22	1.03	.75	.71
17F031	476GP010A4	47	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F032	686GP010A4	68	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F033	107GP010A4	100	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F073	157HP010A4	150	0.341	0.750	4.70	3.76	3.18	2.45	2.34
17F034	227HP010A4	220	0.341	0.750	4.70	3.76	3.18	2.45	2.34

15 WORKING VOLTS DC ± 20% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F035	105FP015A4	1.0	0.125	0.250	1.46	1.17	.99	.73	.69
17F036	155FP015A4	1.5	0.125	0.250	1.46	1.17	.99	.73	.69
17F074	225FP015A4	2.2	0.125	0.250	1.46	1.17	.99	.73	.69
17F037	335FP015A4	3.3	0.125	0.250	1.46	1.17	.99	.73	.69
17F075	475BP015A4	4.7	0.175	0.438	1.52	1.22	1.03	.75	.71
17F038	685BP015A4	6.8	0.175	0.438	1.52	1.22	1.03	.75	.71
17F076	106BP015A4	10	0.175	0.438	1.52	1.22	1.03	.75	.71
17F006	156BP015A4	15	0.175	0.438	1.52	1.22	1.03	.75	.71
17F007	226BP015A4	22	0.175	0.438	1.52	1.22	1.03	.75	.71
17F077	336GP015A4	33	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F078	476GP015A4	47	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F079	686GP015A4	68	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F080	107HP015A4	100	0.341	0.750	4.70	3.76	3.18	2.45	2.34
17F039	157HP015A4	150	0.341	0.750	4.70	3.76	3.18	2.45	2.34

20 WORKING VOLTS DC ± 20% TOLERANCE

17F081	105FP020A4	1.0	0.125	0.250	1.46	1.17	.99	.73	.69
17F040	155FP020A4	1.5	0.125	0.250	1.46	1.17	.99	.73	.69
17F041	225FP020A4	2.2	0.125	0.250	1.46	1.17	.99	.73	.69
17F042	335BP020A4	3.3	0.175	0.438	1.52	1.22	1.03	.75	.71
17F043	475BP020A4	4.7	0.175	0.438	1.52	1.22	1.03	.75	.71
17F082	685BP020A4	6.8	0.175	0.438	1.52	1.22	1.03	.75	.71
17F044	106BP020A4	10	0.175	0.438	1.52	1.22	1.03	.75	.71
17F045	156BP020A4	15	0.175	0.438	1.52	1.22	1.03	.75	.71
17F046	226GP020A4	22	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F047	336GP020A4	33	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F048	476GP020A4	47	0.175	0.650	2.52	2.02	1.70	1.24	1.19
17F049	686HP020A4	68	0.341	0.750	4.70	3.76	3.18	2.45	2.34
17F050	107HP020A4	100	0.341	0.750	4.70	3.76	3.18	2.45	2.34

35 WORKING VOLTS DC ±20% TOLERANCE

17F1134	472FP035A4	.0047	0.125	0.250	1.30	1.04	.88	.72	.68
17F1135	682FP035A4	.0068	0.125	0.250	1.30	1.04	.88	.72	.68
17F1136	103FP035A4	.010	0.125	0.250	1.30	1.04	.88	.72	.68
17F1137	153FP035A4	.015	0.125	0.250	1.30	1.04	.88	.72	.68
17F1138	223FP035A4	.022	0.125	0.250	1.30	1.04	.88	.72	.68
17F1139	333FP035A4	.033	0.125	0.250	1.30	1.04	.88	.72	.68
17F1140	473FP035A4	.047	0.125	0.250	1.30	1.04	.88	.72	.68
17F1141	683FP035A4	.068	0.125	0.250	1.30	1.04	.88	.72	.68
17F1142	104FP035A4	.10	0.125	0.250	1.30	1.04	.88	.72	.68
17F1143	154FP035A4	.15	0.125	0.250	1.46	1.17	.99	.73	.69
17F1144	224FP035A4	.22	0.125	0.250	1.46	1.17	.99	.73	.69
17F1145	334FP035A4	.33	0.125	0.250	1.46	1.17	.99	.73	.69
17F1146	474FP035A4	.47	0.125	0.250	1.46	1.17	.99	.73	.69
17F1147	684FP035A4	.68	0.125	0.250	1.46	1.17	.99	.73	.69
17F051	105FP035A4	1.0	0.125	0.250	1.46	1.17	.99	.73	.69

35 WORKING VOLTS DC ±20% TOLERANCE (Continued)

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F052	155BP035A4	1.5	0.175	0.438	1.52	1.22	1.03	.75	.71
17F053	225BP035A4	2.2	0.175	0.438	1.52	1.22	1.03	.75	.71
17F054	335BP035A4	3.3	0.175	0.438	1.52	1.22	1.03	.75	.71
17F055	475BP035A4	4.7	0.175	0.438	1.52	1.22	1.03	.75	.71
17F056	685BP035A4	6.8	0.175	0.438	1.52	1.22	1.03	.75	.71
17F057	106GP035A4	10	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F058	156GP035A4	15	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F059	226GP035A4	22	0.279	0.650	2.52	2.02	1.70	1.24	1.19
17F060	336HP035A4	33	0.341	0.750	4.70	3.76	3.18	2.45	2.34
17F061	476HP035A4	47	0.341	0.750	4.70	3.76	3.18	2.45	2.34

6 WORKING VOLTS DC ± 10% TOLERANCE

17F1000	105FP006A2	1.0	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1001	125FP006A2	1.2	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1002	155FP006A2	1.5	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1003	185FP006A2	1.8	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1004	225FP006A2	2.2	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1005	275FP006A2	2.7	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1006	335FP006A2	3.3	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1007	395FP006A2	3.9	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1008	475FP006A2	4.7	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1009	565FP006A2	5.6	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1010	685FP006A2	6.8	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1011	825BP006A2	8.2	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1012	106BP006A2	10	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1013	126BP006A2	12	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1014	156BP006A2	15	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1015	186BP006A2	18	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1016	226BP006A2	22	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1017	276BP006A2	27	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1018	336BP006A2	33	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1019	396BP006A2	39	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1020	476BP006A2	47	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1021	566BP006A2	56	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1022	686GP006A2	68	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1023	826GP006A2	82	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1024	107GP006A2	100	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1025	127GP006A2	120	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1026	157GP006A2	150	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1027	187GP006A2	180	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1028	227HP006A2	220	0.341	0.750	6.12	4.90	4.13	3.18	3.04
17F1029	277HP006A2	270	0.341	0.750	6.12	4.90	4.13	3.18	3.04
17F1030	337HP006A2	330	0.341	0.750	6.12	4.90	4.13	3.18	3.04

10 WORKING VOLTS DC ± 10% TOLERANCE

17F1031	105FP010A2	1.0	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1032	125FP010A2	1.2	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1033	155FP010A2	1.5	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1034	185FP010A2	1.8	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1035	225FP010A2	2.2	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1036	275FP010A2	2.7	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1037	335FP010A2	3.3	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1038	395FP010A2	3.9	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1039	475FP010A2	4.7	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1040	565BP010A2	5.6	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1041	685BP010A2	6.8	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1042	825BP010A2	8.2	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1043	106BP010A2	10	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1044	126BP010A2	12	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1045	156BP010A2	15	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1046	186BP010A2	18	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1047	226BP010A2	22	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1048	276BP010A2	27	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1049	336BP010A2	33	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1050	396BP010A2	39	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1051	476GP010A2	47	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1052	566GP010A2	56	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1053	686GP010A2	68	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1054	826GP010A2	82	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1055	107GP010A2	100	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1056	127GP010A2	120	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1057	157HP010A2	150	0.341	0.750	6.12	4.90	4.13	3.18	3.04
17F1058	187HP010A2	180	0.341	0.750	6.12	4.90	4.13	3.18	3.04
17F1059	227HP010A2	220	0.341	0.750	6.12	4.90	4.13	3.18	3.04

15 WORKING VOLTS DC ± 10% TOLERANCE

17F1060	105FP015A2	1.0	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1061	125FP015A2	1.2	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1062	155FP015A2	1.5	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1063	185FP015A2	1.8	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1064	225FP015A2	2.2	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1065	275FP015A2	2.7	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1066	335FP015A2	3.3	0.125	0.250	1.92	1.54	1.30	.95	.90
17F1067	395BP015A2	3.9	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1068	475BP015A2	4.7	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1069	565BP015A2	5.6	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1070	685BP015A2	6.8	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1071	825BP015A2	8.2	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1072	106BP015A2	10	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1073	126BP015A2	12	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1074	156BP015A2	15	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1075	186BP015A2	18	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1076	226BP015A2	22	0.175	0.438	1.98	1.59	1.34	.97	.92
17F1077	276GP015A2	27	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1078	336GP015A2	33	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1079	396GP015A2	39	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1080	476GP015A2	47	0.279	0.650	3.28	2.62	2.22	1.62	1.55
17F1081	566GP015A2	56	0.279	0.650	3.28	2.62	2.22	1.62	1.55

TYPE SCM SOLID TANTALUM CAPACITORS (Continued)

15 WORKING VOLTS DC ±10% TOLERANCE

Stock No.	SCM Type	Mfd.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F1082	686GP015A2	68	.279	.650	3.28	2.62	2.22	1.62	1.55
17F1083	826HP015A2	82	.341	.750	6.12	4.90	4.13	3.18	3.04
17F1084	107HP015A2	100	.341	.750	6.12	4.90	4.13	3.18	3.04
17F1085	127HP015A2	120	.341	.750	6.12	4.90	4.13	3.18	3.04
17F1086	157HP015A2	150	.341	.750	6.12	4.90	4.13	3.18	3.04

20 WVDC ±10% TOLERANCE

Stock No.	SCM Type	Mfd.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F1087	105FP020A2	1.0	.125	.250	1.92	1.54	1.30	.95	.90
17F1088	125FP020A2	1.2	.125	.250	1.92	1.54	1.30	.95	.90
17F1089	155FP020A2	1.5	.125	.250	1.92	1.54	1.30	.95	.90
17F1090	185FP020A2	1.0	.125	.250	1.92	1.54	1.30	.95	.90
17F1091	225FP020A2	2.2	.125	.250	1.92	1.54	1.30	.95	.90
17F1092	275BP020A2	2.7	.173	.438	1.98	1.59	1.34	.97	.92
17F1093	335BP020A2	3.3	.173	.438	1.98	1.59	1.34	.97	.92
17F1094	395BP020A2	3.9	.173	.438	1.98	1.59	1.34	.97	.92
17F1095	475BP020A2	4.7	.173	.438	1.98	1.59	1.34	.97	.92
17F1096	565BP020A2	5.6	.173	.438	1.98	1.59	1.34	.97	.92
17F1097	685BP020A2	6.8	.173	.438	1.98	1.59	1.34	.97	.92
17F1098	825BP020A2	8.2	.173	.438	1.98	1.59	1.34	.97	.92
17F1099	106BP020A2	10	.173	.438	1.98	1.59	1.34	.97	.92
17F1100	126BP020A2	12	.173	.438	1.98	1.59	1.34	.97	.92
17F1101	156BP020A2	15	.173	.438	1.98	1.59	1.34	.97	.92
17F1102	186GP020A2	18	.279	.650	3.28	2.62	2.22	1.62	1.55
17F1103	226GP020A2	22	.279	.650	3.28	2.62	2.22	1.62	1.55
17F1104	276GP020A2	27	.279	.650	3.28	2.62	2.22	1.62	1.55
17F1105	336GP020A2	33	.279	.650	3.28	2.62	2.22	1.62	1.55
17F1106	396GP020A2	39	.279	.650	3.28	2.62	2.22	1.62	1.55
17F1107	476GP020A2	47	.279	.650	3.28	2.62	2.22	1.62	1.55
17F1108	566HP020A2	56	.341	.750	6.12	4.90	4.13	3.18	3.04
17F1109	686HP020A2	68	.341	.750	6.12	4.90	4.13	3.18	3.04
17F1110	826HP020A2	82	.341	.750	6.12	4.90	4.13	3.18	3.04
17F1111	107HP020A2	100	.341	.750	6.12	4.90	4.13	3.18	3.04
17F1112	127HP020A2	120	.341	.750	6.12	4.90	4.13	3.18	3.04

35 WORKING VOLTS DC ±10% TOLERANCE

Stock No.	SCM Type	Mfd.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F1150	472FP035A2	.0047	.125	.250	1.69	1.36	1.14	.94	.88
17F1151	562FP035A2	.0056	.125	.250	1.69	1.36	1.14	.94	.88
17F1152	682FP035A2	.0068	.125	.250	1.69	1.36	1.14	.94	.88
17F1153	822FP035A2	.0082	.125	.250	1.69	1.36	1.14	.94	.88
17F1154	103FP035A2	.010	.125	.250	1.69	1.36	1.14	.94	.88
17F1155	123FP035A2	.012	.125	.250	1.69	1.36	1.14	.94	.88
17F1156	153FP035A2	.015	.125	.250	1.69	1.36	1.14	.94	.88

35 WORKING VOLTS DC ±10% TOLERANCE—Continued

Stock No.	SCM Type	Mfd.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F1157	183FP035A2	.018	.125	.250	1.69	1.36	1.14	.94	.88
17F1158	223FP035A2	.022	.125	.250	1.69	1.36	1.14	.94	.88
17F1159	273FP035A2	.027	.125	.250	1.69	1.36	1.14	.94	.88
17F1160	333FP035A2	.033	.125	.250	1.69	1.36	1.14	.94	.88
17F1161	393FP035A2	.039	.125	.250	1.69	1.36	1.14	.94	.88
17F1162	473FP035A2	.047	.125	.250	1.69	1.36	1.14	.94	.88
17F1163	563FP035A2	.056	.125	.250	1.69	1.36	1.14	.94	.88
17F1164	683FP035A2	.068	.125	.250	1.69	1.36	1.14	.94	.88
17F1165	823FP035A2	.082	.125	.250	1.69	1.36	1.14	.94	.88
17F1166	104FP035A2	.10	.125	.250	1.69	1.36	1.14	.94	.88
17F1167	124FP035A2	.12	.125	.250	1.92	1.54	1.30	.95	.90
17F1168	154FP035A2	.15	.125	.250	1.92	1.54	1.30	.95	.90
17F1169	184FP035A2	.18	.125	.250	1.92	1.54	1.30	.95	.90
17F1170	224FP035A2	.22	.125	.250	1.92	1.54	1.30	.95	.90
17F1171	274FP035A2	.27	.125	.250	1.92	1.54	1.30	.95	.90
17F1172	334FP035A2	.33	.125	.250	1.92	1.54	1.30	.95	.90
17F1173	394FP035A2	.39	.125	.250	1.92	1.54	1.30	.95	.90
17F1174	474FP035A2	.47	.125	.250	1.92	1.54	1.30	.95	.90
17F1175	564FP035A2	.56	.125	.250	1.92	1.54	1.30	.95	.90
17F1176	684FP035A2	.68	.125	.250	1.92	1.54	1.30	.95	.90
17F1177	824FP035A2	.82	.125	.250	1.92	1.54	1.30	.95	.90
17F1113	105FP035A2	1.0	.125	.250	1.92	1.54	1.30	.95	.90
17F1114	125BP035A2	1.2	.173	.438	1.98	1.59	1.34	.97	.92
17F1115	155BP035A2	1.5	.173	.438	1.98	1.59	1.34	.97	.92
17F1116	185BP035A2	1.8	.173	.438	1.98	1.59	1.34	.97	.92
17F1117	225BP035A2	2.2	.173	.438	1.98	1.59	1.34	.97	.92
17F1118	275BP035A2	2.7	.173	.438	1.98	1.59	1.34	.97	.92
17F1119	335BP035A2	3.3	.173	.438	1.98	1.59	1.34	.97	.92
17F1120	395BP035A2	3.9	.173	.438	1.98	1.59	1.34	.97	.92
17F1121	475BP035A2	4.7	.173	.438	1.98	1.59	1.34	.97	.92
17F1122	565BP035A2	5.6	.173	.438	1.98	1.59	1.34	.97	.92
17F1123	685BP035A2	6.8	.173	.438	1.98	1.59	1.34	.97	.92
17F1124	825GP035A2	8.2	.279	.650	3.28	2.62	2.22	1.62	1.55
17F1125	106GP035A2	10	.279	.650	3.28	2.62	2.22	1.62	1.55
17F1126	126GP035A2	12	.279	.650	3.28	2.62	2.22	1.62	1.55
17F1127	156GP035A2	15	.279	.650	3.28	2.62	2.22	1.62	1.55
17F1128	186GP035A2	18	.279	.650	3.28	2.62	2.22	1.62	1.55
17F1129	226GP035A2	22	.279	.650	3.28	2.62	2.22	1.62	1.55
17F1130	276HP035A2	27	.341	.750	6.12	4.90	4.13	3.18	3.04
17F1131	336HP035A2	33	.341	.750	6.12	4.90	4.13	3.18	3.04
17F1132	396HP035A2	39	.341	.750	6.12	4.90	4.13	3.18	3.04
17F1133	476HP035A2	47	.341	.750	6.12	4.90	4.13	3.18	3.04

TYPE CS13 SOLID TANTALUM ELECTROLYTIC CAPACITORS

- **Meets Military Specification MIL C-26655A**

Type CS13. With insulating sleeves ±10% tolerance. Completely dry construction (no liquid pastes are used) and the stability of tantalum and its oxides are the advantages of this insulated capacitor. Leakage is minimal. Can be used for transistorized equipment, power supplies, etc. Can wihtstand low and high frequency vibrations due to strong mechanical support of tantalum pellet. All capacitances are in microfarads.

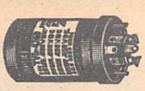
Stk. No.	CS13-Type	Mfd.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F1200	AB5R6K	5.6	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1201	AB6R8K	6.8	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1202	AB470K	47	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1203	AB560K	56	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1204	AB151K	150	.279	.65	3.62	2.90	2.46	1.80	1.73
17F1205	AB181K	180	.279	.65	3.62	2.90	2.46	1.80	1.73
17F1206	AB271K	270	.341	.75	6.75	5.41	4.56	3.52	3.36
17F1207	AB331K	330	.341	.75	6.75	5.41	4.56	3.52	3.36
17F1208	AC3R9K	3.9	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1209	AC4R7K	4.7	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1210	AC270K	27	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1211	AC330K	33	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1212	AC390K	39	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1213	AC820K	82	.279	.65	3.62	2.90	2.46	1.80	1.73
17F1214	AC101K	100	.279	.65	3.62	2.90	2.46	1.80	1.73
17F1215	AC121K	120	.279	.65	3.62	2.90	2.46	1.80	1.73
17F1216	AC181K	180	.341	.75	6.75	5.41	4.56	3.52	3.36
17F1217	AC221K	220	.341	.75	6.75	5.41	4.56	3.52	3.36
17F1218	AD2R7K	2.7	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1219	AD3R3K	3.3	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1220	AD180K	18	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1221	AD220K	22	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1222	AD560K	56	.279	.65	3.62	2.90	2.46	1.80	1.73
17F1223	AD680K	68	.279	.65	3.62	2.90	2.46	1.80	1.73
17F1224	AD121K	120	.341	.75	6.75	5.41	4.56	3.52	3.36
17F1225	AD151K	150	.341	.75	6.75	5.41	4.56	3.52	3.36
17F1226	AE1R2K	1.2	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1227	AE1R5K	1.5	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1228	AE1R8K	1.8	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1229	AE2R2K	2.2	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1230	AE8R2K	8.2	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1231	AE100K	10	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1232	AE120K	12	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1233	AE150K	15	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1234	AE270K	27	.279	.65	3.62	2.90	2.46	1.80	1.73
17F1235	AE330K	33	.279	.65	3.62	2.90	2.46	1.80	1.73
17F1236	AE390K	39	.279	.65	3.62	2.90	2.46	1.80	1.73
17F1237	AE470K	47	.279	.65	3.62	2.90	2.46	1.80	1.73
17F1238	AE560K	56	.341	.75	6.75	5.41	4.56	3.52	3.36
17F1239	AE680K	68	.341	.75	6.75	5.41	4.56	3.52	3.36

Stk. No.	CS13-Type	Mfd.	Dia.	L.	1-24	25-49	50-99	100-499	500 999
17F1240	AE820K	82	.341	.75	6.75	5.41	4.56	3.52	3.36
17F1241	AE101K	100	.341	.75	6.75	5.41	4.56	3.52	3.36
17F1242	AFR33K	0.33	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1243	AFR39K	0.39	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1244	AFR47K	0.47	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1245	AFR56K	0.56	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1246	AFR68K	0.68	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1247	AFR82K	0.82	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1248	AF010K	1	.125	.25	2.11	1.69	1.43	1.07	1.01
17F1249	AF1R2K	1.2	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1250	AF1R5K	1.5	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1251	AF1R8K	1.8	.175	.438					
17F1252	AF2R2K	2.2	.175	.438					
17F1253	AF2R7K	2.7	.175	.438					
17F1254	AF3R3K	3.3	.175	.438					
17F1255	AF3R9K	3.9	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1256	AF4R7K	4.7	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1257	AF5R6K	5.6	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1258	AF6R8K	6.8	.175	.438	2.20	1.77	1.49	1.09	1.03
17F1259	AF8R2K	8.2	.279	.65	3.62	2.90	2.46	1.80	1.73
17F1260	AF100K	10	.279	.65	3.62	2.90	2.46	1.80	1.73
17F1261	AF120K	12	.279	.65					
17F1262	AF150K	15	.279	.65					
17F1263	AF180K	18	.279	.65					
17F1264	AF220K	22	.279	.65					
17F1265	AF270K	27	.341	.75	6.75	5.41	4.56	3.52	3.36
17F1266	AF330K	33	.341	.75					
17F1267	AF390K	39	.341	.75					
17F1268	AF470K	47	.341	.75					

Newark can supply the complete lines of Texas Instruments and Plastic Capacitors; Just write us your requirements for complete information.

SPRAGUE CAPACITORS

TVL TWIST-LOK ELECTROLYTICS



Self-mounting, with twist-prong tabs that go through chassis or connect to washer for above-chassis mounting. For 85°C operation up to 450 Working Volts DC.

CASE SIZE

A—1⅜x2"
B—¾x2"
C—¾x2½"
D—1⅜x2½"
E—1x2"
F—1x2½"
G—1x3"
H—1⅜x3"
J—1⅜x4"
K—1⅜xx3½"
L—1x3½"
M—1⅜x4"

SINGLE UNITS

Stock No.	TVL No.	MF	WVDC	Size	1-24	25-49	50-99	100-249
18F550	1168	2000	15	A	2.07	1.44	1.12	.89
18F1603	1220	500	25	E	1.53	.87	.68	.54
18F552	1230	1000	25	A	2.13	1.30	1.01	.81
18F667	1317	100	50	B	.99	.58	.45	.36
18F553	1320	150	50	C	1.08	.62	.48	.39
18F554	1330	500	50	D	1.59	1.09	.85	.68
18F1694	1338	1000	50	K	2.25	1.49	1.16	.93
18F1695	1341	1500	50	J	2.64	1.87	1.45	1.16
18F557	1415	50	150	E	.99	.66	.51	.41
18F558	1420	80	150	F	1.11	.71	.56	.45
18F559	1423	100	150	F	1.20	.75	.58	.47
18F688	1425	120	150	F	1.29	.78	.61	.49
18F689	1429	150	150	G	1.29	.83	.65	.52
18F560	1430	150	150	H	1.29	.99	.77	.62
18F561	1431	200	150	J	1.47	1.10	.86	.69
18F562	1434	300	150	K	1.68	1.25	.97	.78
18F668	1509	20	250	E	.96	.64	.50	.40
18F684	1519	40	250	E	1.08	.70	.54	.44
18F690	1547	200	250	K	2.19	1.36	1.06	.85
18F669	1617	30	350	E	1.14	.72	.56	.45
18F566	1584	150	300	K	2.10	1.34	1.05	.84
18F692	1590	250	300	J	3.33	1.74	1.35	1.08
18F567	1621	40	350	E	1.20	.77	.60	.48
18F568	1638	125	350	K	2.37	1.37	1.06	.85
18F693	1642	150	350	J	2.37	1.50	1.17	.93
18F569	1705	10	450	E	.93	.65	.51	.41
18F570	1714	20	450	E	1.08	.72	.56	.45
18F571	1720	30	450	F	1.17	.80	.63	.50
18F572	1725	40	450	G	1.23	.88	.68	.55
18F573	1735	80	450	D	1.83	1.31	1.02	.81
18F574	1760	125	450	J	2.31	1.69	1.31	1.05
18F576	1820	40	475	A	1.51	1.06	.82	.66
18F578	1940	10	500	E	1.02	.68	.53	.42
18F1696	1943	20	500	F	1.11	.78	.61	.49
18F670	1947	30	500	G	1.20	.89	.69	.55
18F1604	1950	40	500	L	1.50	.99	.77	.62
18F694	1958	80	500	H	2.16	1.54	1.20	.96
18F687	1960	90	500	K	2.10	1.66	1.29	1.03

DUAL UNITS

18F1605	2160	1000-1000	15-15	L	2.64	1.40	1.09	.87
18F579	2415	20-20	150-150	E	1.02	.73	.57	.45
18F581	2422	30-30	150-150	E	1.11	.76	.59	.47
18F582	2425	40-20	150-150	E	1.11	.76	.59	.47
18F583	2428	40-40	150-150	F	1.14	.80	.62	.50
18F584	2432	50-30	150-150	F	1.20	.80	.62	.50
18F585	2435	50-50	150-150	F	1.29	.83	.64	.52
18F587	2442	80-40	150-150	D	1.38	1.02	.79	.63
18F695	2442.1	80-50	150-150	F	1.44	.88	.68	.55
18F671	2515	20-20	250-250	E	1.14	.78	.61	.49
18F672	2585	80-80	300-300	H	2.43	1.45	1.13	.90
18F685	2628	30-30	350-350	G	1.74	.96	.75	.60
18F673	2634	80-40	350-350	H	2.46	1.41	1.10	.88
18F594	2635	80-80	350-350	J	2.82	1.63	1.27	1.01
18F598	2750	10-10	450-450	E	1.14	.81	.63	.50
18F599	2753	15-15	450-450	F	1.35	.89	.69	.55
18F600	2755	20-20	450-450	G	1.53	.96	.75	.60
18F601	2759	30-30	450-450	D	1.83	1.26	.98	.78
18F1697	2762	40-20	450-450	F	1.95	1.26	.98	.78
18F602	2764	40-40	450-450	H	2.07	1.42	1.10	.88
18F605	2777	80-30	450-450	J	2.52	1.66	1.29	1.03
18F1698	2778	80-40	450-450	K	3.03	1.72	1.34	1.07
18F1699	2935	20-20	500-500	D	1.71	1.22	.95	.76
18F674	2940	40-40	500-500	H	2.58	1.63	1.27	1.02

TRIPLE UNITS

18F675	3426	40-40-20	150-150-25	E	1.44	.88	.69	.55
18F613	3440	40-40-40	150-150-150	L	1.56	.95	.74	.59
18F614	3442	50-50-50	150-150-150	G	1.80	.99	.77	.62
18F619	3540	40-20-20	250-250-250	L	1.74	1.00	.78	.62
18F621	3580	10-10-10	300-300-300	E	1.44	.86	.67	.53
18F622	3583	80-40-40	300-300-300	D	2.85	1.52	1.18	.95
18F686	3639.8	30-20-10	350-350-350	F	1.95	1.04	.81	.65
18F625	3620	30-30-20	350-300-25	G	1.89	1.02	.80	.64
18F627	3630	15-10-20	350-350-25	F	1.50	.88	.69	.55
18F630	3640	60-40-20	350-350-350	J	2.55	1.53	1.19	.95
18F631	3642	80-60-60	350-350-350	J	3.33	1.91	1.49	1.19
18F633	3678	20-20-20	400-400-25	G	1.71	1.02	.79	.64
18F634	3731	10-10-20	450-450-25	E	1.44	.90	.70	.56
18F635	3739	20-20-20	450-450-25	G	1.83	1.05	.82	.66
18F637	3749	10-10-40	450-450-50	F	1.50	.92	.71	.57
18F1609	3754.2	40-10-100	450-450-50	H	2.58	1.36	1.06	.85
18F640	3757	80-20-100	450-450-50	J	2.88	1.75	1.36	1.09
18F641	3764	40-40-100	450-450-200	J	2.97	1.75	1.37	1.09
18F642	3776	10-10-10	450-450-450	G	1.56	.97	.76	.61
18F680	3778.2	15-15-15	450-450-450	G	1.86	1.08	.84	.67
18F644	3780	20-20-20	450-450-450	D	2.16	1.34	1.04	.84
18F646	3785	40-40-10	450-450-450	D	2.49	1.56	1.21	.97
18F647	3786	40-40-20	450-450-450	H	2.67	1.65	1.28	1.03
18F648	3787	40-40-40	450-450-450	K	2.94	1.81	1.41	1.13
18F649	3789	60-20-20	450-450-450	H	2.76	1.65	1.28	1.03
18F1610	3792	80-40-10	450-450-450	J	4.56	1.89	1.47	1.18
18F681	3793	80-40-20	450-450-450	J	3.24	1.97	1.53	1.22
18F682	3952	10-10-10	500-500-500	G	1.62	1.05	.82	.66
18F1611	3842.6	40-30-10	475-475-475	H	2.70	1.60	1.25	1.00
18F652	3843	40-30-30	475-475-475	J	3.09	1.80	1.40	1.12

QUADRUPLE UNITS

18F931	4561	100-10-200-30	300-300-150-150	M	3.54	1.82	1.42	1.13
18F656	4579	40-40-20-10	300-300-300-300	K	2.73	1.43	1.12	.89
18F664	4760	10-10-10-10	450-450-450-450	A	2.01	1.25	.98	.78
18F665	4763	20-20-20-20	450-450-450-450	H	2.82	1.58	1.23	.98
18F699	4775	40-40-40-40	450-450-450-450	J	3.87	2.19	1.70	1.36

HYPASS SUPPRESSION CAPACITORS

Exclusive 3-terminal Network—Feed-thru capacitors assure very effective V-H-F currents by-passing. Bypass VHF oscillation up to 150 MC, where ordinary capacitors are ineffective. Suppress TVI from Short-Wave Transmitters, Diathermy Machines, Electronic Heating Apparatus, etc. Eliminate Interference caused by Line-conducted radiation between neighboring TV sets. Temperature operation: —40°C to +85°C. Currents up to 20 amps. *Have female screw terms. †Bulkhead mounting.

Stk. No.	Type	Amps.	Mfd.	WVDC	Dia. x Length	NET
18F189	48P18*	40	.5	50	1x1 13/16"	2.23
18F190	48P9*	20	.1	250VAC	1 1/16x1 13/16"	1.56
18F244	48P8*	20	.1	600	1 1/16x1 13/16"	1.56
18F198	46P12	15	.002	600	¼x1⅝"	1.29
18F191	46P8	15	.005	600	¼x1⅝"	1.29
18F192	47P6	20	.01	600	7/16x1¼"	1.41
18F199	80P3*†	20	.1	600	1 1/16x1 13/16"	1.77
18F193	47P12	20	.005	1000	7/16x1¼"	1.44
18F194	47P13	20	.01	1000	7/16x1½"	1.56
18F195	47P14	20	.005	2500	1x1 9/16"	1.74
18F196	47P15	20	.01	2500	1x1 9/16"	1.86
18F197	47P16	20	.002	5000	1x1 9/16"	1.92

NEWARK stocks over 70,000 items for immediate off-the-shelf delivery.

TVA ATOM ELECTROLYTICS SPRAGUE

SPRAGUE
"ATOMS"
TYPE TVA

The only small size electrolytic especially designed for 85°C (185°F) operation on voltages to 450 working volts D.C. Unit is engineered to withstand extra high temperature, high ripple currents, plus high surge voltages. Metal case construction with outer insulating tube. Wt., 3 oz.

SINGLE UNITS 6 WVDC

Stock No.	TVA No.	Mfd.	D. x L.	1-24	25-49	50-99	100-249
18F955	1100	50	⅜"x1¼"	.57	.41	.32	.26
18F956	1101	100	½"x1⅛"	.72	.50	.39	.32
18F957	1102	250	⅝"x1 7⁄16"	.81	.64	.50	.40
18F958	1103	500	⅝"x2 3⁄16"	.93	.73	.57	.46
18F959	1104	1000	¾"x2 3⁄16"	1.14	.89	.70	.56
18F960	1105	1500	13⁄16"x2 11⁄16"	1.26	.98	.76	.61
18F151	1106	2000	13⁄16"x2 15⁄16"	1.38	1.08	.81	.67
12 WVDC							
18F961	1130	100	9⁄16"x1 3⁄16"	.72	.52	.40	.32
18F962	1131	250	⅝"x1 11⁄16"	.87	.68	.53	.43
18F153	1132	500	¾"x1 1⁄16"	1.02	.79	.62	.49
18F963	1133	1000	13⁄16"x2 3⁄16"	1.35	1.05	.82	.65
15 WVDC							
18F964	1160	100	⅝"x1 3⁄16"	.75	.52	.41	.33
18F965	1161	250	⅝"x1 11⁄16"	.83	.74	.60	.46
18F966	1162	500	11⁄16"x2 3⁄16"	1.05	.83	.64	.52
18F228	1163	1000	⅞"x2 3⁄16"	1.38	1.07	.84	.67
25 WVDC							
18F967	1201	2	⅜"x1¼"	.54	.39	.31	.25
18F968	1203	5	⅜"x1¼"	.60	.42	.32	.26
18F154	1204	10	⅜"x1¼"	.60	.42	.33	.27
18F155	1205	25	⅜"x1¼"	.60	.44	.35	.28
18F156	1206	50	9⁄16"x1 13⁄16"	.66	.47	.37	.30
18F157	1207	100	9⁄16"x1 11⁄16"	.81	.58	.45	.36
18F969	1208	250	¾"x1 11⁄16"	1.02	.79	.61	.49
18F159	1209	500	⅞"x2 3⁄16"	1.38	1.07	.84	.67
50 WVDC							
18F970	1300	1	⅜"x1¼"	.54	.39	.31	.25
18F971	1301	2	⅜"x1¼"	.54	.39	.31	.25
18F972	1303	5	⅜"x1¼"	.60	.42	.32	.26
18F163	1304	10	⅜"x1¼"	.60	.42	.33	.27
18F973	1305.5	20	7⁄16"x1⅜"	.60	.43	.34	.27
18F164	1306	25	7⁄16"x1⅜"	.63	.44	.35	.28
18F165	1308	50	9⁄16"x1 11⁄16"	.72	.52	.40	.32
18F166	1310	100	⅝"x1 11⁄16"	.84	.60	.47	.40
18F974	1311	150	¾"x1 11⁄16"	.83	.66	.51	.41
18F229	1312	250	15⁄16"x1 11⁄16"	1.05	.83	.64	.52
18F975	1315	500	1"x1 15⁄16"	1.44	1.11	.86	.69
150 WVDC							
18F976	1402	4	⅜"x1¼"	.60	.43	.33	.27
18F977	1403	5	⅜"x1¼"	.60	.43	.34	.27
18F978	1405	8	⅜"x1¾"	.63	.45	.35	.28
18F222	1406	10	⅜"x1¾"	.63	.46	.36	.29
18F979	1407	12	½"x1⅝"	.66	.47	.37	.29
18F980	1409	16	9⁄16"x1 11⁄16"	.69	.49	.38	.31
18F175	1410	20	9⁄16"x1 11⁄16"	.72	.50	.39	.32
18F981	1411	25	⅝"x1 11⁄16"	.75	.53	.41	.33
18F167	1412	30	⅝"x1 11⁄16"	.78	.55	.43	.35
18F176	1413	40	¾"x1 11⁄16"	.81	.58	.45	.36
18F230	1414	50	13⁄16"x1 11⁄16"	.84	.60	.47	.38
18F223	1415	60	⅞"x1 11⁄16"	.90	.63	.49	.40
18F168	1418	80	⅞"x1 15⁄16"	.96	.69	.54	.43
18F231	1420	100	⅞"x2 3⁄16"	1.05	.75	.58	.47
18F224	1422	150	1"x2 3⁄16"	1.14	.82	.64	.48
18F982	1423	200	1"x3 3⁄16"	1.32	.93	.72	.58
18F983	1425	300	1⅜"x3⅞"	1.53	1.25	.97	.78
200 WVDC							
18F984	1447	150	1⅜"x3⅜"	1.53	1.09	.85	.68
18F985	1480	200	1⅜"x3⅜"	1.74	1.25	.97	.78
250 WVDC							
18F986	1501	4	7⁄16"x1⅝"	.60	.48	.37	.30
18F987	1503	8	½"x1⅝"	.69	.54	.42	.34
18F232	1504	10	9⁄16"x1 11⁄16"	.72	.56	.43	.35
18F988	1505	12	9⁄16"x1 11⁄16"	.75	.57	.45	.36
18F989	1507	16	⅝"x1 11⁄16"	.78	.60	.47	.38
18F233	1508	20	11⁄16"x1 11⁄16"	.81	.64	.50	.40
18F990	1510	30	11⁄16"x2 3⁄16"	.87	.68	.53	.43
18F234	1511	40	¾"x2 3⁄16"	.93	.74	.57	.46
18F991	1512	50	¾"x2 3⁄16"	1.02	.81	.63	.50
18F992	1513	60	13⁄16"x2 3⁄16"	1.08	.84	.66	.53
300 WVDC							
18F993	1575	140	1⅜"x3⅜"	1.89	1.38	1.07	.86
350 WVDC							
18F994	1601	4	½"x1⅝"	.63	.49	.38	.31
18F995	1603	8	⅝"x1 11⁄16"	.72	.55	.43	.35
18F996	1604	10	11⁄16"x1 11⁄16"	.75	.59	.46	.37
18F997	1605	12	11⁄16"x1 11⁄16"	.78	.61	.47	.38
18F998	1607	16	¾"x1 11⁄16"	.84	.66	.51	.41
18F999	1608	20	13⁄16"x1 11⁄16"	.87	.68	.53	.42
18F1529	1610	30	13⁄16"x2 3⁄16"	.99	.77	.60	.48
18F1530	1611	40	⅞"x2 7⁄16"	1.05	.80	.62	.50
18F1531	1613	60	1"x2 7⁄16"	1.17	.91	.71	.57

400 NP WVDC

Stock No.	TVAN No.	Mfd.	D. x L.	1-24	25-49	50-99	100-249
18F1532	1650	10	1 1⁄16"x2 1⁄16"	.90	.78	.61	.49

SINGLE UNITS 450 WVDC

Stock No.	TVA No.	Mfd.	D. x L.	1-24	25-49	50-99	100-499
18F1533	1700	1	7⁄16"x1⅛"	.66	.51	.40	.32
18F1534	1701	2	7⁄16"x1⅝"	.66	.52	.41	.33
18F1535	1702	4	9⁄16"x1 11⁄16"	.69	.54	.42	.34
18F225	1704	8	11⁄16"x1 11⁄16"	.75	.60	.46	.37
18F169	1705	10	11⁄16"x1 11⁄16"	.78	.60	.47	.37
18F1536	1706	12	¾"x1 11⁄16"	.81	.64	.50	.40
18F187	1708	16	¾"x2 3⁄16"	.84	.68	.53	.42
18F170	1709	20	¾"x2 3⁄16"	.93	.73	.57	.46
18F171	1711	30	⅞"x2 3⁄16"	1.02	.80	.63	.50
18F172	1712	40	⅞"x2 11⁄16"	1.08	.83	.65	.52
18F226	1713	50	⅞"x3 3⁄16"	1.26	.98	.76	.61
18F227	1714	60	1"x3 11⁄16"	1.41	1.16	.90	.72
18F235	1716	80	1"x3 11⁄16"	1.68	1.11	.87	.69
18F1537	1718	100	1⅜"x4⅛"	1.92	1.69	1.31	1.05
475 WVDC							
18F1538	1802	10	¾"x1 15⁄16"	.81	.64	.50	.40
18F1539	1804	20	⅞"x2 7⁄16"	.96	.75	.58	.47
500 WVDC							
18F236	1902	8	⅞"x1 11⁄16"	.78	.61	.48	.38
18F1540	1903	10	⅞"x1 11⁄16"	.81	.64	.50	.40
18F237	1905	16	15⁄16"x2 3⁄16"	.90	.70	.55	.44
18F238	1906	20	1"x2 3⁄16"	.96	.75	.58	.47
600 WVDC							
18F240	1962	8	1"x3 1⁄16"	1.71	1.37	1.07	.85
18F241	1963	10	1"x3 1⁄16"	1.77	1.64	1.28	1.02
18F242	1965	16	1"x4 1⁄16"	2.07	1.87	1.46	1.17
18F243	1966	20	1"x4 1⁄16"	2.13	1.93	1.50	1.20
DUAL UNITS 25-25 WVDC							
18F1541	2210	10-10	⅞"x1 7⁄16"	.84	.72	.56	.45
50-50 WVDC							
18F1542	2315	10-10	⅞"x1 7⁄16"	.84	.73	.57	.46
150-150 WVDC							
18F1543	2415	8-8	⅞"x1 7⁄16"	.90	.75	.58	.47
18F1544	2420	16-16	⅞"x1 7⁄16"	1.08	.78	.61	.49
18F1545	2425	20-12	⅞"x1 7⁄16"	.96	.78	.61	.49
18F173	2428	20-20	⅞"x1 7⁄16"	.99	.80	.62	.50
18F183	2421	30-20	⅞"x1 11⁄16"	1.02	.82	.64	.51
18F188	2434	30-30	⅞"x1 11⁄16"	1.08	.85	.66	.53
18F1546	2438	40-20	⅞"x1 11⁄16"	1.05	.84	.65	.52
18F1547	2442	40-30	⅞"x1 15⁄16"	1.08	.86	.67	.54
18F178	2445	40-40	⅞"x1 15⁄16"	1.11	.88	.69	.55
18F185	2450	50-30	⅞"x1 15⁄16"	1.17	.88	.69	.55
18F1548	2453	50-50	⅞"x2 7⁄16"	1.26	.93	.72	.58
18F1549	2460	80-30	⅞"x2 7⁄16"	1.32	.94	.73	.59
18F1550	2461	80-40	⅞"x2 7⁄16"	1.32	.96	.75	.60
18F1551	2462	80-50	⅞"x2 15⁄16"	1.41	.99	.77	.62
18F1552	2464	100-100	1⅜"x3⅜"	1.92	1.11	.87	.69
18F1553	2467	200-5	1"x3⅞"	1.59	1.17	.91	.73
18F1554	2473	250-50	1⅜"x3⅛"	1.86	1.30	1.01	.81
250-250 WVDC							
18F1555	2515	20-20	⅞"x1 15⁄16"	1.11	.88	.69	.55
18F1556	2520	40-10	⅞"x2 3⁄16"	1.23	.94	.73	.58
18F1557	2525	80-10	15⁄16"x3 3⁄16"	1.53	1.35	1.23	.98
18F1558	2535	120-80	1⅜"x3⅞"	2.40	1.56	1.21	.97
350-350 WVDC							
18F1559	2640	140-5	1¼"x3⅞"	2.49	1.66	1.29	1.03
450-50 WVDC							
18F1560	2711	80-100	1⅜"x4⅜"	2.22	1.70	1.32	1.06
450-450 WVDC							
18F179	2720	8-8	⅞"x1 11⁄16"	1.12	.88	.69	.55
18F174	2722	10-10	⅞"x1 15⁄16"	1.11	.92	.72	.58
18F1561	2725	16-8	⅞"x2 3⁄16"	1.20	.98	.76	.61
18F180	2730	20-20	⅞"x2 15⁄16"	1.50	1.19	.92	.74
18F181	2740	40-40	1"x3 15⁄16"	2.04	1.79	1.40	1.12
18F1562	2743	50-30	1"x3 15⁄16"	2.04	1.90	1.48	1.18
TRIPLE UNITS 150-150-12 WVDC							
18F1563	3419	30-30-100	⅞"x1 15⁄16"	1.38	1.31	1.02	.82
150-150-25 WVDC							
18F1564	3415	20-20-20	⅞"x1 7⁄16"	1.47	1.25	.97	.78
18F1565	3422.9	40-20-20	⅞"x1 11⁄16"	1.52	1.29	1.00	.80
18F182	3423	40-30-20	⅞"x1 15⁄16"	1.50	1.30	1.02	.81
18F1566	3425	40-40-20	⅞"x2 3⁄16"	1.59	1.34	1.04	.83
18F184	3427	40-40-100	⅞"x2 7⁄16"	1.68	1.39	1.08	.87
18F1567	3430	50-30-20	⅞"x2 3⁄16"	1.59	1.34	1.04	.83
18F1568	3432	50-30-100	⅞"x2 7⁄16"	1.68	1.39	1.08	.87
150-150-150 WVDC							
18F186	3444	30-30-30	⅞"x2 3⁄16"	1.56	1.34	1.04	.84
DUAL UNITS (Separate Sections)—150-150 WVDC							
18F1569	TU-220	20-20	1"x2⅜"	1.23	.79	.62	.50
18F1570	TU-420	40-20	1 1⁄16"x2⅝"	1.32	.83	.65	.52
18F1571	TU-2120	120-120	1⅛"x5"	2.07	1.90	1.73	1.38
250-250 WVDC							
18F1572	TU-216	16-16	1"x2⅞"	1.32	.84	.65	.52
450-450 WVDC							
18F1573	TU-88	8-8	1 1⁄16"x3⅜"	1.29	.89	.69	.55
18F1574	TU-1616	16-16	1⅜"x3⅛"	1.68	1.10	.85	.68

SPRAGUE CAPACITORS

NEWARK CARRIES COMPLETE LINES

BLACK BEAUTY CAPACITORS DIFILM (MYLAR PAPER) MOLDED

For high humidity and high temperature operation up to 105°C. From 200v. through 1000v., the units will operate at 105°C. (221°F) with no voltage derating. From 1600v. thru 12,500v. they will operate at 85°C (185°F). Wt., 3 oz. Tolerance ±10%.

TYPE 2TM 200 VOLTS

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-up	Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-up
18F130	2TMS20	.02	⅜x1¼"	.15	.12	.09	.07	**18F135**	2TMP22	.22	⅝x1⅞"	.24	.21	.16	.13
18F131	2TMS47	.047	7⁄16x1¼"	.15	.13	.10	.08	**18F136**	2TMP25	.25	⅝x1⅞"	.24	.21	.17	.13
18F132	2TMS50	.05	7⁄16x1¼"	.15	.13	.10	.08	**18F137**	2TMP47	.47	¾x2¼"	.36	.34	.31	.25
18F133	2TMP10	.1	½x1½"	.21	.14	.11	.09	**18F138**	2TMP50	.5	¾x2¼"	.36	.35	.33	.27
18F134	2TMP15	.15	½x1½"	.21	.16	.13	.10	**18F139**	2TMM10	1.0	¾x2¼"	.63	.54	.42	.34

TYPE 4TM 400 VOLTS

18F089	4TMS10	.01	⅜x1¼"	.15	.11	.09	.07	**18F094**	4TMS68	.068	½x1½"	.21	.16	.11	.09
18F368	4TMS15	.015	⅜x1¼"	.15	.12	.09	.07	**18F095**	4TMP10	.1	½x1½"	.21	.16	.12	.10
18F090	4TMS20	.02	⅜x1¼"	.15	.12	.09	.08	**18F096**	4TMP15	.15	⅝x1⅞"	.24	.21	.17	.13
18F091	4TMS22	.022	⅜x1¼"	.18	.12	.09	.08	**18F372**	4TMP20	.2	⅝x1⅞"	.27	.23	.18	.14
18F369	4TMS25	.025	7⁄16x1¼"	.18	.12	.10	.08	**18F097**	4TMP22	.22	⅝x1⅞"	.27	.23	.18	.14
18F370	4TMS30	.03	7⁄16x1¼"	.18	.12	.10	.08	**18F098**	4TMP25	.25	¾x2¼"	.30	.28	.26	.21
18F371	4TMS40	.040	7⁄16x1¼"	.18	.13	.10	.08	**18F373**	4TMP47	.47	¾x2¼"	.45	.40	.31	.25
18F092	4TMS47	.047	7⁄16x1¼"	.18	.13	.10	.08	**18F099**	4TMP50	.5	¾x2¼"	.45	.43	.34	.27
18F093	4TMS50	.05	7⁄16x1¼"	.18	.14	.11	.09	**18F258**	4TMM10	1.0	1x2½"	.75	.69	.62	.49

TYPE 6TM 600 VOLTS

18F140	6TMT10	.0001	5⁄16x1"	.15	.11	.09	.07	**18F148**	6TMS15	.015	⅜x1¼"	.18	.13	.10	.08
18F141	6TMT25	.00025	5⁄16x1"					**18F107**	6TMS20	.02	7⁄16x1¼"	.18	.13	.10	.08
18F142	6TMT40	.0004	5⁄16x1"					**18F377**	6TMS22	.022	7⁄16x1¼"	.18	.13	.10	.08
18F143	6TMT50	.0005	5⁄16x1"					**18F108**	6TMS30	.03	7⁄16x1¼"	.21	.14	.11	.09
18F100	6TMD10	.001	5⁄16x1"					**18F378**	6TMS33	.033	7⁄16x1¼"	.21	.14	.11	.09
18F144	6TMD15	.0015	5⁄16x1"					**18F149**	6TMS35	.035	7⁄16x1¼"	.21	.15	.11	.09
18F101	6TMD20	.002	5⁄16x1"					**18F109**	6TMS40	.04	½x1½"	.21	.15	.12	.10
18F145	6TMD22	.0022	5⁄16x1"					**18F379**	6TMS47	.047	½x1½"	.24	.15	.12	.10
18F374	6TMD25	.0025	5⁄16x1"					**18F110**	6TMS50	.05	½x1½"	.24	.17	.13	.11
18F102	6TMD30	.003	5⁄16x1"					**18F111**	6TMS60	.06	½x1½"	.24	.17	.13	.11
18F375	6TMD33	.0033	5⁄16x1"					**18F380**	6TMS68	.068	½x1½"	.27	.17	.13	.11
18F103	6TMD40	.004	⅜x1¼"					**18F112**	6TMP10	.1	⅝x1⅞"	.27	.20	.16	.13
18F146	6TMD47	.0047	⅜x1¼"					**18F381**	6TMP15	.15	⅝x1⅞"	.30	.28	.22	.18
18F104	6TMD50	.005	⅜x1¼"					**18F382**	6TMP20	.2	¾x2¼"	.39	.38	.30	.24
18F105	6TMD60	.006	⅜x1¼"	.15	.12	.09	.07	**18F383**	6TMP22	.22	¾x2¼"	.42	.38	.30	.24
18F147	6TMD68	.0068	⅜x1¼"	.18	.12	.09	.07	**18F113**	6TMP25	.25	¾x2¼"	.45	.43	.40	.32
18F376	6TMD80	.008	⅜x1¼"	.18	.12	.10	.08	**18F384**	6TMP50	.5	1x2½"	.75	.67	.52	.42
18F106	6TMS10	.01	⅜x1¼"	.18	.12	.10	.08	**18F385**	6TM-M1	1.0	1x2½"	1.05	.89	.69	.56

TYPE MB 1600 VOLTS Designed for buffer operations

18F406	MB-D7	.007	½x1½"	.39	.33	.26	.21	**18F803**	MB-D4	.004	7⁄16x1¼"	.39	.32	.25	.20
18F407	MB-D8	.008	½x1½"	.39	.33	.26	.21	**18F804**	MB-D5	.005	7⁄16x1¼"	.39	.32	.25	.20
18F409	MB-S15	.015	⅝x1⅞"	.42	.37	.29	.23	**18F408**	MB-S1	.01	½x1½"	.42	.33	.26	.21
18F800	MB-D1	.001	⅜x1¼"	.39	.31	.24	.19	**18F805**	MB-S2	.02	⅝x1⅞"	.42	.37	.29	.23
18F801	MB-D2	.002	⅜x1¼"	.39	.32	.25	.20	**18F806**	MB-S4	.04	⅝x1⅞"	.42	.37	.29	.23
18F802	MB-D3	.003	7⁄16x1¼"	.39	.32	.25	.20								

TYPE TVM 6000 VOLTS *10,000 Volts

18F126	TVM356	.0005	½x1½"	.81	.47	.37	.29	**18F128**	TVM256	.005	⅝x1⅞"	.81	.52	.40	.32
18F127	TVM216	.001	½x1½"	.81	.40	.38	.30	**18F129**	TVM351*	.0005	⅝x1⅞"	.90	.52	.41	.33

TYPE CP70 "SQUEEZE-SEAM" OIL-FILLED CAPACITORS

These soldered "squeeze-seam" metal case capacitors are popular filter capacitors for power supplies. —55°C. to +85°C. operation. Tolerance: ±10% for universal operation.

TYPE "B" TERMINALS have silicone rubber or rubber-phenolic compression seals or ceramic-to-metal solder-seals.

600 DC WORKING VOLTS — **SPADE MOUNTING BRACKETS, Per Pair**

Stock No.	Type	Mfd.	Wid.xDep.xHt.	1-9	10-24	25-49	50-99	Stock No.	Type	Without* Cap.	With Cap.
18F276	CP70B1EF205K	2	1 13⁄16x1 1⁄16x3¼"	3.96	1.57	1.40	1.36	**18F918**	CP07SA4	.50	.15
18F277	CP70B1EF405K	4	2½x1 3⁄16x3⅞"	5.52	2.19	1.94	1.89	**18F921**	CP07SB4	.50	.15
18F278	CP70B1EF605K	6	3¾x1¼x3⅞"	6.55	2.60	2.32	2.26	**18F923**	CP07SC2	.50	.15
18F733	CP70B1EF805K	8	3¾x1¼x4¼"	8.14	3.23	2.90	2.83	**18F924**	CP07SC3	.50	.15
18F279	CP70B1EF106K	10	3¾x1¾x4"	8.78	3.48	3.21	3.15	**18F926**	CP07SD3	.50	.26

1,000 DC WORKING VOLTS — **SPADE MOUNTING BRACKETS, Per Pair**

18F281	CP70B1EG105K	1	1 13⁄16x1 1⁄16x2⅞"	3.68	1.46	1.33	1.30	**18F917**	CP07SA3	.50	.16
18F282	CP70B1EG205K	2	1 13⁄16x1 1⁄16x4¾"	4.73	1.88	1.71	1.67	**18F919**	CP07SA6	.50	.16
18F283	CP70B1EG405K	4	3¾x1¼x3⅞"	6.38	2.59	2.32	2.27	**18F923**	CP07SC2	.50	.15

TYPE "E" TERMINALS have ceramic or glass pillar insulators.

600 DC WORKING VOLTS — **SPADE MOUNTING BRACKETS, Per Pair**

18F734	CP70E1EF504K	.5	1 13⁄16x1 1⁄16x2¼"	2.92	1.23	1.07	1.04	**18F916**	CP07SA2	.50	.15

1,000 DC WORKING VOLTS — **SPADE MOUNTING BRACKETS, Per Pair**

18F735	CP70E1EG104K	.1	1 13⁄16x1 1⁄16x1⅝"	2.71	1.37	1.25	1.22	**18F915**	CP07SA1	.50	.15
18F736	CP70E1EG254K	.25	1 13⁄16x1 1⁄16x2¼"	3.06	1.42	1.27	1.24	**18F916**	CP07SA2	.50	.15
18F737	CP70E1EG105K	1	1 13⁄16x1 1⁄16x2⅞"	4.14	1.59	1.46	1.43	**18F917**	CP07SA3	.50	.16
18F738	CP70E1EG205K	2	1 13⁄16x1 1⁄16x4¾"	5.41	2.01	1.84	1.80	**18F919**	CP07SA6	.50	.16
18F739	CP70E1EG405K	4	3¾x1¼x3⅞"	6.84	2.72	2.45	2.40	**18F923**	CP07SC2	.50	.15
18F740	CP70E1EG605K	6	3¾x1¾x4"	8.46	3.37	3.04	2.97	**18F926**	CP07SD3	.50	.26
18F741	CP70E1EG805K	8	3¾x1¾x4¾"	9.06	3.94	3.61	3.54	**18F928**	CP07SD5	.50	.28
18F742	CP70E1EG156K	15	3¾x3 3⁄16x4¾"	13.15	5.99	5.62	5.54	**18F930**	CP07SG2	1.25	.60

1,500 DC WORKING VOLTS — **SPADE MOUNTING BRACKETS, Per Pair**

18F743	CP70E1EH205K	2	2½x1 3⁄16x4¾"	6.54	2.32	2.14	2.10	**18F922**	CP07SB6	.50	.15
18F744	CP70E1EH405K	4	3¾x1¾x4¼"	8.77	3.37	3.10	3.04	**18F927**	CP07SD4	.50	.26

2,000 DC WORKING VOLTS — **SPADE MOUNTING BRACKETS, Per Pair**

18F745	CP70E1EJ104K	.1	2½x1 3⁄16x2½"	4.13	2.02	1.84	1.80	**18F920**	CP07SB1	.50	.15
18F746	CP70E1EJ254K	.25	2½x1 3⁄16x2½"	4.47	2.19	1.96	1.91	**18F921**	CP07SB4	.50	.15
18F747	CP70E1EJ105K	1	2½x1 3⁄16x4¾"	5.67	2.75	2.50	2.44	**18F922**	CP07SB6	.50	.15
18F748	CP70E1EJ205K	2	3¾x1¼x4¾"	6.71	3.46	3.14	3.07	**18F923**	CP07SC2	.50	.15
18F749	CP70E1EJ405K	4	3¾x2¼x5⅛"	9.45	4.94	4.63	4.57	**18F929**	CP07SE6	.50	.28

ELECTROLYTIC CAPACITORS SPRAGUE

SPRAGUE TYPE TE LITTL-LYTICS

Ultra-small electrolytic capacitors made for transistor circuitry and other sub-min. applications. Temp. Range: —20°C to +85°C. Ultra-low leakage current. Clear Plastic Sleeves.

SPRAGUE
6 MFD
3 MFD

No.	Type	Mfd	WV DC	DxL	1-24	25-49	50-99	100-249
18F500	TE1010	5	1	3/16x1/2"	.73	.51	.40	.32
18F532	TE1050	1	3	3/16x1/2"				
18F533	TE1052	3	3	3/16x1/2"				
18F534	TE1052.1	4	3	3/16x1/2"				
18F535	TE1052.2	5	3	3/16x1/2"				
18F536	TE1052.3	6	3	3/16x1/2"				
18F537	TE1052.5	8	3	3/16x1/2"				
18F538	TE1053.5	15	3	1/4x1/2"				
18F539	TE1054	20	3	1/4x1/2"	.75	.53	.42	.33
18F501	TE1055	25	3	1/4x1/2"				
18F540	TE1056	35	3	1/4x1 1/16"				
18F541	TE1057	40	3	1/4x1 1/16"				
18F542	TE1058	50	3	1/4x1 1/16"				
18F543	TE1059	75	3	5/16x1 1/16"	.84	.56	.43	.35
18F544	TE1059.5	100	3	5/16x1 1/16"	.84	.61	.48	.38
18F502	TE1060	110	3	3/8x1 1/16"	.84	.61	.48	.38
18F545	TE1061	150	3	3/8x1 1/16"	.87	.61	.48	.38
18F546	TE1065	250	3	3/8x1 5/16"	.96	.61	.48	.38
18F547	TE1066	300	3	3/8x1 5/16"	.99	.66	.51	.41
18F548	TE1068	500	3	3/8x1 1/2"	1.05	.75	.58	.47
18F503	TE1080	1	6	3/16x1/2"	.75	.51	.40	.32
18F504	TE1081	2	6	3/16x1/2"	.75	.51	.40	.32
18F505	TE1082	3	6	3/16x1/2"	.75	.51	.40	.32
18F506	TE1083	4	6	3/16x1/2"	.75	.51	.40	.32
18F507	TE1084	5	6	3/16x1/2"	.75	.51	.40	.32
18F549	TE1085	6	6	3/16x1/2"	.75	.51	.40	.32
18F508	TE1086	8	6	3/16x1/2"	.81	.51	.40	.32
18F509	TE1087	10	6	1/4x1/2"	.81	.51	.40	.32
18F510	TE1089	15	6	1/4x1/2"	.81	.53	.42	.33
18F807	TE1090	20	6	1/4x1 1/16"	.81	.53	.42	.33
18F511	TE1091	25	6	1/4x1 1/16"	.81	.53	.42	.33
18F512	TE1092	30	6	1/4x1 1/16"	.84	.53	.42	.33
18F808	TE1093	35	6	1/4x1 1/16"	.84	.53	.42	.33
18F513	TE1095	40	6	1/4x1 1/16"	.84	.56	.43	.36
18F514	TE1100	50	6	5/16x1 1/16"	.84	.56	.43	.36
18F515	TE1101	60	6	5/16x1 1/16"	.84	.61	.48	.38
18F809	TE1101.5	75	6	3/8x1 1/16"	.87	.61	.48	.38
18F810	TE1103	150	6	3/8x1 5/16"	.93	.61	.48	.38
18F811	TE1104	200	6	3/8x1 1/4"	.96	.63	.49	.40
18F812	TE1105	250	6	3/8x1 1/4"	1.02	.66	.54	.41
18F813	TE1106	300	6	3/8x1 1/2"	1.08	.69	.42	.43
18F516	TE1116	15	10	1/4x1 1/16"	.81	.53	.43	.33
18F517	TE1118	25	10	1/4x1 1/16"	.81	.56	.43	.35
18F814	TE1119	50	10	3/8x1 1/16"	.92	.61	.48	.32
18F815	TE1119.3	100	10	3/8x1 3/16"	1.02	.61	.48	.38
18F816	TE1119.6	200	10	3/8x1 1/4"	1.20	.69	.54	.38
18F817	TE1120	1	12	3/16x1/2"	.75	.51	.40	.32
18F818	TE1121	2	12	3/16x1/2"	.75	.51	.40	.32
18F819	TE1122	3	12	3/16x1/2"	.75	.51	.40	.32
18F820	TE1123	4	12	3/16x1/2"	.75	.51	.40	.32
18F821	TE1127.1	6	12	1/4x1/2"	.81	.51	.40	.32
18F822	TE1127.3	8	12	1/4x1/2"	.81	.53	.42	.33
18F823	TE1129	15	12	1/4x1 1/16"	.84	.53	.42	.33
18F824	TE1130	20	12	1/4x1 1/16"	.84	.53	.42	.33
18F825	TE1131	25	12	1/4x1 1/16"	.84	.56	.43	.35
18F826	TE1132	35	12	5/16x1 1/16"	.87	.56	.43	.35
18F827	TE1133	50	12	3/8x1 1/16"	.93	.61	.48	.38
18F828	TE1134	75	12	3/8x1 3/16"	.99	.61	.48	.38
18F829	TE1135	100	12	3/8x1 3/16"	1.05	.61	.48	.38
18F830	TE1136	150	12	3/8x1 1/4"	1.14	.65	.50	.40
18F831	TE1137	200	12	3/8x1 1/4"	1.23	.69	.54	.43
18F832	TE1138	250	12	3/8x1 1/2"	1.32	.72	.56	.45
18F833	TE1148	1	15	3/16x1/2"	.75	.51	.40	.32
18F834	TE1149	2	15	3/16x1/2"	.75	.51	.40	.32
18F835	TE1150	3	15	3/16x1/2"	.75	.51	.40	.32
18F836	TE1151	4	15	3/16x1/2"	.75	.51	.40	.32
18F520	TE1152	5	15	1/4x1/2"	.78	.51	.40	.32
18F837	TE1153	6	15	1/4x1/2"	.84	.51	.40	.32
18F838	TE1154	8	15	1/4x1/2"	.84	.53	.42	.33
18F521	TE1155	10	15	1/4x1/2"	.84	.53	.42	.33
18F839	TE1156	15	15	1/4x1 1/16"	.84	.53	.42	.33
18F522	TE1157	20	15	1/4x1 1/16"	.87	.53	.42	.33
18F840	TE1157.1	25	15	5/16x1 1/16"	.87	.56	.43	.35
18F523	TE1158	30	15	5/16x1 1/16"	.90	.56	.43	.35
18F841	TE1159	35	15	3/8x1 1/16"	.93	.56	.43	.35
18F842	TE1160	50	15	3/8x1 1/16"	.96	.61	.48	.38
18F843	TE1161	75	15	3/8x1 3/16"	1.02	.61	.48	.38
18F844	TE1162	100	15	3/8x1 5/16"	1.08	.61	.48	.38
18F845	TE1163	150	15	3/8x1 1/4"	1.17	.66	.51	.41
18F846	TE1164	200	15	3/8x1 1/2"	1.26	.72	.56	.45
18F847	TE1200	1	25	1/4x1 1/16"	.75	.51	.40	.32
18F848	TE1201	2	25	1/4x1 1/16"	.78	.51	.40	.32
18F849	TE1201.1	3	25	1/4x1 1/16"	.78	.51	.40	.32
18F850	TE1201.2	4	25	1/4x1 1/16"	.78	.51	.40	.32
18F524	TE1202	5	25	1/4x1 1/16"	.84	.53	.42	.33
18F525	TE1203	6	25	1/4x1 1/16"	.84	.53	.42	.33
18F851	TE1203.5	8	25	1/4x1 1/16"	.87	.53	.42	.33
18F526	TE1204	10	25	1/4x1 1/16"	.87	.53	.42	.33
18F527	TE1205	15	25	5/16x1 1/16"	.87	.56	.43	.35
18F528	TE1206	20	25	3/8x1 1/16"	.90	.61	.48	.38
18F852	TE1207	25	25	3/8x1 1/16"	.93	.61	.48	.38
18F853	TE1208	35	25	3/8x1 3/16"	.99	.61	.48	.38
18F854	TE1209	50	25	3/8x1 5/16"	1.08	.61	.48	.38
18F855	TE1210	75	25	3/8x1 1/4"	1.17	.65	.50	.40
18F856	TE1211	100	25	3/8x1 1/2"	1.26	.67	.52	.42
18F857	TE1300	1	50	1/4x1 1/16"	.78	.59	.46	.37
18F858	TE1301	2	50	1/4x1 1/16"	.81	.59	.46	.37
18F859	TE1302	3	50	1/4x1 1/16"	.81	.59	.46	.37
18F860	TE1302.1	4	50	1/4x1 1/16"	.81	.59	.46	.37
18F529	TE1303	5	50	1/4x1 1/16"	.87	.59	.46	.37
18F861	TE1303.1	6	50	5/16x1 1/16"	.87	.59	.46	.37
18F862	TE1303.3	8	50	5/16x1 1/16"	.90	.60	.47	.37
18F530	TE1304	10	50	5/16x1 1/16"	.90	.60	.47	.37
18F863	TE1304.2	15	50	5/16x1 1/16"	.81	.61	.48	.38
18F531	TE1305	20	50	3/8x1 3/16"	.90	.61	.48	.38
18F864	TE1306	35	50	3/8x1 1/4"	1.02	.63	.49	.40
18F865	TE1307	50	50	3/8x1 1/2"	1.11	.65	.51	.41
18F866	TE1400	1	100	3/8x1 5/16"	.81	.60	.47	.37
18F867	TE1401	2	100	3/8x1 5/16"	.84	.60	.47	.37
18F868	TE1402	3	100	3/8x1 5/16"	.84	.60	.47	.37
18F869	TE1403	4	100	3/8x1 5/16"	.84	.60	.47	.37
18F870	TE1404	5	100	3/8x1 5/16"	.90	.60	.47	.38
18F871	TE1405	6	100	3/8x1 5/16"	.90	.60	.47	.38
18F872	TE1406	8	100	3/8x1 5/16"	.93	.61	.47	.38
18F873	TE1407	10	100	3/8x1 5/16"	.93	.61	.47	.38
18F874	TE1408	15	100	3/8x1 1/4"	.93	.62	.48	.39
18F875	TE1409	20	100	3/8x1 1/2"	.96	.63	.49	.39
18F876	TE1500	1	150	3/8x1 5/16"	.84	.63	.49	.39
18F877	TE1501	2	150	3/8x1 5/16"	.87	.63	.49	.39
18F878	TE1502	3	150	3/8x1 5/16"	.87	.63	.49	.39
18F879	TE1503	4	150	3/8x1 5/16"	.87	.63	.49	.39
18F880	TE1504	5	150	3/8x1 5/16"	.93	.63	.49	.39
18F881	TE1505	6	150	3/8x1 1/4"	.93	.63	.49	.39
18F882	TE1506	8	150	3/8x1 1/4"	.96	.63	.49	.40
18F883	TE1507	10	150	3/8x1 1/4"	.96	.63	.49	.40
18F884	TE1508	12	150	3/8x1 1/2"	.96	.65	.51	.41

MINIATURIZED DISK TYPES FOR TRANSISTORIZED CIRCUITRY

Tiny, tough ceramic capacitors designed for by-pass and coupling application. Low self inductance and flat plate construction permits higher self-resonant frequency and high by-pass efficiency in all TV and transistorized circuitry. Assure good performance under severe condition of humidity and vibration. Size: Diameter from .275" to .270".

Stock No.	Mfr's No.	Volts	Mfd.	1-24	25-99	100-249	250-499	500-999
18F932	TG-D50	50	.005	.27	.22	.18	.14	.11
18F933	TG-S10	50	.01	.39	.31	.26	.20	.15
18F934	TG-S20	50	.02	.39	.31	.26	.20	.15
18F935	TG-S25	50	.025	.39	.31	.26	.20	.15
18F936	TG-S30	50	.03	.39	.31	.26	.20	.15
18F937	TG-S50	50	.05	.42	.34	.28	.21	.16
18F938	TG-P10	50	.1	.55	.43	.36	.27	.21
18F939	TH-D50	100	.005	.27				
18F940	TH-S10	100	.01	.39				
18F941	TH-S20	100	.02	.39	NET			
18F942	TH-S25	100	.025	.39				
18F943	TH-S30	100	.03	.39	EA.			
18F944	TH-S50	100	.05	.42				
18F945	TH-P10	100	.1	.54				

HYPERCON CERAMIC DISCS

Ultra-miniature ceramic discs ideal for use in transistorized circuitry. Designed for bypass and coupling applications but particularly well-suited for any low voltage use where high capacitance and low power factor are important consideration. Superior to electrolytic capacitors of similar capacitance values because of the very low power factor of Hypercon Capacitors. Capacitance Tolerance: GMV.

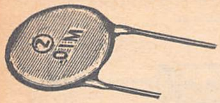
3 VOLTS DC

Stock No.	Mfrs. No.	Mfd.	Size	NET EA.
18F946	HY-120	.1	.225"	.54
18F947	HY-125	.22	.275"	.33
18F948	HY-130	.47	.400"	.33
18F949	HY-135	1.0	.595"	.45
18F950	HY-150	2.2	.840"	.54
10 VOLTS DC				
18F951	HY-310	.047	.275"	.33
18F952	HY-320	.1	.400"	.33
18F953	HY-325	.22	.550"	.45
18F954	HY-330	.47	.840"	.54

Industrial Buyers — Quantity Prices Available on Sprague Capacitors

SPRAGUE CAPACITORS

HIGH-K TYPES



Designed for By-Pass and Coupling applications where additional capacitance will not affect circuit operation. Combine small electrical value with high voltage rating in smallest physical size 5HK-S15 thru 5HK-P10, 5HK-2S20 500 WVDC. All other 5HK are 1000 WVDC. Capac. Tol.: GMV. Size: ½x½x3/16".

SINGLE UNITS

Stock No.	Mfr's. No.	Capacitance µF	1-24	25-99	100-249	250-499	500-999
18F1575	5HK-D10	.001	.15	.12	.10	.08	.06
18F1576	5HK-D15	.0015					
18F1577	5HK-D20	.002					
18F1578	5HK-D22	.0022					
18F1579	5HK-D25	.0025					
18F1580	5HK-D33	.0033					
18F1581	5HK-D40	.004					
18F1582	5HK-D47	.0047					
18F1583	5HK-D50	.005					
18F1584	5HK-D68	.0068					
18F1585	5HK-S10	.01	.18	.15	.12	.09	.07
18F1586	5HK-S15	.015	.24	.19	.16	.12	.09
18F1587	5HK-S20	.02	.36	.29	.24	.18	.14
18F1588	5HK-S22	.022	.39	.31	.26	.20	.15
18F1589	5HK-S25	.025	.39	.31	.26	.20	.15

SINGLE UNITS Cont.

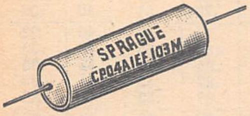
Stock No.	Mfr's. No.	Capacitance µF	1-24	25-99	100-249	250-499	500-999
18F1590	5HK-S30	.03	.39	.31	.26	.20	.15
18F1591	5HK-S40	.04	.42	.34	.28	.21	.16
18F1592	5HK-S50	.05	.42	.34	.28	.21	.16
18F1593	5HK-P10	.1	.96	.76	.64	.48	.36

DUAL UNITS

18F1594	5HK-2D10	2 x .001	.24	.19	.16	.12	.09
18F1595	5HK-2D15	2 x .0015	.24	.19	.16	.12	.09
18F1596	5HK-2D20	2 x .002	.24	.19	.16	.12	.09
18F1597	5HK-2D22	2 x .0022	.24	.19	.16	.12	.09
18F1598	5HK-2D40	2 x .004	.26	.22	.18	.14	.11
18F1599	5HK-2D47	2 x .0047	.27	.22	.18	.14	.11
18F1600	5HK-2S10	2 x .01	.30	.24	.20	.15	.12
18F1601	5HK-2S20	2 x .02	.42	.34	.28	.21	.16

"JAN" TYPE CAPACITORS TO LATEST MIL-C-25 SPECIFICATIONS

CP04 MIL-C-25 CAPACITORS



Impregnation with Vitamin Q assures capacitors will exceed MIL-C-25. Inserted tab construction. Positive hermetic closure is assured by glass-to-metal solder-seal terminals. Plain metal case. Operates from —55°C to 125°C tolerance ±10%.

600 WVDC

Stk. No.	Type	Mfd.	Sz.*	1-9	10-24	25-49	50-99	100-499
18F1150	CP04A1KF102K	.001	A	1.68	1.26	.95	.63	.51
18F1151	CP04A1KF222K	.0022	A	1.68	1.26	.95	.63	.51
18F1152	CP04A1KF104K	.1	M	2.12	1.59	1.19	.80	.64

400 WVDC

18F1153	CP04A1KE103K	.01	A	1.72	1.29	.97	.65	.52
18F1154	CP04A1KE473K	.047	F	1.85	1.39	1.04	.70	.56
18F1155	CP04A1KE104K	.1	H	1.94	1.46	1.09	.73	.59
18F1156	CP04A1KE224K	.22	N	2.25	1.69	1.27	.85	.68
18F1157	CP04A1KE105K	1.0	BB	3.77	2.83	2.12	1.42	1.13

200 WVDC

18F1158	CP04A1KC223K	.022	A	1.65	1.24	.93	.62	.50
18F1159	CP04A1KC473K	.047	C	1.72	1.29	.97	.65	.52
18F1160	CP04A1KC683K	.068	C	1.76	1.32	.99	.66	.53
18F1161	CP04A1KC104K	.1	F	1.81	1.36	1.02	.68	.55

100 WVDC

18F1162	CP04A1KB333K	.033	A	1.63	1.23	.92	.62	.49
18F1163	CP04A1KB104K	.1	C	1.76	1.32	.99	.66	.53

CP05 MIL-C-25 CAPACITORS

Exactly the same as the CP04, but comes with insulating sleeve. Sizes differ as listed from CP04. All —55°C to 85°C except (†) —55°C to 125°C.

600 WVDC

Stk. No.	Type	Mfd.	Sz.*	1-9	10-24	25-49	50-99	100-499
18F1164	CP05A1EF102K	.001	B	1.63	1.22	.92	.61	.49

400 WVDC

18F1165	CP05A1EE103K	.01	B	1.61	1.21	.91	.61	.49
18F1166	CP05A1EE333K	.033	E	1.72	1.29	.97	.65	.52
18F1167	CP05A1EE473K	.047	J	1.77	1.33	1.00	.67	.53
18F1168†	CP05A1KE473K	.047	J	1.94	1.46	1.09	.73	.59
18F1169	CP05A1EE154K	.15	P	2.17	1.63	1.22	.82	.62
18F1170†	CP05A1KE154K	.15	L	2.34	1.75	1.32	.88	.70
18F1171	CP05A1EE224K	.22	R	2.30	1.73	1.30	.87	.69
18F1172	CP05A1EE334K	.33	T	2.32	1.74	1.31	.87	.70
18F1173	CP05A1EE474K	.47	W	2.85	2.14	1.61	1.07	.86
18F1174	CP05A1EE684K	.68	Z	3.77	2.83	2.12	1.42	1.13
18F1175	CP05A1EE105K	1.0	CC	3.94	2.96	2.22	1.48	1.19

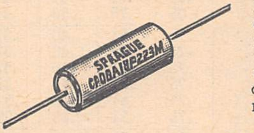
200 WVDC

18F1176	CP05A1EC223K	.022	B	1.72	1.29	.97	.65	.52
18F1177	CP05A1EC473K	.047	E	1.65	1.24	.93	.62	.50
18F1178†	CP05A1KC473K	.047	E	1.80	1.35	1.01	.68	.54

100 WVDC

18F1179	CP05A1EB684K	.68	R	2.39	1.79	1.35	.90	.72
18F1180†	CP05A1KB684K	.68	R	2.46	1.85	1.39	.93	.74

CP08 MIL-C-25 CAPACITORS



Exceeds MIL-C-25 specifications due to special Vitamin Q impregnation. Comes in plain metal case which is hermetically sealed with glass-to-metal solder-seal terminals. Two terminals. Temperature range —55°C to +85°C.

600 WVDC

Stk. No.	Type	Mfd.	Sz.*	1-9	10-24	25-49	50-99	100-499
18F1181	CP08A1EF102K	.001	A	1.61	1.21	.91	.61	.49
18F1182	CP08A1EF152K	.0015	A	1.61	1.21	.91	.61	.49

400 WVDC

18F1183	CP08A1EE332K	.0033	A	1.59	1.19	.90	.60	.48
18F1184	CP08A1EE333K	.033	F	1.68	1.26	.95	.63	.51
18F1185	CP08A1EE104K	.1	M	1.90	1.42	1.07	.71	.57

200 WVDC

18F1186	CP08A1EC223K	.022	C	1.61	1.21	.91	.61	.49
18F1187	CP08A1EC333K	.033	C	1.63	1.23	.92	.62	.49
18F1188	CP08A1EC224K	.22	M	2.03	1.52	1.14	.76	.61
18F1189	CP08A1EC105K	1.0	X	2.95	2.22	1.66	1.11	.89

CP09 MIL-C-25 CAPACITORS

Same as CP08, but with insulating sleeve. Sizes differ from CP08 as listed.

600 WVDC

Stk. No.	Type	Mfd.	Sz.*	1-9	10-24	25-49	50-99	100-499
18F1190	CP09A1EF472K	.0047	E	1.72	1.29	.97	.65	.52
18F1191	CP09A1EF682K	.0068	E	1.74	1.31	.98	.66	.53
18F1192	CP09A1EF153K	.015	J	1.79	1.35	1.01	.68	.54

400 WVDC

Stk. No.	Type	Mfd.	Sz.*	1-9	10-24	25-49	50-99	100-499
18F1193	CP09A1EE473K	.047	K	1.84	1.38	1.04	.69	.55
18F1194	CP09A1EE104K	.1	P	1.99	1.50	1.12	.75	.60
18F1195	CP09A1EE334K	.33	V	2.48	1.86	1.40	.93	.75

200 WVDC

Stk. No.	Type	Mfd.	Sz.*	1-9	10-24	25-49	50-99	100-499
18F1196	CP09A1EC472K	.0047	B	1.60	1.20	.90	.60	.48
18F1197	CP09A1EC223K	.022	E	1.68	1.26	.94	.63	.51
18F1198	CP09A1EC333K	.033	E	1.70	1.30	.96	.64	.51
18F1199	CP09A1EC473K	.047	J	1.79	1.35	1.01	.68	.54
18F1200	CP09A1EC474K	.47	S	2.34	1.76	1.32	.88	.71
18F1201	CP09A1EC684K	.68	V	2.74	2.06	1.54	1.03	.83
18F1202	CP09A1EC105K	1.0	Z	3.11	2.34	1.75	1.17	.94

100 WVDC

Stk. No.	Type	Mfd.	Sz.*	1-9	10-24	25-49	50-99	100-499
18F1203	CP09A1EB103K	.01	B	1.70	1.27	.96	.64	.51
18F1204	CP09A1EB153K	.015	B	1.65	1.24	.93	.62	.50
18F1205	CP09A1EB104K	.1	J	1.84	1.38	1.04	.69	.55
18F1206	CP09A1EB154K	.15	K	1.88	1.41	1.06	.71	.57
18F1207	CP09A1EB224K	.22	L	1.88	1.41	1.06	.71	.57
18F1208	CP09A1EB334K	.33	P	2.17	1.63	1.22	.82	.65
18F1209	CP09A1EB105K	1.0	V	2.70	2.02	1.52	1.01	.81

*SIZES FOR TYPES ABOVE

A-.235x¾"
B-.298x13/16"
C-.312x⅞"
D-.375x⅞"
E-.375x15/16"
F-.400x⅞"
G-.400x1⅛"
H-.400x1⅜"
J-.463x15/16"
K-.463x1 3/16"
L-.463x1 7/16"
M-.562x1⅛"
N-.562x1⅜"
P-.625x1 3/16"
R-.625x1 7/16"
S-.625x1 11/16"
T-.625x1 15/16"
U-.670x1⅝"
V-.733x1 11/16"
W-.733x1 15/16"
X-.750x2⅛"
Z-.813x2 3/16"
AA-.813x2 7/16"
BB-1.00x1⅞"
CC-1.063x1 15/16"

CAPACITORS SPRAGUE

SUBMINIATURE—TYPE 96P—VITAMIN Q

Inserted tab construction. Glass-to-metal hermetically sealed. Operates from —55°C to +125°C. Terminals are insulated from metal case. Impregnated with vitamin Q. Tolerance of ±10%. Meets "latest" MIL-C-25 specs. Can be had in grounded or ungrounded cases. High insulation resistance.

100 WVDC — ± 10% TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499
18F1000	96P10291S2	.001	A	1.65	1.24	.93	.62	.50
18F1004	96P15291S2	.0015	A	1.65	1.24	.93	.62	.50
18F1009	96P22291S2	.0022	A	1.65	1.24	.93	.62	.50
18F1013	96P33291S2	.0033	A	1.65	1.24	.93	.62	.50
18F1018	96P47291S2	.0047	A	1.67	1.25	.94	.63	.50
18F1022	96P68291S2	.0068	A	1.67	1.25	.94	.63	.50
18F475	96P10391S2	.01	A	1.67	1.25	.94	.63	.50
18F1027	96P15391S2	.015	A	1.67	1.25	.94	.63	.50
18F1032	96P22391S2	.022	B	1.67	1.25	.94	.63	.50
18F1034	96P33391S2	.033	C	1.63	1.22	.92	.61	.49
18F1039	96P47391S2	.047	D	1.63	1.22	.92	.61	.49
18F1040	96P68391S2	.068	D	1.72	1.29	.97	.64	.52
18F300	96P10491S2	.1	D	1.76	1.32	.99	.66	.53
18F1044	96P15491S2	.15	E	1.85	1.39	1.04	.69	.55
18F1049	96P22491S2	.22	F	1.85	1.39	1.04	.69	.55
18F1051	96P33491S2	.33	G	2.11	1.58	1.19	.79	.63
18F301	96P47491S2	.47	H	2.24	1.68	1.26	.84	.67
18F1056	96P68491S2	.68	J	2.33	1.75	1.31	.88	.70
18F471	96P10591S2	1.00	K	2.38	1.78	1.34	.89	.71

200 WVDC — ± 10% TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499
18F1001	96P10292S2	.001	C	1.58	1.19	.89	.59	.48
18F1005	96P15292S2	.0015	C	1.58	1.19	.89	.59	.48
18F1010	96P22292S2	.0022	C	1.58	1.19	.89	.59	.48
18F1014	96P33292S2	.0033	C	1.63	1.22	.92	.61	.49
18F1019	96P47292S2	.0047	C	1.63	1.22	.92	.61	.49
18F1023	96P68292S2	.0068	C	1.63	1.22	.92	.61	.49
18F476	96P10392S2	.01	C	1.63	1.22	.92	.61	.49
18F1028	96P15392S2	.015	C	1.65	1.24	.93	.62	.50
18F477	96P22392S2	.022	C	1.65	1.24	.93	.62	.50
18F1035	96P33392S2	.033	D	1.67	1.25	.94	.63	.50
18F478	96P47392S2	.047	D	1.72	1.29	.97	.64	.52
18F1041	96P68392S2	.068	D	1.76	1.32	.99	.66	.53
18F302	96P10492S2	.1	E	1.80	1.35	1.02	.68	.54
18F1045	96P15492S2	.15	F	1.83	1.37	1.03	.69	.55
18F479	96P22492S2	.22	G	2.00	1.50	1.13	.75	.60
18F1052	96P33492S2	.33	H	2.16	1.62	1.21	.81	.65
18F303	96P47492S2	.47	J	2.29	1.72	1.29	.86	.69
18F1057	96P68492S2	.68	K	2.42	1.82	1.36	.91	.73
18F480	96P10592S2	1.00	L	2.90	2.18	1.63	1.09	.87

400 WVDC — ± 10% TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499
18F1003	96P10294S2	.001	C	1.65	1.24	.93	.62	.50
18F1007	96P15294S2	.0015	C	1.65	1.24	.93	.62	.50
18F1012	96P22294S2	.0022	C	1.65	1.24	.93	.62	.50
18F1016	96P33294S2	.0033	C	1.69	1.27	.95	.64	.51
18F1021	96P47294S2	.0047	C	1.69	1.27	.95	.64	.51
18F1025	96P68294S2	.0068	C	1.69	1.27	.95	.64	.51
18F481	96P10394S2	.01	C	1.72	1.29	.97	.64	.52
18F1030	96P15394S2	.015	D	1.75	1.32	.99	.66	.53
18F482	96P22394S2	.022	D	1.78	1.34	1.00	.67	.54
18F1037	96P33394S2	.033	D	1.78	1.34	1.00	.67	.54
18F483	96P47394S2	.047	E	1.85	1.39	1.04	.69	.55
18F1043	96P68394S2	.068	F	1.89	1.42	1.06	.71	.57
18F304	96P10494S2	.1	G	1.94	1.45	1.09	.73	.58
18F1047	96P15494S2	.15	H	2.11	1.58	1.19	.79	.63
18F305	96P22494S2	.22	J	2.24	1.68	1.26	.84	.67
18F1054	96P33494S2	.33	K	2.29	1.72	1.39	.86	.69
18F306	96P47494S2	.47	L	2.73	2.05	1.54	1.02	.82
18F1059	96P68494S2	.68	M	3.63	2.72	2.04	1.36	1.09
18F486	96P10594S2	1.00	N	3.76	2.82	2.12	1.41	1.13

600 WVDC — ± 10% TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499
18F307	96P10296S2	.001	C	1.67	1.25	.94	.63	.50
18F1008	96P15296S2	.0015	C	1.67	1.25	.94	.63	.50
18F308	96P22296S2	.0022	C	1.67	1.25	.94	.63	.50
18F1017	96P33296S2	.0033	C	1.72	1.29	.97	.64	.52
18F309	96P47296S2	.0047	C	1.72	1.29	.97	.64	.52
18F310	96P68296S2	.0068	C	1.72	1.29	.97	.64	.52
18F311	96P10396S2	.01	D	1.76	1.32	.99	.66	.53
18F1031	96P15396S2	.015	D	1.80	1.35	1.02	.68	.54
18F312	96P22396S2	.022	D	1.80	1.35	1.02	.68	.54
18F1038	96P33396S2	.033	E	1.87	1.40	1.05	.70	.56
18F313	96P47396S2	.047	F	1.89	1.42	1.06	.71	.57
18F314	96P68396S2	.068	G	1.98	1.49	1.11	.74	.59
18F315	96P10496S2	.1	H	2.12	1.58	1.19	.79	.63
18F1048	96P15496S2	.15	J	2.20	1.65	1.24	.83	.66
18F316	96P22496S2	.22	K	2.38	1.78	1.34	.89	.71
18F1055	96P33496S2	.33	L	2.64	1.98	1.49	.99	.79
18F317	96P47496S2	.47	M	2.97	2.23	1.67	1.11	.89
18F1060	96P68496S2	.68	N	3.70	2.77	2.08	1.39	1.11

SUBMINIATURE—TYPE 196P—VITAMIN Q

Extended foil construction. Leads insulated from case. Hermetically sealed in metal case. Electrically and mechanically designed to meet stringent operating requirements. Tolerance ±10%. Operating temp.: —55°C to +125° C. Vitamin Q impregnated. Meet "latest" MIL-C-25A specs.

100 WVDC — ± 10% TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499
18F900	196P10291S2	.001	A	1.68	1.26	.95	.63	.51
18F1064	196P15291S2	.0015	A					
18F1069	196P22291S2	.0022	A					
18F901	196P33291S2	.0033	A					
18F902	196P47291S2	.0047	A					
18F1079	196P68291S2	.0068	B					
18F1084	196P10391S2	.01	C					
18F1088	196P15391S2	.015	C					
18F1093	196P22391S2	.022	D	1.72	1.29	.97	.65	.52
18F1098	196P33391S2	.033	D	1.77	1.32	.99	.66	.53
18F903	196P47391S2	.047	D	1.81	1.36	1.02	.68	.55
18F1104	196P68391S2	.068	E	1.81	1.36	1.02	.68	.55
18F1109	196P10491S2	.1	E	1.85	1.39	1.04	.70	.56
18F1111	196P15491S2	.15	F	1.85	1.39	1.04	.70	.56
18F1116	196P22491S2	.22	G	1.98	1.49	1.12	.75	.60
18F1121	196P33491S2	.33	H	2.20	1.65	1.24	.83	.66
18F1126	196P47491S2	.47	J	2.29	1.72	1.29	.86	.69
18F1131	196P68491S2	.68	T	2.47	1.85	1.39	.93	.74
18F1134	196P10591S2	1.00	U	2.64	1.98	1.49	.99	.80

400 WVDC — ± 10% TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499
18F1063	196P10294S2	.001	C	1.74	1.31	.98	.66	.53
18F1067	196P15294S2	.0015	C	1.74	1.31	.98	.66	.53
18F1072	196P22294S2	.0022	C	1.74	1.31	.98	.66	.53
18F907	196P33294S2	.0033	C	1.76	1.32	.99	.66	.53
18F1077	196P47294S2	.0047	D	1.85	1.39	1.04	.70	.56
18F1082	196P68294S2	.0068	D	1.90	1.42	1.07	.71	.57
18F1087	196P10394S2	01	D	1.90	1.42	1.07	.71	.57
18F1091	196P15394S2	.015	D	1.90	1.42	1.07	.71	.57
18F1096	196P22394S2	.022	E	1.94	1.46	1.09	.73	.59
18F1101	196P33394S2	.033	E	1.94	1.46	1.09	.73	.59
18F908	196P47394S2	.047	F	1.98	1.49	1.12	.75	.60
18F1107	196P68394S2	.068	G	1.98	1.49	1.12	.75	.60
18F909	196P10494S2	10	H	2.12	1.59	1.19	.80	.64
18F1114	196P15494S2	15	J	2.20	1.65	1.24	.83	.66
18F1119	196P22494S2	.22	T	2.34	1.75	1.32	.88	.70
18F1124	196P33494S2	.33	U	2.56	1.92	1.44	.96	.77
18F1129	196P47494S2	.47	M	2.95	2.22	1.66	1.11	.89

200 WVDC — ± 10% TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499
18F1061	196P10292S2	.001	C	1.65	1.24	.93	.62	.50
18F1065	196P15292S2	.0015	C	1.65	1.24	.93	.62	.50
18F1070	196P22292S2	.0022	C	1.65	1.24	.93	.62	.50
18F1073	196P33292S2	.0033	C	1.70	1.28	.96	.64	.51
18F1076	196P47292S2	.0047	C	1.70	1.28	.96	.64	.51
18F1080	196P68292S2	.0068	C	1.72	1.29	.97	.65	.52
18F1085	196P10392S2	.01	D	1.81	1.36	1.02	.68	.55
18F1089	196P15392S2	.015	D	1.80	1.35	1.02	.68	.55
18F1094	196P22392S2	.022	D	1.85	1.39	1.04	.70	.55
18F1099	196P33392S2	.033	D	1.85	1.39	1.04	.70	.55
18F1103	196P47392S2	.047	E	1.90	1.42	1.07	.71	.57
18F1105	196P68392S2	.068	E	1.90	1.42	1.07	.71	.57
18F904	196P10492S2	.10	F	1.92	1.44	1.08	.72	.58
18F1112	196P15492S2	.15	G	1.98	1.49	1.12	.75	.60
18F1117	196P22492S2	.22	H	2.12	1.59	1.19	.80	.64
18F1122	196P33492S2	.33	J	2.24	1.69	1.27	.85	.68
18F1127	196P47492S2	.47	T	2.34	1.75	1.32	.88	.70
18F1132	196P68492S2	.68	U	2.64	1.98	1.49	.99	.80
18F1135	196P10592S2	1.0	M	2.97	2.23	1.68	1.12	.90

600 WVDC — ± 10% TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499
18F910	196P10296S2	.001	C	1.60	1.20	.90	.60	.48
18F1068	196P15296S2	.0015	C	1.76	1.32	.99	.66	.53
18F911	196P22296S2	.0022	C	1.76	1.32	.99	.66	.53
18F1075	196P33296S2	.0033	D	1.81	1.36	1.02	.68	.55
18F1078	196P47296S2	.0047	D	1.87	1.41	1.06	.71	.57
18F1083	196P68296S2	.0068	D	2.16	1.62	1.22	.81	.65
18F912	196P10396S2	.01	D	1.92	1.44	1.08	.72	.58
18F1092	196P15396S2	.015	E	1.94	1.46	1.09	.73	.59
18F1097	196P22396S2	.022	E	1.96	1.47	1.10	.74	.59
18F1102	196P33396S2	.033	F	1.96	1.47	1.10	.74	.59
18F913	196P47396S2	.047	G	2.03	1.52	1.14	.76	.61
18F1108	196P68396S2	.068	H	2.16	1.62	1.22	.81	.65
18F914	196P10496S2	.10	J	2.20	1.65	1.24	.83	.66
18F1115	196P15496S2	.15	T	2.34	1.75	1.32	.88	.70
18F1120	196P22496S2	.22	U	2.64	1.98	1.49	.99	.80
18F1125	196P33496S2	.33	M	2.95	2.22	1.66	1.11	.89
18F1130	196P47496S2	.47	Z	3.08	2.31	1.74	1.16	.93

SIZES

A: .175x¾"
B: .195x¾"
C: .235x¾"
D: .312x⅞"
E: .400x ⅞"
F: .400x1⅛"
G: .400x1⅜"
H: .562x1⅛"
J: .562x1⅜"
K: .562x1⅞"
L: .670x1⅞"
M: .750x2⅛"
N: 1.000x1⅞"
P: .175x¾"
R: .175x¾"
S: .312x⅞"
T: .562x1⅝"
U: .670x1⅝"
V: .400x1⅝"
W: .235x ¾"
X: .400x ⅞"
Z. .750x2⅜"

SPRAGUE CAPACITORS

TYPE 155P-156P MOLDED METALLIZED PAPER CAPACITORS

MOLDED phenolic case metallized paper tubular capacitors offering excellent humidity resistance. At 85°C the minimum product of insulation resistance and capacitance is 40 megohm—microfarads. Will withstand 200% of rated voltage. Operating temperature range: —40°C to +85°C. Tolerance ±20%.

155P—200 VOLTS

Stk. No.	Mfd.	D x L	1-24	25-49	50-99	100-499
18F1874	.01	5/16x1	.42	.26	.20	.18
18F1875	.015	5/16x1	.42	.26	.20	.18
18F1876	.02	5/16x1	.42	.26	.20	.18
18F1877	.022	5/16x1	.42	.26	.20	.18
18F1878	.03	5/16x1	.45	.27	.21	.18
18F1879	.033	5/16x1	.45	.27	.21	.18
18F1880	.047	5/16x1	.45	.27	.21	.18
18F1881	.05	5/16x1	.45	.27	.21	.19
18F1882	.068	5/16x1	.45	.28	.22	.19
18F1883	.1	5/16x1	.45	.28	.22	.19
18F1884	.15	⅜x1¼	.45	.28	.22	.19
18F1885	.22	⅜x1¼	.45	.28	.22	.20
18F1886	.25	⅜x1¼	.66	.39	.30	.27
18F1887	.33	7/16x1¼	.66	.39	.30	.27
18F1888	.47	7/16x1¼	.66	.40	.31	.28
18F1889	.5	7/16x1¼	.78	.60	.46	.41
18F1890	.68	½x1½	.78	.60	.46	.41
18F1891	1.0	½x1½	1.05	.63	.48	.43
18F1892	1.5	⅝x1⅞	1.20	.70	.54	.48
18F1893	2.0	⅝x1⅞	1.41	.85	.66	.59
156P—200 VOLTS						
18F1894	2.5	¾x2¼	1.65	.97	.75	.66
18F1895	3.0	¾x2¼	1.80	1.05	.81	.72
18F1896	3.5	¾x2¼	2.10	1.23	.95	.84
18F1897	4.0	¾x2¼	2.22	1.30	1.00	.89
18F1898	4.5	⅞x2½	2.40	1.40	1.08	.96
18F1899	5.0	⅞x2½	2.55	1.49	1.15	1.02
18F1900	5.5	⅞x2½	2.70	1.58	1.22	1.08
18F1901	6.0	⅞x2½	3.00	1.75	1.35	1.20
18F1902	6.5	⅞x2½	3.15	1.84	1.42	1.26
18F1903	7.0	⅞x2½	3.33	1.95	1.50	1.34
18F1904	7.5	⅞x2½	3.51	2.05	1.58	1.41
18F1905	8.0	1x2½	3.75	2.19	1.69	1.50
18F1906	8.5	1x2½	3.90	2.28	1.76	1.56
18F1907	9.0	1x2½	4.05	2.37	1.83	1.62
18F1908	9.5	1x2½	4.20	2.45	1.89	1.68
155P—400 VOLTS						
18F1909	.01	5/16x1	.42	.26	.20	.18
18F1910	.015	5/16x1	.42	.26	.20	.18
18F1911	.02	5/16x1	.42	.27	.21	.18
18F1912	.022	5/16x1	.42	.27	.21	.18
18F1913	.025	5/16x1	.42	.27	.21	.19
18F1914	.03	⅜x1¼	.42	.27	.21	.19
18F1915	.033	⅜x1¼	.42	.27	.21	.19
18F1916	.04	⅜x1¼	.42	.28	.22	.19
18F1917	.047	⅜x1¼	.42	.28	.22	.19
18F1918	.05	⅜x1¼	.45	.29	.23	.20
18F1919	.068	⅜x1¼	.45	.29	.23	.20
18F1920	.1	7/16x1¼	.51	.30	.23	.21
18F1921	.15	½x1½	.66	.39	.30	.27
18F1922	.2	½x1½	.69	.44	.35	.30
18F1923	.22	½x1½	.69	.44	.35	.30
18F1924	.25	½x1½	.72	.48	.37	.33
18F1925	.33	⅝x1⅞	.72	.48	.37	.33
18F1926	.47	⅝x1⅞	.90	.55	.43	.38
18F1927	.5	⅝x1⅞	.93	.62	.48	.42
156P—400 VOLTS						
18F1928	.68	¾x2¼	1.05	.62	.48	.42
18F1929	1.0	¾x2¼	1.29	.77	.60	.53
18F1930	1.5	⅞x2½	1.59	.93	.72	.64
18F1931	2.0	⅞x2½	1.80	1.09	.84	.75
18F1932	2.5	1x2½	2.25	1.32	1.02	.90
155P—600 VOLTS						
18F1933	.01	5/16x1	.45	.27	.21	.19
18F1934	.015	⅜x1¼	.45	.28	.21	.19
18F1935	.02	⅜x1¼	.45	.28	.22	.19
18F1936	.022	⅜x1¼	.45	.28	.22	.19
18F1937	.03	⅜x1¼	.48	.29	.23	.20
18F1938	.033	⅜x1¼	.48	.29	.23	.20
18F1939	.04	⅜x1¼	.51	.31	.24	.22
18F1940	.047	⅜x1¼	.51	.31	.24	.22
18F1941	.05	⅜x1¼	.51	.32	.25	.22
18F1942	.06	7/16x1¼	.51	.32	.25	.22
18F1943	.068	7/16x1¼	.51	.32	.25	.22
18F1944	.1	½x1½	.57	.35	.27	.24
18F1945	.15	½x1½	.72	.42	.33	.29
18F1946	.2	⅝x1⅞	.90	.54	.42	.37
18F1947	.22	⅝x1⅞	.90	.54	.42	.37
18F1948	.25	⅝x1⅞	.90	.55	.42	.38
18F1949	.33	⅝x1⅞	.93	.55	.42	.38
156P—600 VOLTS						
18F1950	.47	¾x2¼	1.14	.67	.52	.46
18F1951	.5	¾x2¼	1.14	.76	.59	.52
18F1952	.68	¾x2¼	1.14	.76	.59	.52
18F1953	1.0	⅞x2½	1.38	.84	.65	.57
18F1954	1.5	1x2½	1.89	1.10	.85	.75

Above Capacitors Available In 10% Tol. On Special Order.

TYPE 5C MONOLYTHIC CAPACITORS

Monolythic ceramic capacitors for transistorized circuitry. Size: ½"x½". it is possible to pack a capacitance of as much as 2.2µF at 25 volts d-c or .47µF at 50 volts d-c. Solid homogeneous blocks are protected against moisture and mechanical damage by a.resin dip.

25 WVDC ±20% TOLERANCE

Stk. No.	Type	Mfd.	Max. Thickness	1-49	50-99	100-249	250-499
18F1955	5C7	.1	.125	.80	.60	.45	.40
18F1956	5C8	.15	.125	.92	.69	.518	.46
18F1957	5C9	.22	.125	1.06	.795	.596	.53
18F1958	5C10	.33	.125	1.20	.90	.675	.60
18F1959	5C11	.47	.125	1.38	1.035	.776	.69
18F1960	5C12	.68	.125	1.48	1.11	.833	.74
18F1961	5C13	1.0	.125	1.96	1.47	1.103	.98
19F1962	5C14	1.5	.187	2.52	1.89	1.418	1.26
18F1963	5C15	2.2	.187	3.02	2.265	1.699	1.51

FORMULATION C-23 MONOLYTHIC CERAMIC CAPACITORS

C-23 Capacitors are the high-K family of Monolythics. Well-suited for use in the high frequency, very high frequency, and ultra-high frequency range through 1000 megacycles as well as being effective in low frequency rf and audio frequency applications.

RADIAL LEADS 25 WVDC ±20% TOLERANCE

Stk. No.	Type	Mfd.	Size	1-49	50-99	100-249	250-499
18F1964	3C3	.01	.390" x .202"	1.74	1.305	.979	.87
18F1965	3C6	.015	.390" x .202"	1.74	1.305	.979	.87
18F1966	3C9	.022	.390" x .202"	1.74	1.305	.979	.87
18F1967	3C12	.033	.390" x .202"	1.74	1.305	.979	.87
18F1968	3C15	.047	.390" x .202"	1.74	1.305	.979	.87
18F1969	3C18	.068	.390" x .202"	1.84	1.38	1.035	.92
18F1970	3C21	.1	.390" x .202"	1.92	1.44	1.08	.96
18F1971	4C38	.15	.515" x .296"	2.18	1.635	1.226	1.09
18F1972	4C41	.22	.515" x .296"	2.38	1.785	1.339	1.19
18F1973	4C44	.33	.515" x .296"	3.02	2.265	1.699	1.51
18F1974	4C47	.47	.535" x .340"	4.06	3.048	2.286	2.032
18F1975	4C50	.68	.535" x .340"	5.14	3.852	2.889	2.568

AXIAL LEADS 25 WVDC ±20% TOLERANCE

Stk. No.	Type	Mfd.	Size	1-49	50-99	100-249	250-499
18F1976	3C1	.01	.390" x .202"	1.82	1.365	1.024	.91
18F1977	3C4	.015	.390" x .202"	1.82	1.365	1.024	.91
18F1978	3C7	.022	.390" x .202"	1.82	1.365	1.024	.91
18F1979	3C10	.033	.390" x .202"	1.82	1.365	1.024	.91
18F1980	3C13	.047	.390" x .202"	1.82	1.365	1.024	.91
18F1981	3C16	.068	.390" x .202"	1.92	1.44	1.08	.96
18F1982	3C19	.1	.390" x .202"	2.00	1.50	1.125	1.00
18F1983	4C36	.15	.515" x .296"	2.26	1.695	1.271	1.13
18F1984	4C39	.22	.515" x .296"	2.46	1.845	1.384	1.23
18F1985	4C42	.33	.515" x .296"	3.10	2.325	1.744	1.55

121P METALIZED PAPER CAPACITORS

Designed to operate at 125°C without voltage derating. High insulation resistance—at 85°C minimum product of insulation resistance and capacitance is 20 megohm microfarads. Tol. ±10%. 150 working volts DC.

Stk. No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499	500-999
18F1410	121P15591R5S2	1.5	J	2.73	1.593	1.229	1.092	1.001
18F1411	121P20591R5S2	2.0	K	3.00	1.75	1.35	1.20	1.10
18F1412	121P25591R5S2	2.5	M	3.09	1.803	1.391	1.236	1.133
18F1413	121P30591R5S2	3.0	N	3.45	2.013	1.553	1.38	1.265
18F1414	121P35591R5S2	3.5	P	3.66	2.135	1.647	1.464	1.342
18F1415	121P40591R5S2	4.0	P	3.72	2.17	1.674	1.488	1.364
18F1416	121P50591R5S2	5.0	Q	4.08	2.38	1.836	1.632	1.496
18F1417	121P60591R5S2	6.0	T	4.40	2.59	1.998	1.776	1.628
18F1418	121P80591R5S2	8.0	U	5.16	3.01	2.322	2.064	1.892
18F1419	121P10691R5S2	10	V	5.97	3.483	2.687	2.388	2.189
18F1420	121P12691R5S2	12	W	6.75	3.938	3.038	2.70	2.475
18F1421	121P14691R5S2	14	X	7.53	4.393	3.389	3.012	2.761
18F1422	121P16691R5S2	16	Y	8.01	4.673	3.605	3.204	2.937
18F1423	121P18691R5S2	18	Z	9.12	5.32	4.104	3.648	3.344

127P FILMITE "E" TUBULAR CAPACITORS

Extended foil construction for low series resistance. Operating temperature range, —55°C to +150°C. Tolerance, ±10%. Units have plastic insulating sleeves. 200 Working Volts DC.

Stk. No.	Type	Mfd.	Size	1-9	10-24	25-49	50-99	100-499
18F1340	127P68292S4	.0068	C	3.65	2.74	2.06	1.37	1.10
18F1341	127P10392S4	.01	C	3.82	2.87	2.15	1.44	1.15
18F1342	127P15392S4	.015	C	3.85	2.89	2.17	1.45	1.16
18F1343	127P22392S4	.022	C	3.87	2.90	2.18	1.45	1.16
18F1344	127P33392S4	.033	D	3.91	2.93	2.20	1.47	1.18
18F1345	127P47392S4	.047	D	3.96	2.97	2.23	1.49	1.19
18F1346	127P68392S4	.068	D	4.01	3.01	2.26	1.51	1.21
18F1347	127P10492S4	.1	E	4.03	3.02	2.27	1.51	1.21
18F1348	127P15492S4	.15	F	4.24	3.18	2.39	1.59	1.27
18F1349	127P22492S4	.22	G	4.50	3.37	2.53	1.69	1.35
18F1350	127P33492S4	.33	H	4.77	3.58	2.68	1.79	1.43
18F1351	127P47492S4	.47	J	5.01	3.76	2.82	1.88	1.51
18F1352	127P68492S4	.68	K	5.46	4.10	3.08	2.05	1.64
18F1353	127P10592S4	1.0	L	6.06	4.55	3.41	2.27	1.52

ORANGE DROP, DIFILM DIPPED TUBULARS

Dual Dielectric impregnated with exclusive HCX—produces rock-hard capacitor section. Double dipped in Bright Orange Epoxy Resin—beats heat and humidity. Shpg. wt., 4 oz.

200 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249
18F1612	.02	3/8x 7/8	2PS-S20	.15	.11	.09	.07
18F1613	.022	25/64x 7/8	2PS-S22	.15	.11	.09	.07
18F1614	.047	29/64x 7/8	2PS-S47	.15	.13	.10	.08
18F1615	.05	15/32x 7/8	2PS-S50	.15	.13	.10	.08
18F1616	.1	31/64x1 3/16	2PS-P10	.21	.16	.12	.09
18F1617	.15	9/16x1 3/16	2PS-P15	.21	.17	.13	.11
18F1618	.2	19/32x1 5/16	2PS-P20	.24	.20	.16	.13
18F1619	.22	39/64x1 5/16	2PS-P22	.24	.20	.16	.13
18F1620	.25	5/8x1 5/16	2PS-P25	.24	.20	.16	.13
18F1621	.33	5/8x1 5/8	2PS-P33	.30	.23	.18	.15
18F1622	.47	45/64x1 5/8	2PS-P47	.36	.26	.21	.17
18F1623	.5	23/32x1 5/8	2PS-P50	.36	.27	.21	.17

400 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249
18F1624	.01	13/32x 11/16	4PS-S10	.15	.10	.08	.07
18F1625	.015	29/64x 11/16	4PS-S15	.15	.11	.08	.07
18F1626	.02	13/32x 7/8	4PS-S20	.15	.12	.09	.07
18F1627	.022	27/64x 7/8	4PS-S22	.18	.12	.09	.08
18F1628	.025	7/16x 7/8	4PS-S25	.18	.12	.10	.08
18F1629	.03	29/64x 7/8	4PS-S30	.18	.13	.10	.08
18F1630	.033	15/32x 7/8	4PS-S33	.18	.13	.10	.08
18F1631	.04	27/64x1 3/16	4PS-S40	.18	.14	.11	.09
18F1632	.047	29/64x1 3/16	4PS-S47	.18	.14	.11	.09
18F1633	.05	29/64x1 3/16	4PS-S50	.18	.15	.11	.09
18F1634	.056	31/64x1 3/16	4PS-S56	.21	.15	.12	.10
18F1635	.068	33/64x1 3/16	4PS-S68	.21	.15	.12	.10
18F1636	.075	33/64x1 3/16	4PS-S75	.21	.16	.13	.10
18F1637	.1	37/64x1 3/16	4PS-P10	.21	.17	.13	.11
18F1638	.15	39/64x1 5/16	4PS-P15	.24	.21	.16	.13
18F1639	.2	19/32x1 5/8	4PS-P20	.27	.25	.20	.16
18F1640	.22	39/64x1 5/8	4PS-P22	.27	.25	.20	.16
18F1641	.25	41/64x1 5/8	4PS-P25	.30	.26	.20	.16

600 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249
18F1642	.001	21/64x 11/16	6PS-D10	.15	.10	.08	.07
18F1643	.0012	21/64x 11/16	6PS-D12				
18F1644	.0015	21/64x 11/16	6PS-D15				
18F1645	.0018	21/64x 11/16	6PS-D18				
18F1646	.002	21/64x 11/16	6PS-D20				
18F1647	.0022	21/64x 11/16	6PS-D22				
18F1648	.0025	21/64x 11/16	6PS-D25				
18F1649	.0027	11/32x 11/16	6PS-D27				
18F1650	.003	11/32x 11/16	6PS-D30				
18F1651	.0033	23/64x 11/16	6PS-D33				
18F1652	.0039	3/8x 11/16	6PS-D39				
18F1653	.004	3/8x 11/16	6PS-D40				
18F1654	.0047	25/64x 11/16	6PS-D47				
18F1655	.005	25/64x 11/16	6PS-D50				
18F1656	.0056	25/64x 11/16	6PS-D56				
18F1657	.006	13/32x 11/16	6PS-D60	.15	.11	.08	.07
18F1658	.0068	13/32x 11/16	6PS-D68	.18	.11	.08	.07
18F1659	.0075	23/64x 7/8	6PS-D75	.18	.11	.09	.07
18F1660	.008	23/64x 7/8	6PS-D80				
18F1661	.0082	3/8x 7/8	6PS-D82				
18F1662	.01	25/64x 7/8	6PS-S10				
18F1663	.012	25/64x 7/8	6PS-S12				
18F1664	.015	27/64x 7/8	6PS-S15				
18F1665	.02	31/64x 7/8	6PS-S20	.18	.13	.10	.08
18F1666	.022	31/64x 7/8	6PS-S22	.18	.13	.10	.08
18F1667	.025	17/32x 7/8	6PS-S25	.21	.13	.11	.09
18F1668	.027	7/16x1 3/16	6PS-S27	.21	.13	.11	.09
18F1669	.03	7/16x1 3/16	6PS-S30	.21	.14	.11	.09
18F1670	.033	15/32x1 3/16	6PS-S33	.21	.14	.11	.09
18F1671	.035	15/32x1 3/16	6PS-S35	.21	.14	.11	.09
18F1672	.039	31/64x1 3/16	6PS-S39	.21	.14	.11	.09
18F1673	.04	1/2x1 3/16	6PS-S40	.21	.15	.12	.10
18F1674	.047	17/32x1 3/16	6PS-S47	.24	.15	.12	.10
18F1675	.05	17/32x1 3/16	6PS-S50	.24	.15	.12	.10
18F1676	.056	35/64x1 3/16	6PS-S56	.24	.15	.12	.10
18F1677	.06	9/16x1 3/16	6PS-S60	.24	.18	.14	.11
18F1678	.068	37/64x1 3/16	6PS-S68	.27	.18	.14	.11
18F1679	.075	9/16x1 5/16	6PS-S75	.27	.18	.14	.12
18F1680	.082	37/64x1 5/16	6PS-S82	.27	.18	.14	.12
18F1681	.1	5/8x1 5/16	6PS-P10	.27	.19	.15	.12
18F1682	.15	43/64x1 5/8	6PS-P15	.30	.23	.18	.15
18F1683	.2	3/4x1 5/8	6PS-P20	.39	.27	.21	.17
18F1684	.22	25/32x1 5/8	6PS-P22	.42	.27	.21	.17
18F1685	.25	13/16x1 5/8	6PS-P25	.45	.27	.21	.17

1000 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249
18F1686	.001	21/64x 11/16	10PS-D10	.30	.09	.07	.06
18F1687	.0015	11/32x 11/16	10PS-D15	.30	.10	.08	.06
18F1688	.002	3/8x 11/16	10PS-D20	.30	.10	.08	.06
18F1689	.0022	3/8x 11/16	10PS-D22	.30	.10	.08	.06
18F1690	.003	11/32x 7/8	10PS-D30	.30	.10	.08	.06
18F1691	.004	3/8x 7/8	10PS-D40	.30	.11	.08	.07
18F1692	.0047	11/32x 7/8	10PS-D47	.30	.11	.08	.07
18F1693	.005	11/32x 7/8	10PS-D50	.30	.11	.09	.07

FOIL TANTALUM CAPACITORS

Designed to meet performance requirements of Military Specification MIL-C-3965B. Tubular aluminum case with leak proof TFE-fluorocarbon elastometer seal. Polarized. Floating type design cathode terminal and container at same potential with respect to ground. High capacitance stability. Extremely low leakage current. Military number CL25 has etched foil. Military number CL35 has plain foil. Fully insulated. Sizes: (A) 13/64x3/4. (B) 19/64x15/16. (C) 25/64x1 1/2. (D) 25/64x2 3/16. (E) 25/64x2 13/16.

CL25

Stock No.	Mil. No. CL25-	Mfd	WV DC	Sz.	1-9	10-24	25-49	50-99	100-499	500-999
18F1700	BE150UP3	15	15	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1701	BE600UP3	60	15	B	7.65	5.30	4.10	3.10	2.30	2.12
18F1702	BE201UP3	200	15	C	12.70	9.20	7.10	5.35	3.95	3.61
18F1703	BE401UP3	400	15	D	20.65	14.95	11.50	8.65	6.35	5.82
18F1704	BE581UP3	580	15	E	27.45	19.85	15.30	11.50	8.45	7.71
18F1705	BG100UP3	10	25	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1706	BG400UP3	40	25	B	7.65	5.30	4.10	3.10	2.30	2.12
18F1707	BG121UP3	120	25	C	12.70	9.20	7.10	5.35	3.95	3.61
18F1708	BG251UP3	250	25	D	20.65	14.95	11.50	8.65	6.35	5.82
18F1709	BG351UP3	350	25	E	27.45	19.85	15.30	11.50	8.45	7.71
18F1710	BH080UP3	8	30	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1711	BH320UP3	32	30	B	7.65	5.30	4.10	3.10	2.30	2.12
18F1712	BH111UP3	110	30	C	12.70	9.20	7.10	5.35	3.95	3.61
18F1713	BH221UP3	220	30	D	20.65	14.95	11.50	8.65	6.35	5.82
18F1714	BH301UP3	300	30	E	27.45	19.85	15.30	11.50	8.45	7.71
18F1715	BJ4R5UP3	45	50	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1716	BJ180UP3	18	50	B	7.65	5.30	4.10	3.10	2.30	2.12
18F1717	BJ600UP3	60	50	C	12.70	9.20	7.10	5.35	3.95	3.61
18F1718	BJ101UP3	100	50	D	20.65	14.95	11.50	8.65	6.35	5.82
18F1719	BJ151UP3	150	50	E	27.45	19.85	15.30	11.50	8.45	7.71
18F1720	BL030UP3	3	75	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1721	BL120UP3	12	75	B	7.65	5.30	4.10	3.10	2.30	2.12
18F1722	BL300UP3	30	75	C	12.70	9.20	7.10	5.35	3.95	3.61
18F1723	BL700UP3	70	75	D	20.65	14.95	11.50	8.65	6.35	5.82
18F1724	BL101UP3	100	75	E	27.45	19.85	15.30	11.50	8.45	7.71
18F1725	BN020UP3	2	100	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1726	BN080UP3	8	100	B	7.65	5.30	4.10	3.10	2.30	2.12
18F1727	BN250UP3	25	100	C	12.70	9.20	7.10	5.35	3.95	3.61
18F1728	BN500UP3	50	100	D	20.65	14.95	11.50	8.65	6.35	5.82
18F1729	BN700UP3	70	100	E	27.45	19.85	15.30	11.50	8.45	7.71
18F1730	BQ010UP3	1	150	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1731	BQ040UP3	4	150	B	7.65	5.30	4.10	3.10	2.30	2.12
18F1732	BQ130UP3	13	150	C	12.70	9.20	7.10	5.35	3.95	3.61
18F1733	BQ250UP3	25	150	D	20.65	14.95	11.50	8.65	6.35	5.82
18F1734	BQ360UP3	36	150	E	27.45	19.85	15.30	11.50	8.45	7.71

CL35

Stock No.	Mil. No. CL35-	Mfd	WV DC	Sz.	1-9	10-24	25-49	50-99	100-499	500-999
18F1735	BA100MP3	10	3	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1736	BA500MP3	50	3	B	6.70	4.85	3.75	2.85	2.10	1.94
18F1737	BB080MP3	8	6	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1738	BB300MP3	30	6	B	6.70	4.85	3.75	2.85	2.10	1.94
18F1739	BB101MP3	100	6	C	10.55	7.65	5.90	4.45	3.25	3.01
18F1740	BB201MP3	200	6	D	14.70	10.65	8.20	6.20	4.55	4.17
18F1741	BB301MP3	300	6	E	19.70	14.25	10.95	8.25	6.05	5.55
18F1742	BD060MP3	6	10	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1743	BD250MP3	25	10	B	6.70	4.85	3.75	2.85	2.10	1.94
18F1744	BD800MP3	80	10	C	10.55	7.65	5.90	4.45	3.25	3.01
18F1745	BD161MP3	160	10	D	14.70	10.65	8.20	6.20	4.55	4.17
18F1746	BD221MP3	220	10	E	19.70	14.25	10.95	8.25	6.05	5.55
18F1747	BE4R5MP3	4.5	15	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1779	BE100MP3	10	15	B	6.70	4.85	3.75	2.85	2.10	1.94
18F1748	BE180MP3	18	15	B	6.70	4.85	3.75	2.85	2.10	1.94
18F1749	BE550MP3	55	15	C	10.55	7.65	5.90	4.45	3.25	3.01
18F1750	BE111MP3	110	15	D	14.70	10.65	8.20	6.20	4.55	4.17
18F1751	BE161MP3	160	15	E	19.70	14.25	10.95	8.25	6.05	5.55
18F1752	BH2R5MP3	2.5	30	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1753	BH300MP3	30	30	C	10.55	7.65	5.90	4.45	3.25	3.01
18F1754	BH600MP3	60	30	D	14.70	10.65	8.20	6.20	4.55	4.17
18F1755	BH850MP3	85	30	E	19.70	14.25	10.95	8.25	6.05	5.55
18F1756	BJ1R5MP3	1.5	50	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1757	BJ060MP3	6	50	B	6.70	4.85	3.75	2.85	2.10	1.94
18F1758	BJ200MP3	20	50	C	10.55	7.65	5.90	4.45	3.25	3.01
18F1759	BJ400MP3	40	50	D	14.70	10.65	8.20	6.20	4.55	4.17
18F1760	BJ550MP3	55	50	E	19.70	14.25	10.95	8.25	6.05	5.55
18F1761	BL010MP3	1	75	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1762	BL040MP3	4	75	B	6.70	4.85	3.75	2.85	2.10	1.49
18F1763	BL140MP3	14	75	C	10.55	7.65	5.90	4.45	3.25	3.01
18F1764	BL280MP3	28	75	D	14.70	10.65	8.20	6.20	4.55	4.17
18F1765	BL400MP3	40	75	E	19.70	14.25	10.95	8.25	6.05	5.55
18F1766	BN0R8MP3	0.8	100	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1767	BN030MP3	3	100	B	6.70	4.85	3.75	2.85	2.10	1.94
18F1768	BN100MP3	10	100	C	10.55	7.65	5.90	4.45	3.25	3.01
18F1769	BN200MP3	20	100	D	14.70	10.65	8.20	6.20	4.55	4.17
18F1770	BN300MP3	30	100	E	19.70	14.25	10.95	8.25	6.05	5.55
18F1771	BQ0R5MP3	0.5	150	A	4.30	3.60	2.65	1.99	1.50	1.31
18F1772	BQ020MP3	2	150	B	6.70	4.85	3.75	2.85	2.10	1.94
18F1773	BQ040MP3	4	150	C	10.55	7.65	5.90	4.45	3.25	3.01
18F1774	BQ070MP3	7	150	C	10.55	7.65	5.90	4.45	3.25	3.01
18F1775	BQ080MP3	8	150	D	14.70	10.65	8.20	6.20	4.55	4.17
18F1776	BQ120MP3	12	150	D	14.70	10.65	8.20	6.20	4.55	4.17
18F1777	BQ140MP3	14	150	D	14.70	10.65	8.20	6.20	4.55	4.17
18F1778	BQ200MP3	20	150	E	19.70	14.25	10.95	8.25	6.05	5.55

SPRAGUE TYPE 150 SOLID TANTALUM

Solid Electrolytic Tantalum Capacitors-Type 15000. Hermetically sealed subminiature type for military and industrial application. Temp. range: —80 to +85°C. Low linear temp. coeff. Plastic insulating sleeves. to 125°C. with ⅓ voltage derating.

6 WVDC ±20% TOLERANCE

Stk. No.	Type	Mfd.	Sz. *	1-24	25-49	50-99	100-499	500-999
18F770	150D685X0006A2	6.8	A	1.48	1.19	1.01	.75	.71
18F1210	150D106X0006B2	10	B	1.54	1.24	1.05	.77	.73
18F1211	150D336X0006B2	33	B	1.54	1.24	1.05	.77	.73
18F1212	150D476X0006B2	47	B	1.54	1.24	1.05	.77	.73
18F1236	150D606X0006B2	60	B	1.54	1.24	1.05	.77	.73
18F1213	150D157X0006R2	150	R	2.54	2.04	1.72	1.26	1.21
18F1214	150D187X0006R2	180	R	2.54	2.04	1.72	1.26	1.21
18F1839	150D277X0006S2	270	S	4.72	3.78	3.19	2.47	2.36
18F1237	150D337X0006S2	330	S	4.72	3.78	3.19	2.47	2.36

10 WVDC ±20% TOLERANCE

Stk. No.	Type	Mfd.	Sz. *	1-24	25-49	50-99	100-499	500-999
18F772	150D475X0010A2	4.7	A	1.48	1.19	1.01	.75	.71
18F773	150D336X0010B2	33	B	1.54	1.24	1.05	.77	.73
18F774	150D406X0010B2	40	B	1.54	1.24	1.05	.77	.73
18F1215	150D107X0010R2	100	R	2.54	2.04	1.72	1.26	1.21
18F1216	150D127X0010R2	120	R	2.54	2.04	1.72	1.26	1.21
18F1238	150D227X0010S2	220	S	4.72	3.78	3.19	2.47	2.36

15 WVDC ±20% TOLERANCE

Stk. No.	Type	Mfd.	Sz. *	1-24	25-49	50-99	100-499	500-999
18F775	150D335X0015A2	3.3	A	1.48	1.19	1.01	.75	.71
18F776	150D226X0015B2	22	B	1.54	1.24	1.05	.77	.73
18F1217	150D686X0015R2	68	R	2.54	2.04	1.72	1.26	1.21
18F1239	150D157X0015S2	150	S	4.72	3.78	3.19	2.47	2.36

20 WVDC ±20% TOLERANCE

Stk. No.	Type	Mfd.	Sz. *	1-24	25-49	50-99	100-499	500-999
18F777	150D334X0020A2	.33	A	1.48	1.19	1.01	.75	.71
18F778	150D474X0020A2	.47	A					
18F779	150D684X0020A2	.68	A					
18F780	150D105X0020A2	1.00	A					
18F781	150D155X0020A2	1.5	A					
18F782	150D225X0020A2	2.2	A					
18F783	150D335X0020B2	3.3	B	1.54	1.24	1.05	.77	.73
18F784	150D475X0020B2	4.7	B					
18F785	150D685X0020B2	6.8	B					
18F786	150D106X0020B2	10	B					
18F1218	150D156X0020B2	15	B					
18F1219	150D226X0020R2	22	R	2.54	2.04	1.72	1.26	1.21
18F1220	150D336X0020R2	33	R					
18F1221	150D476X0020R2	47	R					
18F1240	150D686X0020S2	68	S	4.72	3.78	3.19	2.47	2.36
18F1243	150D107X0020S2	100	S	4.72	3.78	3.19	2.47	2.63

35 WVDC ±20% TOLERANCE

Stk. No.	Type	Mfd.	Sz. *	1-24	25-49	50-99	100-499	500-999
18F787	150D472X0035A2	.0047	A	1.32	1.06	.90	.74	.70
18F788	150D682X0035A2	.0068	A					
18F789	150D103X0035A2	.01	A					
18F790	150D153X0035A2	.015	A					
18F791	150D223X0035A2	.022	A					
18F792	150D333X0035A2	.033	A					
18F793	150D473X0035A2	.047	A					
18F794	150D683X0035A2	.068	A					
18F795	150D104X0035A2	.10	A					
18F1222	150D154X0035A2	.15	A	1.48	1.19	1.01	.75	.71
18F1223	150D224X0035A2	.22	A					
18F1224	150D334X0035A2	.33	A					
18F1225	150D474X0035A2	.47	A					
18F1226	150D684X0035A2	.68	A					
18F1227	150D105X0035A2	1.0	A					
18F1228	150D155X0035B2	1.5	B					
18F1229	150D225X0035B2	2.2	B	1.54	1.24	1.05	.77	.73
18F1230	150D335X0035B2	3.3	B					
18F1231	150D475X0035B2	4.7	B					
18F1232	150D685X0035B2	6.8	B					
18F1233	150D106X0035R2	10.0	R	2.54	2.04	1.72	1.26	1.21
18F1234	150D156X0035R2	15.0	R	2.54	2.04	1.72	1.26	1.21
18F1235	150D226X0035R2	22.0	R	2.54	2.04	1.72	1.26	1.21
18F1241	150D336X0035S2	33	S	4.72	3.78	3.19	2.47	2.36
18F1242	150D476X0035S2	47	S	4.72	3.78	3.19	2.47	2.36

50 WVDC ±20% TOLERANCE

Stk. No.	Type	Mfd.	Sz. *	1-24	25-49	50-99	100-499	500-999
18F1800	150D103X0050A2	.01	A	1.92	1.54	1.30	1.11	1.02
18F1801	150D153X0050A2	.015	A					
18F1802	150D223X0050A2	.022	A					
18F1803	150D333X0050A2	.033	A					
18F1804	150D473X0050A2	.047	A					
18F1805	150D683X0050A2	.068	A					
18F1806	150D104X0050A2	.1	A					
18F1807	150D154X0050A2	.15	A					
18F1808	150D224X0050A2	.22	A					
18F1809	150D334X0050A2	.33	A					
18F1810	150D474X0050A2	.47	A					
18F1811	150D684X0050A2	.68	A					
18F1812	150D105X0050A2	1.0	A					
18F1813	150D155X0050B2	1.5	B	2.02	1.62	1.37	1.17	1.07
18F1814	150D225X0050B2	2.2	B					
18F1815	150D335X0050B2	3.3	B					
18F1816	150D475X0050B2	4.7	B					
18F1817	150D685X0050R2	6.8	R	3.30	2.64	2.24	1.91	1.75
18F1818	150D106X0050R2	10	R					
18F1819	150D156X0050R2	15	R					
18F1820	150D226X0050S2	22	S	6.14	4.92	4.16	3.54	3.24

See page 166 for sizes.

6 WVDC ±10% TOLERANCE

Stk. No.	Type	Mfd.	Sz. *	1-24	25-49	50-99	100-499	500-999
18F1354	150D565X9006A2	5.6	A	1.92	1.54	1.30	.97	.92
18F1355	150D685X9006A2	6.8	A	1.92	1.54	1.30	.97	.92
18F1356	150D476X9006B2	47	B	2.00	1.60	1.36	1.00	.95
18F1357	150D566X9006B2	56	B	2.00	1.60	1.36	1.00	.95
18F1821	150D060X9006B2	60	B	2.00	1.60	1.36	1.00	.95
18F1822	150D157X9006R2	150	R	3.30	2.64	2.23	1.65	1.57
18F1823	150D187X9006R2	180	R	3.30	2.64	2.23	1.65	1.57
18F1824	150D277X9006S2	270	S	6.12	4.90	4.14	3.21	3.07
18F1825	150D337X9006S2	330	S	6.12	4.90	4.14	3.21	3.07

10 WVDC ±10% TOLERANCE

Stk. No.	Type	Mfd.	Sz. *	1-24	25-49	50-99	100-499	500-999
18F1358	150D395X9010A2	3.9	A	1.92	1.54	1.30	.97	.92
18F1359	150D475X9010A2	4.7	A	1.92	1.54	1.30	.97	.92
18F1360	150D276X9010B2	27	B	2.00	1.60	1.36	1.00	.95
18F1361	150D336X9010B2	33	B	2.00	1.60	1.36	1.00	.95
18F1362	150D396X9010B2	39	B	2.00	1.60	1.36	1.00	.95
18F1244	150D406X9010B2	40	B	2.00	1.60	1.36	1.00	.95
18F1245	150D826X9010R2	82	R	3.30	2.64	2.23	1.65	1.57
18F1246	150D107X9010R2	100	R	3.30	2.64	2.23	1.65	1.57
18F1247	150D127X9010R2	120	R	3.30	2.64	2.23	1.65	1.57
18F1248	150D187X9010S2	180	S	6.12	4.90	4.14	3.21	3.07
18F1249	150D227X9010S2	220	S	6.12	4.90	4.14	3.21	3.07

15 WVDC ±10% TOLERANCE

Stk. No.	Type	Mfd.	Sz. *	1-24	25-49	50-99	100-499	500-999
18F1363	150D275X9015A2	2.7	A	1.92	1.54	1.30	.97	.92
18F1826	150D335X9015A2	3.3	A	1.92	1.54	1.30	.97	.92
18F1364	150D186X9015B2	18	B	2.00	1.60	1.36	1.00	.95
18F1365	150D226X9015B2	22	B	2.00	1.60	1.36	1.00	.95
18F1827	150D566X9015R2	56	R	3.30	2.64	2.23	1.65	1.57
18F1828	150D686x9015R2	68	R	3.30	2.64	2.23	1.65	1.57
18F1829	150D127X9015S2	120	S	6.12	4.90	4.14	3.21	3.07
18F1830	150D157X9015S2	150	S	6.12	4.90	4.14	3.21	3.07

20 WVDC ±10% TOLERANCE

Stk. No.	Type	Mfd.	Sz. *	1-24	25-49	50-99	100-499	500-999
18F1366	150D125X9020A2	1.2	A	1.92	1.54	1.30	.97	.92
18F1367	150D155X9020A2	1.5	A	1.92	1.54	1.30	.97	.92
18F1368	150D185X9020A2	1.8	A	1.92	1.54	1.30	.97	.92
18F1369	150D225X9020A2	2.2	A	1.92	1.54	1.30	.97	.92
18F1370	150D825X9020B2	8.2	B	2.00	1.60	1.36	1.00	.95
18F1371	150D106X9020B2	10	B	2.00	1.60	1.36	1.00	.95
18F1372	150D126X9020B2	12	B	2.00	1.60	1.36	1.00	.95
18F1373	150D156X9020B2	15	B	2.00	1.60	1.36	1.00	.95
18F1831	150D276X9020R2	27	R	3.30	2.64	2.23	1.65	1.57
18F1832	150D336X9020R2	33	R					
18F1833	150D396X9020R2	39	R					
18F1834	150D476X9020R2	47	R					
18F1835	150D566X9020S2	56	S	6.12	4.90	4.14	3.21	3.07
18F1836	150D686X9020S2	68	S					
18F1837	150D826X9020S2	82	S					
18F1838	150D107X9020S2	100	S					

35 WVDC ±10% TOLERANCE

Stk. No.	Type	Mfd.	Sz. *	1-24	25-49	50-99	100-499	500-999
18F1840	150D472X9035A2	.0047	A	1.72	1.38	1.17	.96	.91
18F1841	150D562X9035A2	.0056	A					
18F1842	150D682X9035A2	.0068	A					
18F1374	150D822X9035A2	.0082	A					
18F1375	150D103X9035A2	.01	A					
18F1376	150D123X9035A2	.012	A					
18F1377	150D153X9035A2	.015	A					
18F1378	150D183X9035A2	.018	A					
18F1379	150D223X9035A2	.022	A					
18F1380	150D273X9035A2	.027	A					
18F1381	150D333X9035A2	.033	A					
18F1382	150D393X9035A2	.039	A					
18F1383	150D473X9035A2	.047	A					
18F1384	150D563X9035A2	.056	A					
18F1385	150D683X9035A2	.068	A					
18F1386	150D823X9035A2	.082	A					
18F1387	150D104X9035A2	.10	A					
18F1388	150D124X9035A2	.12	A	1.92	1.54	1.30	.97	.92
18F1389	150D154X9035A2	.15	A					
18F1390	150D184X9035A2	.18	A					
18F1391	150D224X9035A2	.22	A					
18F1392	150D274X9035A2	.27	A					
18F1393	150D334X9035A2	.33	A					
18F1843	150D394X9035A2	.39	A					
18F1394	150D474X9035A2	.47	A					
18F1395	150D564X9035A2	.56	A					
18F1396	150D684X9035A2	.68	A					
18F1397	150D824X9035A2	.82	A					
18F1398	150D105X9035A2	1.0	A					
18F1399	150D125X9035B2	1.2	B	2.00	1.60	1.36	1.00	.95
18F1400	150D155X9035B2	1.5	B					
18F1401	150D185X9035B2	1.8	B					
18F1402	150D225X9035B2	2.2	B					
18F1403	150D275X9035B2	2.7	B					
18F1404	150D335X9035B2	3.3	B					
18F1405	150D395X9035B2	3.9	B					
18F1406	150D475X9035B2	4.7	B					
18F1407	150D565X9035B2	5.6	B					
18F1408	150D685X9035B2	6.8	B					

Continued on next page.

See page 166 for sizes.

All above capacitors are available in 5% tolerances on Special Order.

CAPACITORS SPRAGUE

SOLID ELECTROLYTIC TANTALUMS 150D CAPACITORS (Cont.)

35 WVDC ± 10% Tolerance

No.	Type	Mfd.	Sz. *	1-24	25-49	50-99	100-499	500-999
18F1844	150D825X9035R2	8.2	R	3.30	2.64	2.23	1.65	1.57
18F1845	150D106X9035R2	10	R					
18F1846	150D126X9035R2	12	R					
18F1847	150D156X9035R2	15	R					
18F1848	150D186X9035R2	18	R					
18F1849	150D226X9035R2	22	R					
18F1850	150D276X9035S2	27	S	6.12	4.90	4.14	3.21	3.07
18F1851	150D336X9035S2	33	S					
18F1852	150D396X9035S2	39	S					
18F1853	150D476X9035S2	47	S					

50 WVDC ± 10% Tolerance

No.	Type	Mfd.	Sz. *	1-24	25-49	50-99	100-499	500-999
18F1854	150D123X9050A2	.012	A	2.48	1.99	1.68	1.45	1.31
18F1855	150D183X9050A2	.018	A					
18F1856	150D273X9050A2	.027	A					
18F1857	150D393X9050A2	.039	A					
18F1858	150D563X9050A2	.056	A					
18F1859	150D823X9050A2	.082	A	2.48	1.99	1.68	1.45	1.31
18F1860	150D124X9050A2	.12	A					
18F1861	150D184X9050A2	.18	A					
18F1862	150D274X9050A2	.27	A					
18F1863	150D394X9050A2	.39	A					
18F1864	150D564X9050A2	.56	A					
18F1865	150D824X9050A2	.82	A					
18F1866	150D125X9050B2	1.2	B	2.62	2.10	1.77	1.52	1.39
18F1867	150D185X9050B2	1.8	B					
18F1868	150D275X9050B2	2.7	B					
18F1869	150D395X9050B2	3.9	B					
18F1870	150D565X9050R2	5.6	R	4.28	3.43	2.90	2.47	2.26
18F1871	150D825X9050R2	8.2	R					
18F1872	150D126X9050R2	12	R					
18F1873	150D186X9050S2	18	S	7.98	6.39	5.39	4.60	4.20

TYPE 118P DIFILM METALLIZED CAPACITORS

SPRAGUE
.18-200DC

Unique dual dielectric—a combination of metallized paper and of polyester film, impregnated with high-temperature mineral wax. Rated for operation at 125°C without voltage derating. Higher insulation resistance than any other metallized paper capacitors—at 125°C, minimum product of insulation resistance and capacitance is 10 megohm-microfarads for 200 V units or 40 megohm-microfarads for 400 and 600 V units. Hermetically sealed, with glass to metal solder seal terminals. Tolerance: ±10%.

200 VOLTS

No.	Type	Mfd.	Sz.	1-24	25-49	50-99	100-499	500-999
18F1286	118P10392S2	.01	YY	1.95	1.14	.88	.780	.715
18F1287	118P12392S2	.012	ZZ					
18F1288	118P15392S2	.015	ZZ					
18F1289	118P18392S2	.018	FF					
18F1290	118P22392S2	.022	FF					
18F1291	118P27392S2	.027	FF					
18F1292	118P33392S2	.033	FF					
18F1293	118P39392S2	.039	GG	1.96	1.14	.88	.784	.718
18F1294	118P47392S2	.047	GG	1.97	1.15	.89	.787	.722
18F1295	118P56392S2	.056	GG	1.98	1.16	.89	.792	.726
18F1296	118P68392S2	.068	GG	2.02	1.18	.91	.806	.739
18F1297	118P82392S2	.082	GG	2.03	1.18	.91	.810	.743
18F1298	118P10492S2	.1	GG	2.04	1.19	.92	.814	.746
18F1299	118P12492S2	.12	HH	2.04	1.19	.92	.816	.748
18F1300	118P15492S2	.15	HH	2.07	1.21	.93	.828	.759
18F1301	118P22492S2	.22	JJ	2.07	1.21	.93	.828	.759
18F1302	118P27492S2	.27	KK	2.15	1.25	.97	.858	.787
18F1303	118P33492S2	.33	KK	2.22	1.30	1.00	.888	.814
18F1304	118P39492S2	.39	LL	2.28	1.33	1.03	.912	.836
18F1305	118P47492S2	.47	LL	2.33	1.36	1.05	.930	.853
18F1306	118P56492S2	.56	LL	2.37	1.38	1.07	.948	.869
18F1307	118P68492S2	.68	LL	2.40	1.40	1.08	.960	.880
18F1308	118P82492S2	.82	J	2.48	1.44	1.11	.990	.908
18F1309	118P10592S2	1.0	J	2.55	1.49	1.15	1.020	.935
18F1310	118P15592S2	1.5	M	3.62	2.11	1.63	1.446	1.326
18F1311	118P20592S2	2.0	P	4.29	2.50	1.93	1.716	1.573
18F1312	118P30592S2	3.0	Q	4.50	2.63	2.03	1.800	1.650
18F1313	118P40592S2	4.0	T	4.80	2.80	2.16	1.920	1.760
18F1314	118P50592S2	5.0	W	5.25	3.06	2.36	2.100	1.925
18F1315	118P60592S2	6.0	W	6.00	3.50	2.40	2.400	2.200
18F1316	118P80592S2	8.0	W	6.15	3.59	2.77	2.460	2.255
18F1317	118P10692S2	10.0	Y	6.57	3.83	2.96	2.628	2.409
18F1318	118P12692S2	12.0	Z	7.41	4.32	3.34	2.964	2.717

*See Page 166 for sizes.

400 VOLTS

No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499	500-999
18F1319	118P22394S2	.022	GG	2.01	1.17	.90	.802	.735
18F1320	118P15494S2	.15	LL	2.37	1.38	1.07	.948	.869
18F1321	118P10594S2	1.0	T	3.40	1.98	1.53	1.357	1.244
18F1322	118P20594S2	2.0	W	4.95	2.89	2.23	1.980	1.815
18F1323	118P30594S2	3.0	Z	5.85	3.41	2.63	2.340	2.145

*See Page 166 for sizes.

600 VOLTS

18F1324	118P10396S2	.01	GG	2.01	1.17	.91	.804	.737
18F1325	118P15396S2	.015	GG	2.03	1.18	.91	.810	.743
18F1326	118P22396S2	.022	HH	2.04	1.19	.92	.816	.748
18F1327	118P33396S2	.033	HH	2.04	1.19	.92	.816	.748
18F1328	118P47396S2	.047	KK	2.07	1.20	.93	.826	.757
18F1329	118P68396S2	.068	KK	2.16	1.26	.97	.864	.792
18F1330	118P10496S2	.1	LL	2.34	1.37	1.05	.936	.858
18F1331	118P15496S2	.15	J	2.43	1.42	1.09	.972	.891
18F1332	118P22496S2	.22	K	2.57	1.50	1.15	1.026	.941
18F1333	118P33496S2	.33	M	2.85	1.66	1.28	1.140	1.045
18F1334	118P47496S2	.47	P	3.08	1.79	1.38	1.230	1.128
18F1335	118P68496S2	.68	Q	3.33	1.94	1.50	1.332	1.221
18F1336	118P10596S2	1.0	W	4.35	2.54	1.96	1.740	1.595
18F1337	118P15596S2	1.5	W	4.59	2.68	2.07	1.836	1.683
18F1338	118P20596S2	2.0	X	5.55	3.24	2.50	2.220	2.035
18F1339	118P25596S2	2.5	Z	6.30	3.68	2.84	2.520	2.310

*See page 166 for sizes.

Type 112D POLARIZED ETCHED FOIL TANTALUM CAPACITORS

High capacitance stability even at low operating temperatures, unlike aluminum-foil electrolytics. With insulating outer cover. Extremely low current leakage. New end seal design with virtually leakproof TFE-fluoro-carbon elastomer seal. Tolerance: +75, —15%.

15 WORKING VOLTS DC

No.	Type	Mfd.	Sz.*	1-9	10-24	25-49	50-99	100-499	500-999
18F1250	112D156C7015D1	15	AA	4.30	3.60	2.65	1.99	1.50	1.31
18F1251	112D606C7015G1	60	BB	7.65	5.30	4.10	3.10	2.30	2.12
18F1252	112D207C7015J1	200	CC	12.70	9.20	7.10	5.35	3.95	3.61
18F1253	112D407C7015M1	400	DD	20.65	14.95	11.50	8.65	6.35	5.82
18F1254	112D587C7015P1	580	EE	27.45	19.85	15.30	11.50	8.45	7.71

25 WORKING VOLTS DC

18F1255	112D106C7025D1	10	AA	4.30	3.60	2.65	1.99	1.50	1.31
18F1256	112D406C7025G1	40	BB	7.65	5.30	4.10	3.10	2.30	2.12
18F1257	112D127C7025J1	120	CC	12.70	9.20	7.10	5.35	3.95	3.61
18F1258	112D257C7025M1	250	DD	20.65	14.95	11.50	8.65	6.35	5.82
18F1259	112D357C7025P1	350	EE	27.45	19.85	15.30	11.50	8.45	7.71

30 WORKING VOLTS DC

18F1260	112D805C7030D1	8	AA	4.30	3.60	2.65	1.99	1.50	1.31
18F1261	112D326C7030G1	32	BB	7.65	5.30	4.10	3.10	2.30	2.12
18F1262	112D117C7030J1	110	CC	12.70	9.20	7.10	5.35	3.95	3.61
18F1263	112D227C7030M1	220	DD	20.65	14.95	11.50	8.65	6.35	5.82
18F1264	112D307C7030P1	300	EE	27.45	19.85	15.30	11.50	8.45	7.71

50 WORKING VOLTS DC

18F1265	112D455C7050D1	4.5	AA	4.30	3.60	2.65	1.99	1.50	1.31
18F1266	112D186C7050G1	18	BB	7.65	5.30	4.10	3.10	2.30	2.12
18F1267	112D606C7050J1	60	CC	12.70	9.20	7.10	5.35	3.95	3.61
18F1268	112D107C7050M1	100	DD	20.65	14.95	11.50	8.65	6.35	5.82
18F1269	112D157C7050P1	150	EE	27.45	19.85	15.30	11.50	8.45	7.71

60 WORKING VOLTS DC

18F1270	112D405C7060D1	4	AA	4.30	3.60	2.65	1.99	1.50	1.31

75 WORKING VOLTS DC

18F1271	112D305C7075D1	3	AA	4.30	3.60	2.65	1.99	1.50	1.31
18F1272	112D126C7075G1	12	BB	7.65	5.30	4.10	3.10	2.30	2.12
18F1273	112D306C7075J1	30	CC	12.70	9.20	7.10	5.35	3.95	3.61
18F1274	112D706C7075M1	70	DD	20.65	14.95	11.50	8.65	6.35	5.82
18F1275	112D107C7075P1	100	EE	27.45	19.85	15.30	11.50	8.45	7.71

100 WORKING VOLTS DC

18F1276	112D205C7100D1	2	AA	4.30	3.60	2.65	1.99	1.50	1.31
18F1277	112D805C7100G1	8	BB	7.65	5.30	4.10	3.10	2.30	2.12
18F1278	112D256C7100J1	25	CC	12.70	9.20	7.10	5.35	3.95	3.61
18F1279	112D506C7100M1	50	DD	20.65	14.95	11.50	8.95	6.35	5.82
18F1280	112D706C7100P1	70	EE	27.45	19.85	15.30	11.50	8.45	7.71

150 WORKING VOLTS DC

18F1281	112D105C7150D1	1	AA	4.30	3.60	2.65	1.99	1.50	1.31
18F1282	112D405C7150G1	4	BB	7.65	5.30	4.10	3.10	2.30	2.12
18F1283	112D136C7150J1	13	CC	12.70	9.20	7.10	5.35	3.95	3.61
18F1284	112D256C7150M1	25	DD	20.65	14.95	11.50	8.65	6.35	5.82
18F1285	112D366C7150P1	36	EE	27.45	19.85	15.30	11.50	8.45	7.71

*See Page 166 for sizes.

NEWARK CAN SUPPLY ALL YOUR
CAPACITOR NEEDS.

SPRAGUE CAPACITORS

FACTORY COMPETITIVE
INDUSTRIAL PRICES AVAILABLE

FOIL TYPE TANTALUM CAPACITORS

Miniature tantalum foil electrolytic capacitors Meet MIL Spec. requirements. Retains appreciable capacitance at low temp. Extremely low leakage current makes application possible where aluminum foil designs are unsatisfactory. Used in control equipment, computers, airborne radar and communications equipment. Tolerance ±20%. Plastic insulating wrap over case.

125°C PLAIN POLARIZED. TYPE 120 D

No.	Type	Mfd.	*Sz.	1-9	10-24	25-49	50-99	100-499	500-999
10 WORKING VOLTS DC									
18F1424	120D455X0010E1	4.5	TT	7.47	5.55	4.31	3.26	2.40	2.21
18F1425	120D186X0010H1	18	UU	9.90	7.35	5.70	4.30	3.15	2.90
18F1426	120D556X0010K1	55	VV	14.28	10.60	8.20	6.18	4.55	4.15
18F1427	120D117X0010N1	110	WW	18.41	13.65	10.56	7.95	5.80	5.33
18F1428	120D167X0010Q1	160	XX	23.64	17.55	13.55	10.19	7.45	6.82
15 WORKING VOLTS DC									
18F1429	120D305X0015E1	3	TT	7.47	5.55	4.31	3.26	2.40	2.21
18F1430	120D126X0015H1	12	UU	9.90	7.35	5.70	4.30	3.15	2.90
18F1431	120D356X0015K1	35	VV	14.28	10.60	8.20	6.18	4.55	4.15
18F1432	120D706X0015N1	70	WW	18.41	13.65	10.56	7.95	5.80	5.33
18F1433	120D107X0015Q1	100	XX	23.64	17.55	13.55	10.19	7.45	6.82
30 WORKING VOLTS DC									
18F1434	120D155X0030E1	1.5	TT	7.47	5.55	4.31	3.26	2.40	2.21
18F1435	120D605X0030H1	6	UU	9.90	7.35	5.70	4.30	3.15	2.90
18F1436	120D206X0030K1	20	VV	14.28	10.60	8.20	6.18	4.55	4.15
18F1437	120D406X0030N1	40	WW	18.41	13.65	10.56	7.95	5.80	5.33
18F1438	120D556X0030Q1	55	XX	23.64	17.55	13.55	10.19	7.45	6.82
50 WORKING VOLTS DC									
18F1439	120D105X0050E1	1	TT	7.47	5.55	4.31	3.26	2.40	2.21
18F1440	120D405X0050H1	4	UU	9.90	7.35	5.70	4.30	3.15	2.90
18F1441	120D146X0050K1	14	VV	14.28	10.60	8.20	6.18	4.55	4.15
18F1442	120D286X0050N1	28	WW	18.41	13.65	10.56	7.95	5.80	5.33
18F1443	120D406X0050Q1	40	XX	23.64	17.55	13.55	10.19	7.45	6.82
65 WORKING VOLTS DC									
18F1444	120D804X0065E1	.8	TT	7.47	5.55	4.31	3.26	2.40	2.21
18F1445	120D305X0065H1	3	UU	9.90	7.35	5.70	4.30	3.15	2.90
18F1446	120D106X0065K1	10	VV	14.28	10.60	8.20	6.18	4.55	4.15
18F1447	120D206X0065N1	20	WW	18.41	13.65	10.56	7.95	5.80	5.33
18F1448	120D306X0065Q1	30	XX	23.64	17.55	13.55	10.19	7.45	6.82
100 WORKING VOLTS DC									
18F1449	120D504X0100E1	.5	TT	7.47	5.55	4.31	3.26	2.40	2.21
18F1450	120D205X0100H1	2	UU	9.90	7.35	5.70	4.30	3.15	2.90
18F1451	120D705X0100K1	7	VV	14.28	10.60	8.20	6.18	4.55	4.15
18F1452	120D146X0100N1	14	WW	18.41	13.65	10.56	7.95	5.80	5.33
18F1453	120D206X0100Q1	20	XX	23.64	17.55	13.55	10.19	7.45	6.82
150 WORKING VOLTS DC									
18F1454	120D354X0150E1	.35	TT	7.47	5.55	4.31	3.26	2.40	2.21
18F1455	120D155X0150H1	1.5	UU	9.90	7.35	5.70	4.30	3.15	2.90
18F1456	120D505X0150K1	5	VV	14.28	10.60	8.20	6.18	4.55	4.15
18F1457	120D106X0150N1	10	WW	18.41	13.65	10.56	7.95	5.80	5.33
18F1458	120D156X0150Q1	15	XX	23.64	17.55	13.55	10.19	7.45	6.82

*See sizes below.

85°C PLAIN POLARIZED. TYPE 110 D

No.	Type	Mfd.	*Sz.	1-9	10-24	25-49	50-99	100-499	500-999
6 WORKING VOLTS DC									
18F1476	110D356X0006G1	35	BB	6.70	4.85	3.75	2.85	2.10	1.94
18F1477	110D107X0006J1	100	CC	10.55	7.65	5.90	4.45	3.25	3.01
10 WORKING VOLTS DC									
18F1478	110D256X0010G1	25	BB	6.70	4.85	3.75	2.85	2.10	1.94
15 WORKING VOLTS DC									
18F1479	110D455X0015D1	4.5	AA	4.30	3.60	2.65	1.99	1.50	1.31
25 WORKING VOLTS DC									
18F1480	110D305X0025D1	3	AA	4.30	3.60	2.65	1.99	1.50	1.31
18F1481	110D126X0025G1	12	BB	6.70	4.85	3.75	2.85	2.10	1.94
18F1482	110D356X0025J1	35	CC	10.55	7.65	5.90	4.45	3.25	3.01
18F1483	110D706X0025M1	70	DD	14.70	10.65	8.20	6.20	4.55	4.17
30 WORKING VOLTS DC									
18F1484	110D255X0030D1	2.5	AA	4.30	3.60	2.65	1.99	1.50	1.31
18F1485	110D106X0030G1	10	BB	6.70	4.85	3.75	2.85	2.10	1.94
50 WORKING VOLTS DC									
18F1486	110D155X0050D1	1.5	AA	4.30	3.60	2.65	1.99	1.50	1.31
18F1487	110D605X0050G1	6	BB	6.70	4.85	3.75	2.85	2.10	1.94
18F1488	110D206X0050J1	20	CC	10.55	7.65	5.90	4.45	3.25	3.01
18F1489	110D406X0050M1	40	DD	14.70	10.65	8.20	6.20	4.55	4.17
60 WORKING VOLTS DC									
18F1490	110D505X0060G1	5	BB	6.70	4.85	3.75	2.85	2.10	1.94
75 WORKING VOLTS DC									
18F1491	110D105X0075D1	1	AA	4.30	3.60	2.65	1.99	1.50	1.31
150 WORKING VOLTS DC									
18F1492	110D504X0150D1	.5	AA	4.30	3.60	2.65	1.99	1.50	1.31
18F1493	110D205X0150G1	2	BB	6.70	4.85	3.75	2.85	2.10	1.94
18F1494	110D705X0150J1	7	CC	10.55	7.65	5.90	4.45	3.25	3.01
18F1495	110D146X0150M1	14	DD	14.70	10.65	8.20	6.20	4.55	4.17

*See sizes at right.

TYPE 132D "CUP TYPE" TANTALEX CAPACITORS

Stable in performance characteristics over entire temperature range: —55°C to 85°C operation at full rating. 100°C operation with 15% derating. Extremely low leakage. Large capacitance in small physical size. —15, +20% tolerance.

No.	Type	Mfd.	*Sz.	1-24	25-49	50-99	100-499
6 WORKING VOLTS DC							
18F1500	132D306C2006U0	30	PP	2.70	2.16	1.83	1.56
18F1501	132D147C2006V0	140	RR	5.85	4.68	3.95	3.37
18F1502	132D327C2006T0	320	SS	7.11	5.69	4.80	4.09
8 WORKING VOLTS DC							
18F1503	132D256C2008U0	25	PP	2.70	2.16	1.83	1.56
10 WORKING VOLTS DC							
18F1504	132D206C2010U0	20	PP	2.70	2.16	1.83	1.56
18F1505	132D107C2010V0	100	RR	5.85	4.68	3.95	3.37
18F1506	132D257C2010T0	250	SS	7.11	5.69	4.80	4.09
15 WORKING VOLTS DC							
18F1507	132D156C2015U0	15	PP	2.70	2.16	1.83	1.56
18F1508	132D706C2015V0	70	RR	5.85	4.68	3.95	3.37
18F1509	132D177C2015T0	170	SS	7.11	5.69	4.80	4.09
25 WORKING VOLTS DC							
18F1510	132D106C2025U0	10	PP	2.70	2.16	1.83	1.56
30 WORKING VOLTS DC							
18F1511	132D805C2030U0	8	PP	2.70	2.16	1.83	1.56
18F1512	132D406C2030V0	40	RR	5.85	4.68	3.95	3.37
18F1513	132D107C2030T0	100	SS	7.11	5.69	4.80	4.09
50 WORKING VOLTS DC							
18F1514	132D505C2050U0	5	PP	2.70	2.16	1.83	1.56
18F1515	132D256C2050V0	25	RR	5.85	4.68	3.95	3.37
18F1516	132D606C2050T0	60	SS	7.11	5.69	4.80	4.09
60 WORKING VOLTS DC							
18F1517	132D405C2060U0	4	PP	2.70	2.16	1.83	1.56
18F1518	132D206C2060V0	20	RR	5.85	4.68	3.95	3.37
18F1519	132D506C2060T0	50	SS	7.11	5.69	4.80	4.09
75 WORKING VOLTS DC							
18F1520	132D355C2075U0	3.5	PP	2.70	2.16	1.83	1.56
18F1521	132D156C2075V0	15	RR	5.85	4.68	3.95	3.37
18F1522	132D406C2075T0	40	SS	7.11	5.69	4.80	4.09
100 WORKING VOLTS DC							
18F1523	132D205C2100U0	2	PP	2.70	2.16	1.83	1.56
18F1524	132D116C2100V0	11	RR	5.85	4.68	3.95	3.37
18F1525	132D306C2100T0	30	SS	7.11	5.69	4.80	4.09
125 WORKING VOLTS DC							
18F1526	132D175C2125U0	1.7	PP	2.70	2.16	1.83	1.56
18F1527	132D905C2125V0	9	RR	5.85	4.68	3.95	3.37
18F1528	132D256C2125T0	25	SS	7.11	5.69	4.80	4.09

*See sizes below.

SIZES FOR SPRAGUE CAPACITOR TYPES 150, 112D, 118P, 109D, 110D, 120D, AND 132D.

*SIZES

(A)	.135" x .322"L	(AA)	.250" dia. x ¾"L
(B)	.185" x .510"L	(BB)	.343" x 15/16"L
(C)	.235" x 23/32"L	(CC)	.437" x 1½"L
(D)	.312" dia. x 15/16"L	(DD)	.437" x 2 3/16"L
(E)	.400" dia. x 15/16"L	(EE)	.437" x 2 13/16"L
(F)	.400" dia. x 1 1/16"L	(FF)	.235" dia. x ¾"L
(G)	.400" dia. x 1 5/16"L	(GG)	.312" dia. x ⅞"L
(H)	.400" dia. x 1 9/16"L	(HH)	.312" dia. x 1⅛"L
(J)	.562" dia. x 1⅛"L	(JJ)	.400" dia. x ⅞"L
(K)	.562" dia. x 1⅜"L	(KK)	.400" dia. x 1⅛"L
(L)	.562" dia. x 1⅞"L	(LL)	.500" dia. x 1⅛"L
(M)	.562" dia. x 1⅝"L	(MM)	.203" dia. x 33/64"L
(N)	.670" dia. x1⅜"L	(NN)	.296" dia. x 45/64"L
(P)	.670" dia. x 1⅝"L	(PP)	.218" dia. x 15/32"L
(Q)	.670" dia. x 1⅞"L	(RR)	.281" dia. x 11/16"L
(R)	.289" x .722"L	(SS)	.375" dia. x 49/64"L
(S)	.351" x .822"L	(TT)	.203" dia. x 27/32"L
(T)	.750" dia. x 1⅞"L	(UU)	.296" dia. x 1⅛"L
(U)	.750" dia. x 2⅜"L	(VV)	.390" dia. x 1 21/32"L
(V)	.750" dia. x 2⅝"L	(WW)	.390" dia. x 2 11/32"L
(W)	1.000" dia. x 1⅞"L	(XX)	.390" dia. x 2 31/32"L
(X)	1.000" dia. x 2⅛"L	(YY)	.175" x ¾"L
(Y)	1.000" dia. x 2⅜"L	(ZZ)	.195" x ¾"L
(Z)	1.000" dia. x 2⅝"L		

CAPACITORS AND CAPACITOR CLIPS

SPRAGUE

TYPE 109D SINTERED-ANODE TANTALEX CAPACITORS

May be operated to 85°C at rated voltage and to 105°C with 15% voltage derating. Standard units have outer plastic insulating sleeves. +20, —15% capacitance tolerance.

6 WORKING VOLTS DC

Stk. No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499
18F1459	109D306C2006C2	30	MM	2.75	2.21	1.88	1.61
18F1460	109D147C2006F2	140	NN	5.90	4.73	4.00	3.42

8 WORKING VOLTS DC

Stk. No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499
18F1461	109D256C2008C2	25	MM	2.75	2.21	1.88	1.61

10 WORKING VOLTS DC

Stk. No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499
18F1462	109D206C2010C2	20	MM	2.75	2.21	1.88	1.61
18F1463	109D107C2010F2	100	NN	5.90	4.73	4.00	3.42

15 WORKING VOLTS DC

Stk. No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499
18F1464	109D156C2015C2	15	MM	2.75	2.21	1.88	1.61
18F1465	109D706C2015F2	70	NN	5.90	4.73	4.00	3.42

25 WORKING VOLTS DC

Stk. No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499
18F1466	109D106C2025C2	10	MM	2.75	2.21	1.88	1.61

30 WORKING VOLTS DC

Stk. No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499
18F1467	109D805C2030C2	8	MM	2.75	2.21	1.88	1.61
18F1468	109D406C2030F2	40	NN	5.90	4.73	4.00	3.42

50 WORKING VOLTS DC

Stk. No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499
18F1469	109D505C2050C2	5	MM	2.75	2.21	1.88	1.61
18F1470	109D256C2050F2	25	NN	5.90	4.73	4.00	3.42

60 WORKING VOLTS DC

Stk. No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499
18F1471	109D405C2060C2	4	MM	2.75	2.21	1.88	1.61
18F1472	109D206C2060F2	20	NN	5.90	4.73	4.00	3.42

75 WORKING VOLTS DC

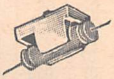
Stk. No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499
18F1473	109D355C2075C2	3.5	MM	2.75	2.21	1.88	1.61
18F1474	109D156C2075F2	15	NN	5.90	4.73	4.00	3.42

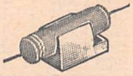
100 WORKING VOLTS DC

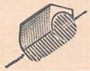
Stk. No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499
18F1475	109D116C2100F2	11	MM	5.90	4.73	4.00	3.42

See page 166 for sizes

CAPACITOR MOUNTING CLIP CORPORATION







Nylon clip mounts capacitor parallel with circuit board and stops capacitor movement. Provides faster assembly of leads. Insulates 90% of the capacitor from other components on circuit board. Operating temperature: —50° to +130°C.

Stk. No.	Style	Mil No.	Case Type	Inside Dia.	L	W	H	1-24	25-49	50-99	100-499	500-999	1000-Up
43F100	NA	CL-44	T-1	.170	.600	.334	.310	.20	.18	.12	.10	.09	.084
43F101	NB	CL-44	T-2	.230	.760	.438	.418	.30	.26	.15	.13	.12	.113
43F102	NC	CL-44	T-3	.300	.890	.528	.512	.40	.34	.20	.17	.16	.154
43F103	SNC-6	CS-12	B	.140	.510	.180	.240	.20	.18	.12	.10	.09	.084
43F104	SNC-7	CS-12	C	.220	.720	.250	.340	.30	.26	.15	.13	.12	.113
43F105	SNC-8	CS-12	D	.280	.820	.300	.380	.40	.34	.20	.17	.16	.154
43F106	SPT-1	CL-64	T-1	.140	.440	.200	.245	.20	.18	.12	.10	.09	.084
43F107	SPT-2	CL-64	T-2	.235	.600	.300	.310	.30	.26	.15	.13	.12	.113
43F108	SPT-3	CL-64	T-3	.300	.740	.360	.400	.40	.34	.20	.17	.16	.154

NYLON MOUNTING SCREWS FOR ABOVE

43F109. 2-56x1 3/32" long to mount SPT, SNC and NA clips. **NET.04**

43F110. 4-40x17/32" long to mount NB and NC clips. **NET.........04**

PLASTIC CAPACITORS

TYPE AM METAL CLAD MINIATURE CAPACITORS

Capacitors

Type AM metal clad miniature capacitors utilize metalized mylar film as the solid dielectric and are hermetically sealed. Windings are extended foil (non-inductive) construction. The capacitors are self healing and non-sparking. Tolerance is 20%. Sizes shown are for diameter and length. Power factor is less than 1% at 25°C except that case diameters of .235 or less will have a power factor of less than 1.5%.

200 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
19F1558	AM2-223	.022	.187x⅝	1.08	.83	.77	.68
19F1559	AM2-333	.033	.235x⅝	1.15	.88	.82	.72
19F1560	AM2-473	.047	.235x⅝	1.16	.90	.83	.73
19F1561	AM2-683	.068	.235x13/16	1.16	.90	.83	.73
19F1562	AM2-104	.1	.235x13/16	1.17	.90	.84	.74
19F1563	AM2-154	.15	.312x13/16	1.18	.91	.84	.74
19F1564	AM2-224	.22	.312x13/16	1.21	.93	.86	.76
19F1565	AM2-334	.33	.400x13/16	1.36	1.05	.97	.86
19F1566	AM2-474	.47	.400x1⅛	1.40	1.08	1.00	.88
19F1567	AM2-684	.68	.400x1⅛	1.46	1.13	1.04	.92
19F1568	AM2-105	1.0	.562x1⅛	1.70	1.31	1.21	1.07
19F1569	AM2-205	2.0	.670x1 5/16	2.31	1.79	1.65	1.46
19F1570	AM2-405	4.0	.670x1 13/16	2.93	2.26	2.09	1.84
19F1571	AM2-505	5.0	.750x1 13/16	3.08	2.38	2.20	1.94
19F1572	AM2-805	8.0	1.000x1 13/16	4.52	3.49	3.23	2.85
19F1573	AM2-106	10.0	1.000x2 5/16	5.81	4.49	4.15	3.66

300 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
19F1580	AM3-104	.10	.312x13/16	1.19	.92	.85	.75
19F1581	AM3-154	.15	.400x13/16	1.29	1.00	.92	.81
19F1582	AM3-224	.22	.400x1⅛	1.32	1.02	.95	.83
19F1583	AM3-334	.33	.400x1⅛	1.38	1.07	.99	.87
19F1584	AM3-474	.47	.562x1⅛	1.65	1.27	1.18	1.04
19F1585	AM3-684	.68	.562x1⅛	1.75	1.35	1.25	1.10
19F1586	AM3-105	1.0	.562x1 5/16	1.90	1.47	1.36	1.20
19F1587	AM3-205	2.0	.750x1 5/16	2.93	2.26	2.09	1.84
19F1588	AM3-405	4.0	1.00 x1 7/16	4.06	3.13	2.90	2.55
19F1589	AM3-505	5.0	1.00 x1 13/16	4.56	3.52	3.26	2.87

Newark Maintains Seven Giant Warehouses to Insure Fastest Delivery from Stock. Make Newark Your One Point Source!

TYPE "OF" HIGH V. GLASS CAPACITORS

Plastic film dielectric. Useful for high voltage power filter. Mount in any position. Temperature range —55°C. to +85°C. Tolerance ±10%. ⅜x8-32 screw terminals except * marked have tinned copper pigtails. Heavy wall, hard glass case.

PLASTIC
CAPACITORS
INC.

Stk. No.	Type	Cap. Mfd.	Volts	Size	1-9	10-24	25-49	50-99	100-249
*19F700	20-103	.01	2000	1 3/16x19/32"	2.10	2.10	1.93	1.73	1.51
19F701	20-503	.05	2000	1¾x¾"	2.28	2.28	2.09	1.87	1.64
19F702	20-104	.10	2000	2¼x¾"	2.33	2.33	2.14	1.91	1.67
19F703	20-254	.25	2000	2¾x29/32"	2.69	2.69	2.58	2.30	2.02
*19F704	30-103	.01	3000	1 9/16x19/32"	2.46	2.46	2.30	2.13	1.62
19F705	30-203	.02	3000	1¾x¾"	2.64	2.64	2.46	2.28	1.73
19F706	30-503	.05	3000	2¼x¾"	2.70	2.70	2.51	2.33	1.77
19F707	30-104	.10	3000	1¾x1⅛"	3.19	3.19	2.97	2.75	2.09
19F1290	30-254	.25	3000	2x1⅜"	3.75	3.75	3.48	3.21	2.55
19F1291	30-504	.50	3000	2¾x1⅝"	4.70	4.70	4.37	4.03	3.02
19F708	50-103	.01	5000	1¾x¾"	3.54	3.54	3.14	2.93	2.53
19F709	50-203	.02	5000	2¼x¾"	3.61	3.61	3.20	2.99	2.58
19F710	50-503	.05	5000	2¼x29/32"	4.17	4.17	3.70	3.45	2.98
19F711	50-104	.10	5000	2¼x1⅜"	4.84	4.84	4.53	4.22	3.62
19F1292	50-102	.001	5000	1 3/16x19/32"	3.25	3.25	2.88	2.70	2.33
19F1293	50-502	.005	5000	1⅝x19/32"	3.30	3.30	2.91	2.72	2.35
19F1294	50-254	.25	5000	3x1⅝"	5.72	5.72	5.35	4.97	4.20
19F1295	50-504	.50	5000	6x1⅝"	7.73	7.73	7.22	6.71	5.68
19F1296	80-502	.005	8000	1¾x¾"	4.12	3.61	3.20	2.99	2.57
19F1297	80-103	.01	8000	2¼x¾"	4.20	3.68	3.25	3.05	2.62
19F1298	80-104	.10	8000	3⅝x1⅝"	7.76	6.63	6.22	5.58	4.77
*19F712	100-102	.001	10KV	1⅝x19/32"	4.16	3.64	3.23	3.02	2.60
19F713	100-502	.005	10KV	1¾x13/16"	4.76	4.17	3.69	3.45	2.98
19F714	100-103	.01	10KV	2¼x29/32"	5.28	4.62	4.09	3.83	3.30
19F715	100-203	.02	10KV	2¾x1⅛"	5.76	5.05	4.40	4.17	3.60
19F1299	150-103	.01	15KV	3¾x1⅛"	7.72	7.06	6.39	5.88	5.21
19F716	200-102	.001	20KV	3½x¾"	8.63	7.85	7.09	6.47	5.47
19F717	200-202	.002	20KV	3½x13/16"	9.18	8.37	7.54	6.89	5.83
19F718	200-502	.005	20KV	3½x1⅛"	11.16	10.14	9.15	8.37	7.17
19F719	200-103	.01	20KV	4½x1⅛"	11.20	10.20	9.20	8.40	7.20
*19F720	300-501	.0005	30KV	4 9/16x19/32"	10.13	9.28	8.19	7.65	6.55
19F722	300-202	.002	30KV	5x29/32"	13.10	11.92	10.52	9.83	8.42
19F723	300-502	.005	30KV	5x1⅜"	15.85	14.30	13.05	12.12	10.27
19F724	600-501	.0005	60KV	10x¾"	14.45	13.25	12.03	11.12	9.33
19F725	600-102	.001	60KV	10x29/32"	17.48	16.00	14.55	13.47	11.28
19F726	600-202	.002	60KV	10x1⅜"	18.77	17.20	15.65	14.47	12.12

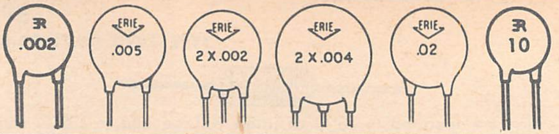
PRECISION CERAMICONS

SEVEN WAREHOUSES
INSURES FAST SERVICES

ERIE DISC CERAMICONS

High Stability General Purpose Ceramicons. Consist of a flat ceramic dielectric with silver fired onto the dielectric. Lead wires are firmly soldered to the silver electrodes, and the unit is given a protective coating of phenolic. Low series inductance assures efficient high frequency operation. 600 WVDC—1500 VDC test ±10% Tolerance. Av. Shpg. Wt., 1 oz.

Stk. No.	Type	MMF	Diam.	1-49	50-99	100-249	250-499	500-999
19F1000	831U2M509D	5	.290"	.09	.07	.06	.042	.04
19F1001	831U2M100F	10	.290"	.09	.07	.06	.042	.04
19F1002	831U2M120K	12	.290"	.09	.07	.06	.042	.04
19F1003	831U2M150K	15	.290"	.09	.07	.06	.042	.04
19F1004	831U2M180K	18	.290"	.09	.07	.06	.042	.04
19F1005	831U2M200K	20	.290"	.09	.07	.06	.042	.04
19F1006	831U2M220K	22	.290"	.09	.07	.06	.042	.04
19F1009	831U2M250K	25	.290"	.09	.07	.06	.042	.04
19F1008	831U2M270K	27	.290"	.09	.07	.06	.042	.04
19F1010	831U2M300K	30	.290"	.09	.07	.06	.042	.04
19F1011	831U2M330K	33	.290"	.09	.07	.06	.042	.04
19F1012	831U2M390K	39	.290"	.09	.07	.06	.042	.04
19F1013	831U2M470K	47	.290"	.09	.07	.06	.042	.04
19F1014	831U2M500K	50	.290"	.09	.07	.06	.042	.04
19F1015	831U2M510K	51	.290"	.09	.07	.06	.042	.04
19F1016	831X5R560K	56	.290"	.09	.07	.06	.042	.04
19F1017	831X5R680K	68	.290"	.09	.07	.06	.042	.04
19F1018	831X5R750K	75	.290"	.09	.07	.06	.042	.04
19F1019	831X5R820K	82	.290"	.09	.07	.06	.042	.04
19F1020	831X5R910K	91	.290"	.09	.07	.06	.042	.04
19F1021	831X5R101K	100	.290"	.09	.07	.06	.042	.04
19F1022	831X5R121K	120	.290"	.09	.07	.06	.042	.04



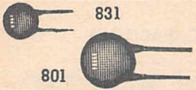
Stk. No.	Type	MMF	Diam.	1-49	50-99	100-249	250-499	500-999
19F1023	831X5R151K	150	.290"	.11	.09	.07	.051	.049
19F1024	831X5R181K	180	.290"	.13	.10	.08	.06	.057
19F1025	831X5R201K	200	.290"	.13	.10	.08	.06	.057
19F1026	831X5R221K	220	.290"	.11	.09	.07	.051	.049
19F1027	831X5R241K	240	.290"	.13	.10	.08	.06	.057
19F1029	831X5R271K	270	.290"	.11	.09	.07	.051	.049
19F1030	831X5R301K	300	.290"	.13	.10	.08	.06	.057
19F1031	831X5R331K	330	.290"	.11	.09	.07	.051	.049
19F1032	831X5R361K	360	.290"	.13	.10	.08	.06	.057
19F1033	831X5R391K	390	.290"	.11	.09	.07	.051	.049
19F1034	831X5R471K	470	.290"	.11	.09	.07	.051	.049
19F1035	801X5R501K	500	.360"	.11	.09	.07	.051	.049
19F1037	801X5R561K	560	.360"	.11	.09	.07	.051	.049
19F1038	801X5R681K	680	.360"	.11	.09	.07	.051	.049
19F1039	851X5R751K	750	.437"	.11	.09	.07	.051	.049
19F1040	851X5R821K	820	.437"	.11	.09	.07	.051	.049
19F1041	851X5R911K	910	.437"	.13	.10	.08	.06	.057
19F1042	851X5R102K	1000	.437"	.11	.09	.07	.051	.049
19F1043	811X5R122K	1200	.593"	.12	.09	.07	.053	.05
19F1044	811X5R152K	1500	.593"	.12	.09	.07	.053	.05
19F1045	811X5R182K	1800	.593"	.12	.09	.07	.053	.05

HI-K BY PASS AND COUPLING CERAMICONS Tolerance is GMV

Stk. No.	Type	MFD	Diam.	1-49	50-99	100-249	250-499	500-999
19F1046	831Z5V471P	.00047 mfd.	.280"	.09	.07	.06	.042	.04
19F1047	831Z5V801P	.0008 mfd	.280"	.08	.06	.05	.036	.034
19F690	801Z5V102P	.001 mfd.	.350"	.08	.06	.05	.036	.034
19F1048	801Z5V122P	.0012 mfd.	.350"	.09	.07	.06	.042	.04
19F691	801Z5V152P	.0015 mfd.	.350"	.08	.06	.05	.036	.034
19F692	801Z5V202P	.002 mfd.	.350"	.09	.07	.06	.042	.04
19F682	851Z5V222P	.0022 mfd.	.437"	.09	.07	.06	.042	.04
19F1050	851Z5V252P	.0025 mfd.	.437"	.11	.09	.07	.051	.049
19F1051	851Z5V272P	.0027 mfd.	.437"	.11	.09	.07	.051	.049

Stk. No.	Type	MFD	Diam.	1-49	50-99	100-249	250-499	500-999
19F1052	851Z5V302P	.003 mfd.	.437"	.11	.09	.07	.051	.049
19F1053	851Z5V332P	.0033 mfd.	.437"	.09	.07	.06	.042	.04
19F1054	811Z5V402P	.004 mfd.	.550"	.13	.10	.08	.058	.054
19F1055	811Z5V472P	.0047 mfd.	.550"	.10	.07	.06	.044	.042
19F693	811Z5V502P	.005 mfd.	.550"	.10	.07	.06	.044	.042
19F1056	811Z5V682P	.0068 mfd.	.550"	.11	.08	.07	.049	.046
19F689	811Z5V103P	.01 mfd.	.550"	.11	.08	.07	.049	.046
19F1057	841Z5V153P	.015 mfd.	.675"	.14	.11	.09	.063	.06
19F1058	841Z5V203P	.02 mfd.	.675"	.14	.11	.09	.063	.06

MIL-C-11015B DISC CERAMICS ±10% CAPACITANCE TOLERANCE



MIL-C-1105C capacitors meet all requirements for TV, industrial electronics, and military equipment at +85°C. All .156 inches thick.

Style 831: .290 disc dia., .250 lead spacing. Style 801: .360 disc dia., .250 lead spacing. Style 811: .593 disc dia., .375 lead spacing. Style 841: .675 disc dia., .375 lead spacing. 600 VDC. 1500 VDC Flash Test. Av. Shpg. Wt., 1 oz.

Stk. No.	MIL Designation	Body Style	Cap. Mmf.	1-49	50-99	100-249	250-499	500-999
19F2114	CK60AW681K	831	680	.19	.15	.121	.087	.082
19F2115	CK60AW821K	831	820	.19	.15	.121	.087	.082
19F2116	CK60AW102K	831	1000	.19	.15	.121	.087	.082
19F2117	CK60AW152K	831	1500	.20	.15	.124	.089	.084
19F2118	CK60AX221K	831	220	.19	.15	.121	.087	.082
19F2119	CK60AX331K	831	330	.19	.15	.12	.087	.083
19F2120	CK60AX471K	831	470	.19	.15	.12	.087	.083
19F2121	CK60BV2R2K	831	2.2	.32	.24	.20	.14	.136
19F2122	CK60BV3R3K	831	3.3	.21	.16	.13	.096	.091
19F2123	CK60BV4R7K	831	4.7	.21	.16	.13	.096	.091
19F2124	CK60BV6R8K	831	6.8	.21	.16	.134	.096	.091
19F2125	CK60BV100K	831	10	.21	.16	.134	.096	.091
19F2126	CK60BV150K	831	15	.21	.16	.134	.096	.091
19F2127	CK60BV220K	831	22	.21	.16	.134	.096	.091
19F2128	CK60BV330K	831	33	.21	.16	.134	.096	.091
19F2129	CK60BV470K	831	47	.21	.16	.134	.096	.091
19F2130	CK60BV680K	831	68	.21	.16	.134	.096	.091

Stk. No.	MIL Designation	Body Style	Cap. Mmf.	1-49	50-99	100-249	250-499	500-999
19F2131	CK60BX101K	831	100	.21	.16	.134	.096	.091
19F2132	CK60BX151K	831	150	.23	.18	.146	.105	.099
19F2133	CK61AW222K	801	2200	.20	.15	.124	.089	.084
19F2134	CK61BX221K	801	220	.23	.18	.146	.105	.099
19F2135	CK61BX331K	801	330	.23	.18	.146	.105	.099
19F2136	CK61BX471K	801	470	.23	.18	.146	.105	.099
19F2137	CK61BX681K	801	680	.23	.18	.146	.105	.099
19F2138	CK62AW332K	811	3300	.20	.15	.124	.089	.084
19F2139	CK62AW472K	811	4700	.22	.16	.135	.097	.092
19F2140	CK62AW682K	811	6800	.22	.17	.138	.099	.094
19F2141	CK62AW822K	811	8200	.22	.17	.138	.099	.094
19F2142	CK62AX222K	811	2200	.20	.15	.124	.089	.084
19F2143	CK62BX821K	811	820	.23	.18	.146	.105	.099
19F2144	CK62BX102K	811	1000	.23	.18	.146	.105	.099
19F2145	CK62BX152K	811	1500	.24	.18	.149	.107	.101
19F2146	CK63AW103K	841	10000	.22	.17	.138	.099	.094
19F2147	CK63BX222K	841	2200	.24	.18	.149	.107	.101
19F2148	CK63BX332K	841	3300	.24	.18	.149	.107	.101

CK-70 SERIES MIL-C-11015B FEED-THRU CERAMICONS

Highly recommended for by-passing R.F. to ground in feed-thru applications. Rugged enough to serve as a tie point for several connections, for supporting other circuit elements, and long enough for point to point wiring. Hermetically sealed. 1.25OHx5/16 HEX w/1/4-28 thread. ±20% tolerance. 500 WVDC. Av. Shpg. Wt.: 1 oz.

Stock No.	Type	Mmf.	1-49	50-99	100-249	250-499	500-999
19F2149	CK70AW102M	1000	1.33	1.00	.83	.60	.504
19F2150	CK70AW152M	1500	1.33	1.00	.83	.60	.504

CK-80 SERIES MIL-C-1105B STAND-OFF CERAMICONS

Widely used for the dual purpose of bypassing R.F. current to ground, and of mechanically supporting other circuit elements. Especially suited for VHF and UHF applications due to low inductance electrical parts and resultant high resonance frequency. .641H x 5/16 HEX x 1/4-28 thread. ±20% tolerance. 500 WVDC. Av. Shpg. Wt.: 1 oz.

Stock No.	Type	Mmf.	1-49	50-99	100 or more or 500 ass'td.	100-299	300-999
19F2151	CK80AW102M	1000	1.20	.90	.75	.54	.51
19F2152	CK80AW152M	1500	1.20	.90	.75	.54	.51

TYPE NPO CERAMICONS

Zero temperature coefficient types for frequency-determining applications where no capacity change is desired. "Q" above 30 mmf exceeds 1000 decreasing as capacity decreases. Tol. ±25 mmf through 10 mmf. Others ±5%. 600 WVDC. Wt. 10 oz.

Stk. No.	Type	Mmf.	Size	1-49	50-99	100-249	250-499	500-999
19F1092	301COK508C	.5	.40x.200"	.10	.08	.06	.045	.043
19F1093	301COK688C	.68	.40x.200"	.10	.08	.06	.045	.043
19F1094	301COK109C	1.0	.40x.200"	.10	.08	.06	.045	.043
19F500	301COK159C	1.5	.40x.200"	.10	.08	.06	.045	.043
19F1096	301COJ229C	2.2	.40x.200"	.10	.08	.06	.045	.043
19F501	301COJ309C	3.0	.40x.200"	.10	.08	.06	.045	.043
19F502	301COJ339C	3.3	.40x.200"	.10	.08	.06	.045	.043

Stk. No.	Type	Mmf.	Size	1-49	50-99	100-249	250-499	500-999
19F503	301COH479C	4.7	.40x.200"	.10	.08	.06	.045	.043
19F504	301COH509C	5.0	.40x.200"	.10	.08	.06	.045	.043
19F505	301COH689C	6.8	.40x.200"	.22	.16	.14	.097	.092
19F506	301COH829C	8.2	.40x.200"	.22	.16	.14	.097	.092
19F507	301COG100C	10.0	.40x.200"	.22	.16	.14	.097	.092
19F508	315COG200J	20.0	.25x.562"	.18	.14	.12	.083	.078
19F510	316COG330J	33.0	.25x.812"	.19	.14	.12	.085	.08

ERIE CERAMICONS

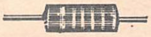


Fig. A

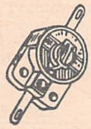


Fig. B

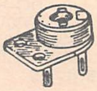


Fig. C

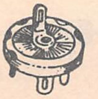


Fig. D

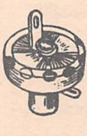


Fig. E

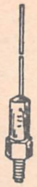


Fig. F

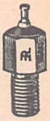


Fig. G

TYPE N750 TUBULAR CERAMICONS

Fig. A. Provide temperature compensation to eliminate drift. Have negative temperature coefficient of 750x10-6 mmf/°C. Tolerance, ±5%. 600 working volts D. C. Shipping weight, approx. 1 oz.

No.	Type	Mmf	Size	1-49	50-99	100-249	250-499	500-999
19F540	301U2J509C	5	½x¼″	.10	.08	.06	.045	.043
19F541	301U2J100C	10	½x¼″	.22	.16	.14	.097	.092
19F542	315U2J470J	47	½x¼″	.18	.14	.12	.083	.078
19F543	316U2J750J	75	13⁄16x¼″	.19	.14	.12	.085	.08
19F544	316U2J101J	100	13⁄16x¼″	.19	.14	.12	.085	.08

TYPE N330 CERAMICONS

Fig. A. Used to compensate for positive drift in oscillator coils. Have negative temperature coefficient of 330x10-6 mmf/°C. All have tolerance of ±5%. 600 working volts DC. 1 oz.

No.	Type	Mmf	Size	1-49	50-99	100-249	250-499	500-999
19F550	301S2H100C	10	.40 x.200″	.22	.16	.14	.097	.092
19F551	315S2H220J	22	.250x.562″	.18	.14	.12	.083	.078
19F552	315S2H330J	33	.250x.562″	.18	.14	.12	.083	.078
19F553	316S2H470J	47	.250x.812″	.19	.14	.12	.085	.08

TRIMACONS

Figs. B and C. Provide maximum stability and ease of adjustment. Capacity change constant per degree of rotation. Silver electrodes are fired onto ceramic rotor and base. Dustproof. Steatite base, 500 wkg. volts DC. Fig. C are 27⁄32x21⁄32x⅜″; Fig. D, 119⁄64x⅞x⅜″. *Zero temperature co-efficient. Shpg. wt., 1 oz.

No.	Fig.	Type	Mmf	1-49	50-99	100-249	250-499	500-999
19F520	B	*503-10R	1.5-7	1.04	.86	.69	.518	.431
19F522	B	503-24R	4-30	1.04	.86	.69	.518	.431
19F523	B	503-33R	7-45	1.04	.86	.69	.518	.431
19F530	C	557-34R	8-50	.75	.63	.50	.375	.310
19F1071	C	557-10R	1.5-7	.75	.63	.50	.375	.310

CV11 SERIES ERIE CERAMICON TRIMMERS—MIL-C-81A

19F1072	B	CV11A070	1.5-7	1.26	1.05	.84	.63	.525
19F1073	B	CV11A120	3-12	1.26	1.05	.84	.63	.525
19F1074	B	CV11A250	4.5-25	1.26	1.05	.84	.63	.525
19F1075	B	CV11B130	3-13	1.26	1.05	.84	.63	.525
19F1076	B	CV11B200	5-20	1.26	1.05	.84	.63	.525
19F1077	B	CV11C300	4-30	1.26	1.05	.84	.63	.525
19F1078	B	CV11C450	7-45	1.26	1.05	.84	.63	.525
19F1079	B	CV11D300	4-30	1.26	1.05	.84	.63	.525
19F1080	B	CV11D450	7-45	1.26	1.05	.84	.63	.525

SILVER BUTTON MICA CAPACITOR

Figs. D and E. Midget silver-mica capacitors. Type 654 has metal shell with three soldering ears; meets MIL-C-311; Type 662 has shell which fastens to chassis with 3-48 screw. Meets MIL-CB21. Size: 662, 11⁄32x7⁄16″. 654, 7⁄32x71⁄6″. Tolerance, ±10%. Shpg. wt., 1 oz.

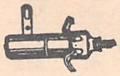
Stk. No.	Fig.	Type	Mmf	1-49	50-99	100-249	250-499	500-999
19F660	D	654-017 150K	15	.86	.72	.576	.432	.317
19F661	D	654-017 250K	25	.86	.72	.576	.432	.317
19F662	D	654-017 500K	50	.86	.72	.576	.432	.317
19F663	D	654-017 101K	100	.86	.72	.576	.432	.317
19F664	D	654-017 151K	150	.86	.72	.576	.432	.317
19F665	D	654-017 201K	200	.86	.72	.576	.432	.317
19F666	D	654-017 251K	250	.86	.72	.576	.432	.317
19F669	D	654-017 501K	500	1.02	.85	.676	.507	.372
19F671	D	654-017 102K	1000	1.72	1.43	1.14	.86	.628
19F563	E	662-003 101K	100	.85	.71	.566	.425	.311
19F565	E	662-003 201K	200	.85	.71	.566	.425	.311
19F566	E	662-003 251K	250	.85	.71	.566	.425	.311
19F569	E	662-003 501K	500	1.01	.84	.67	.50	.368
19F571	E	662-003 102K	1000	1.70	1.42	1.13	.85	.624

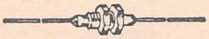
STAND-OFF CERAMICONS

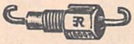
Figs. F and G. Stand-off ceramicons are used for the dual purposes of by-passing R.F. current to ground, and of mechanically supporting other circuit elements. Especially suited for V.H.F. and U.H.F. applications, due to low-inductance electrical paths and resulting high resonant frequency. Ceramicons mount directly on chassis. ±20%. 500 WVDC.

Stk. No.	Type	Mmf.	Fig.	Size	1-49	50-99	100-249	250-499	500-999
19F681	323X5U101M	100	F	13⁄16x¼″	.48	.36	.30	.214	.202
19F682	323X5U501M	500	F	13⁄16x¼″	.48	.36	.30	.214	.202
19F683	324X5U102M	1000	F	1 1⁄16x¼″	.50	.38	.31	.226	.213
19F684	324X5U152M	1500	F	1 1⁄16x¼″	.50	.38	.31	.226	.213
19F678	326X5U102M	1000	G	1 1⁄64x5⁄16″	.98	.73	.61	.44	.416
19F679	326X5U152M	1500	G	1 1⁄64x5⁄16″	.98	.73	.61	.44	.416

TUBULARS


A. Type 532


B. Type 362


C. Type 327

TYPE 532 TUBULAR TRIMMERS

Fig. A. Mount on panels .04″ to .065″ thick. 500 WVDC. Molded plastic, 15⁄32x9⁄32″.

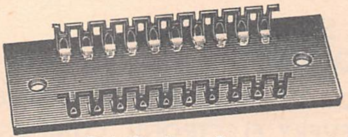
Stk. No.	Type	Mmf.	1-49	50-99	100-249	250-499	500-999
19F580	532-3R	0.5-5	.35	.28	.20	.15	.1125
19F581	532-8R	1.0-8	.35	.28	.20	.15	.1125

FEED-THRU CERAMICONS

Figs. B & C. Tie point term. *Herm. sealed and ruggedized. ±20% tol. 500 WVDC. ⅝x5⁄16″. Wt., 1 oz.

Stk. No.	Type	Fig.	Mmf.	1-49	50-99	100-249	250-499	500-999
19F590	362X5U152M	B	1500	.81	.61	.51	.392	.37
19F591	327X5U102M*	C	1000	1.17	.88	.73	.525	.496

NEW ERIE STRIP PACKAGE SYSTEM

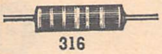

Strip Package System

Now you can be sure of quick, more efficient assembly than with piece-by-piece construction. Yes, with the Erie Strip Package System you'll have an easier job, one that's easy to service. The orderly line-up of components is simple and effortless to do . . . gives you faster, better soldering and perfect connections. Important too . . . you cut production costs! Strips are made to meet your specific needs. They're available with 10, 15, 20, 25 and 30 stations on clips. Features automatic clip assembly, automatic connector cutting, automatic component insertion and automatic component soldering. Flexible systems are adaptable to many complex circuit variations. Tolerances: ± .005. Units are of XXXP Phenolic.

Stock No.	Type	Stations	1-49	50-99	100-249	250-499	500-999
19F545	3976-205-2	10	.24	.22	.17	.16	.12
19F546	3976-205-3	15	.30	.28	.213	.20	.15
19F547	3976-205-4	20	.36	.33	.255	.24	.18
19F548	3976-205-5	25	.48	.44	.34	.32	.24
19F549	3976-205-6	30	.54	.50	.383	.36	.27

GENERAL PURPOSE CERAMICONS

ERIE GP GENERAL PURPOSE CERAMICONS—MIL-C-20-D TUBULARS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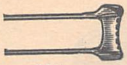
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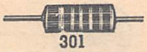
301

These tubular units are ideally suited for coupling and by-pass applications where temperature coefficient is not important, such as non frequency determining circuits. Working voltage is 600 volts DC based on 1,000 hour life test at 1,000 volts DC. Flash test 1,500VDC, Capacitance Tolerance ±10% 5Mmf through 1,500 Mmf; ±20% 1,800Mmf through 2,200Mmf; ±80%, —20% 2,500Mmf through 10,000Mmf. Av. Shpg. wt., 1 oz.

TYPE N 750 TUBULARS

±0.25% Cap. Tol.

Stk. No.	Mil. Type	Mmf.	Body Style	1-49	50-99	100-249	250-499	500-999
19F2153	CC20 UK 020C	2	301	.26	.20	.163	.117	.1105
19F2154	CC20 UJ 030C	3	301	.26	.20	.163	.117	.1105
19F2155	CC20 UJ 040C	4	301	.26	.20	.163	.117	.1105
19F2156	CC20 UJ 050C	5	301	.26	.20	.163	.117	.1105
19F2157	CC20 UJ 060C	6	301	.38	.28	.235	.1692	.1598
19F2158	CC20 UJ 070C	7	301	.38	.28	.235	.1692	.1598
19F2159	CC20 UJ 080C	8	301	.38	.28	.235	.1692	.1598
19F2160	CC20 UJ 090C	9	301	.38	.28	.235	.1692	.1598
19F2161	CC20 UJ 100C	10	301	.38	.28	.235	.1692	.1598

±5% Cap. Tol.

Stk. No.	Mil. Type	Mmf.	Body Style	1-49	50-99	100-249	250-499	500-999
19F2162	CC21 UJ 430J	43	315	.34	.26	.215	.1548	.1462
19F2163	CC21 UJ 470J	47	315	.34	.26	.215	.1548	.1462
19F2164	CC21 UJ 510J	51	315	.34	.26	.215	.1548	.1462
19F2165	CC21 UJ 560J	56	315	.34	.26	.215	.1548	.1462
19F2166	CC21 UJ 620J	62	315	.34	.26	.215	.1548	.1462
19F2167	CC26 UJ 680J	68	316	.34	.26	.215	.1548	.1462
19F2168	CC26 UJ 750J	75	316	.34	.26	.215	.1548	.1462
19F2169	CC26 UJ 820J	82	316	.34	.26	.215	.1548	.1462
19F2170	CC26 UJ 910J	91	316	.34	.26	.215	.1548	.1462
19F2171	CC26 UJ 101J	100	316	.34	.26	.215	.1548	.1462
19F2172	CC26 UJ 111J	110	316	.34	.26	.215	.1548	.1462
19F2173	CC26 UJ 121J	120	316	.34	.26	.215	.1548	.1462

TYPE N 330 TUBULARS

±0.25% Cap. Tol.

Stk. No.	Mil. Type	Mmf.	Body Style	1-49	50-99	100-249	250-499	500-999
19F2174	CC20 SK 010C	1	301	.26	.20	.163	.117	.1105
19F2175	CC20 SK 1R5C	1.5	301	.26	.20	.163	.117	.1105
19F2176	CC20 SK 020C	2	301	.26	.20	.163	.117	.1105
19F2177	CC20 SJ 030C	3	301	.26	.20	.163	.117	.1105
19F2178	CC20 SH 040C	4	301	.26	.20	.163	.117	.1105
19F2179	CC20 SH 050C	5	301	.26	.20	.163	.117	.1105
19F2180	CC20 SH 060C	6	301	.38	.28	.235	.1692	.1598
19F2181	CC20 SH 070C	7	301	.38	.28	.235	.1692	.1598
19F2182	CC20 SH 080C	8	301	.38	.28	.235	.1692	.1598
19F2183	CC20 SH 090C	9	301	.38	.28	.235	.1692	.1598
19F2184	CC20 SH 100C	10	301	.38	.28	.235	.1692	.1598

±5% Cap. Tol.

Stock No.	Mil. Type	Mmf.	Body Style	1-49	50-99	100-249	250-499	500-999
19F2185	CC21 SH 270J	27	315	.34	.26	.215	.1548	.1462
19F2186	CC21 SH 300J	30	315	.34	.26	.215	.1548	.1462
19F2187	CC21 SH 330J	33	315	.34	.26	.215	.1548	.1462
19F2188	CC21 SH 360J	36	315	.34	.26	.215	.1548	.1462
19F2189	CC21 SH 390J	39	315	.34	.26	.215	.1548	.1462
19F2190	CC26 SH 430J	43	316	.34	.26	.215	.1548	.1462
19F2191	CC26 SH 470J	47	316	.34	.26	.215	.1548	.1462
19F2192	CC26 SH 510J	51	316	.34	.26	.215	.1548	.1462
19F2193	CC26 SH 560J	56	316	.34	.26	.215	.1548	.1462
19F2194	CC26 SH 620J	62	316	.34	.26	.215	.1548	.1462

TYPE NPO TUBULARS

±0.25% Cap. Tol.

Stk. No.	Mil. Type	Mmf.	Style	1-49	50-99	100-249	250-499	500-999
19F2195	CC20 CK 0R5C	0.5	301	.26	.20	.163	.117	.1105
19F2196	CC20 CK R75C	0.75	301	.26	.20	.163	.117	.1105
19F2197	CC20 CK 1R5C	1.5	301	.26	.20	.163	.117	.1105
19F2198	CC20 CK 020C	2	301	.26	.20	.163	.117	.1105
19F2199	CC20 CJ 030C	3	301	.26	.20	.163	.117	.1105
19F2200	CC20 CH 040C	4	301	.26	.20	.163	.117	.1105
19F2201	CC20 CH 050C	5	301	.26	.20	.163	.117	.1105
19F2202	CC20 CH 060C	6	301	.38	.28	.235	.1692	.1598
19F2203	CC20 CH 070C	7	301	.38	.28	.235	.1692	.1598
19F2204	CC20 CH 080C	8	301	.38	.28	.235	.1692	.1598
19F2205	CC20 CH 090C	9	301	.38	.28	.235	.1692	.1598
19F2206	CC20 CH 100C	10	301	.38	.28	.235	.1692	.1598

±5% Cap. Tol.

Stk. No.	Mil. Type	Mmf.	Style	1-49	50-99	100-249	250-499	500-999
19F2207	CC21 CH 120J	12	315	.34	.26	.215	.1548	.1462
19F2208	CC21 CH 150J	15	315	.34	.26	.215	.1548	.1462
19F2209	CC21 CH 180J	18	315	.34	.26	.215	.1548	.1462
19F2210	CC21 CH 220J	22	315	.34	.26	.215	.1548	.1462
19F2211	CC21 CH 240J	24	315	.34	.26	.215	.1548	.1462
19F2212	CC26 CH 270J	27	316	.34	.26	.215	.1548	.1462
19F2213	CC26 CH 300J	30	316	.34	.26	.215	.1548	.1462
19F2214	CC26 CH 330J	33	316	.34	.26	.215	.1548	.1462
19F2215	CC26 CH 360J	36	316	.34	.26	.215	.1548	.1462
19F2216	CC26 CH 390J	39	316	.34	.26	.215	.1548	.1462
19F2217	CC26 CH 430J	43	316	.34	.26	.215	.1548	.1462
19F2218	CC26 CH 470J	47	316	.34	.26	.215	.1548	.1462

"GP" GENERAL PURPOSE CERAMICONS

Ideally suited for such applications as coupling and by-passing, in circuits where temperature coefficient is not important. Working Voltage—600 volts DC. Standard tolerance ±10% through 1500 Mmf. Size: Case 315, ½"x¼"; Case 316, 13⁄16"x¼".

Note: First three Nos. of Mfr. Type indicates size.

Stock No.	Mfr. Type	Mmf.	1-49	50-99	100-249	250-499	500-999
19F600	315 U2M 509D	5	.16	.12	.10	.074	.07
19F601	315 U2M 100F	10					
19F602	315 U2M 120K	12					
19F603	315 U2M 150K	15					
19F604	315 U2M 180K	18					
19F605	315 U2M 200K	20					
19F606	315 U2M 220K	22					
19F608	315 U2M 250K	25					
19F613	315 U2M 470K	47					
19F614	315 U2M 500K	50					
19F616	315 U2M 560K	56					
19F617	315 U2M 680K	68					
19F618	315 U2M 750K	75					
19F620	315 X5U 101K	100					
19F621	315 X5U 121K	120					

Stock No.	Mfr. Type	Mmf.	1-49	50-99	100-249	250-499	500-999
19F622	315 X5U 151K	150	.18	.13	.11	.08	.076
19F624	315 X5U 201K	200	.20	.15	.12	.089	.084
19F625	315 X5U 221K	220	.18	.13	.11	.08	.076
19F627	315 X5U 251K	250	.20	.15	.12	.089	.084
19F628	315 X5U 271K	270	.20	.15	.12	.089	.084
19F629	315 X5U 301K	300	.20	.15	.12	.089	.084
19F630	315 X5U 331K	330	.18	.13	.11	.08	.076
19F631	315 X5U 361K	360	.20	.15	.12	.089	.084
19F633	315 X5U 471K	470	.18	.13	.11	.08	.076
19F634	315 X5U 501K	500	.18	.13	.11	.08	.076
19F635	315 X5U 511K	510	.20	.15	.12	.089	.084
19F636	315 X5U 561K	560	.18	.13	.11	.08	.076
19F637	315 X5U 681K	680	.18	.13	.11	.08	.076
19F639	316 X5U 102K	1000	.19	.14	.12	.084	.079
19F641	316 X5U 152K	1500	.19	.14	.12	.084	.079

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4855

4815

SUBMINIATURE CERAMICONS

Ceramic capacitor is compact, moisture-proof and has an insulated body. This capacitor comes in a square shape which is the best available form factor to save expensive printed board space. All are 200 VDC working and have a ±20% capacitance tolerance. Dimensions for type 4855 are: .150 thick, body is .500 x .500. For type 4815: .100 thick, body is .150 x.150. Average shpg. wt., 1 oz.

Stk. No.	Type	Mmf.	1-49	50-99	100-249	250-499	500-999
19F2050	4815U2M479M	4.7	.33	.25	.209	.150	.142
19F2051	4815U2M689M	6.8					
19F2052	4815U2M100M	10					
19F2053	4815U2M150M	15					
19F2054	4815U2M220M	22					
19F2055	4815U2M330M	33					
19F2056	4815S3N470M	47					
19F2057	4815S3N680M	68					
19F2058	4815S3N101M	100					
19F2059	4815S3N151M	150					
19F2060	4815S3N221M	220					
19F2061	4815S3N331M	330					

Stk. No.	Type	Mmf.	1-49	50-99	100-249	250-499	500-999
19F2062	4815X5V471M	470	.33	.25	.209	.150	.142
19F2063	4815X5V681M	680					
19F2064	4815X5V102M	1000					
19F2065	4815X5V152M	1500					
19F2066	4815X5V222M	2200					
19F2067	4815X5V332M	3300					
19F2068	4855X5V472M	4700	.44	.33	.275	.198	.187
19F2069	4855X5V682M	6800					
19F2070	4855X5V103M	1000					
19F2071	4855X5V153M	1500					
19F2072	4855X5V223M	2200					
19F2073	4855X5V333M	3300					

HIGH CAPACITANCE MINIATURE CERAMICONS

High capacitance capacitors which may be used for transistor and other miniaturized circuitry because of their small size. Type 892 are .343 x .343, type 893 are .406 x .562 and type 896 are .562 x :750. Rectangular in shape for the most capacity in the smallest space.

896

893

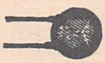
892

Stk. No.	Type	Mmf.	1-49	50-99	100-249	250-499	500-999
19F2074	892X5P222M	2200	1.76	1.32	1.10	.792	.748
19F2075	892X5P332M	3300	1.76	1.32	1.10	.792	.748
19F2076	892X5S472M	4700	1.76	1.32	1.10	.792	.748
19F2077	892X5P682M	6800	1.90	1.43	1.19	.855	.808
19F2078	893X5S103M	10000	1.90	1.43	1.19	.855	.808
19F2079	896X5P153M	15000	1.94	1.46	1.21	.873	.825

Stk. No.	Type	Mmf.	1-49	50-99	100-249	250-499	500-999
19F2080	896X5S223M	2200	1.94	1.46	1.21	.873	.825
19F2081	896X5S333M	3300	2.92	2.19	1.83	1.31	1.24
19F2082	896Z5U473Z	4700	1.94	1.46	1.21	.873	.825
19F2083	896Z5U683Z	6800	2.92	2.19	1.83	1.31	1.24
19F2084	896Z5U104Z	100000	2.92	2.19	1.83	1.31	1.24

TRANSCAP

A new ceramic capacitor which incorporates thin-film techniques. Combines ultra-high capacitance with small size at a working voltage of 25 VDC. May be used in almost all transistor circuits. Meets life test specifications of 150% of rated voltage at 85°C. for 1,000 hours. +80%, —20% capacitance tolerance. Flat plate construction permits higher self-resonant frequency.



Stk. No.	Type	Mmf.	Dia.	Thickness	Lead Spc.	1-49	50-99	100-249	250-499	500-999
19F2085	5835Y5U103Z	10000	.290	.156	.250	.20	.15	.125	.09	.085
19F2086	5835Y5U203Z	20000	.290	.156	.250	.24	.18	.15	.108	.102
19F2087	5855Y5U503Z	50000	.437	.156	.250	.30	.23	.189	.138	.128
19F2088	5815Y5U104Z	100000	.593	.156	.375	.32	.24	.20	.144	.136
19F2089	5815Y5U204Z	200000	.593	.200	.375	.62	.47	.388	.279	.264

CERAMIC TRIMACONS

These trimmers are stable under the most exacting conditions. The top of the base and the underside of the titanium dioxide rotor are lapped optically flat, thus eliminating air space variations with temperature changes. The fired silver electrodes are applied to the top of the base and the rotor so that capacity is changed by varying the amount of the overlap. Capacitance change per degree of rotation is approximately constant. This results in a smoothness of adjustment not passible with compression type trimmers. .300" h'gh x .375" wide in the body.

Stk. No.	Type	Mmf. Range	Temp. Coef.	1-49	50-99	100-249	250-499	500-999
19F2090	538-00089R	2-8	NP0	1.69	1.35	1.125	.675	.56
19F2091	538-00092R	5.5-18	NP0					
19F2092	538-00090R	2.5-11	N300					
19F2093	538-00093R	7-25	N300					
19F2094	538-00091R	3-10	N500					
19F2095	538-00099R	8-25	N500					
19F2096	538-000110R	3-15	N650					
19F2097	538-00094R	9-35	N650					

Stk. No.	Type	Mmf. Range	Temp. Coef.	1-49	50-99	100-249	250-499	500-999
19F2098	538-00289R	2-8	NP0	1.69	1.35	1.125	.675	.56
19F2099	538-00292R	5.5-18	NP0					
19F2100	538-00290R	2.5-11	N300					
19F2101	538-00293R	7-25	N300					
19F2102	538-00291R	3-10	N500					
19F2103	538-00299R	8-25	N500					
19F2104	538-002110R	3-15	N650					
19F2105	538-00294R	9-35	N650					

BUTTON-MICA CAPACITORS (Exceeds MIL-C-10950)

At 200°C, capacitor exceeds MIL specifications for life test and temperature cycling. All-welded, hermetic glass-sealed, gold-plated exterior parts. 500VDCW, —55°C to +200°C. Body dim.: type 2921-.490 dia.x.050 h, type 2922 .490x.060. Cap. tol. all ±10%.

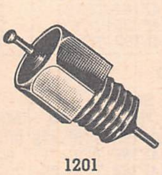
Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
19F2106	2921-600501K	500	3.73	3.11	2.49	1.87	1.37
19F2107	2921-600102K	1000	4.26	3.55	2.84	2.13	1.56
19F2108	2922-600501K	500	2.62	2.18	1.74	1.31	.96
19F2109	2922-600102K	1000	3.14	2.62	2.10	1.57	1.15

FILTERCONS

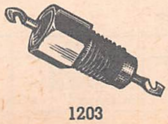
Designed to provide maximum effective filtering in the UHF range. Specifications for both units are: Capacitance, 1000 mmf. at 1 KC, .5 to 5 VRMS, 25°C, working voltage: 200VDC, operating temperature range: —55°C to +125°C. Insulation resistance: 10K megohms min. at 100VDC, 50ma max. charging current, 25°C. DC resistance 0.01 ohms max. DC and low frequency current 5 amperes max. RF current 0.25 amperes max.

Type 1201 is a bushing type. Lockwashers and hexnuts are supplied. Size: Overall L. .812x250 Dia.

Type 1203 is a miniaturized eyelet type. Size: Overall L. .718x.218 Dia.



1201



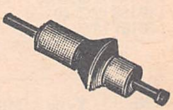
1203

Stk. No.	Type	1-49	50-99	100-249	250-499	500-999
19F2110	1201-052	2.76	2.42	2.24	2.07	1.89
19F2111	1203-050	1.28	1.12	1.04	.96	.66

Specification for both types are: Minimum attenuation 50db from 100 MC to 2000MC over a temperature range of —55°C to +125°C. Capacitance: 2000 mmf. min. at 1 KC, .5 to 5VRMS, 25°C. Working voltage: 500VDC. Insulation resistance: 10K megohms min. at 100VDC, 50ma charging current, 25°C. DC resistance: 0.10 ohms max. DC and low frequency current: 5 amperes max. RF current: 0.25 amperes max. 125°C.

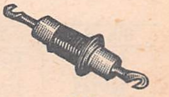
Type 1202. Same as Type 1201 but size is .999 L.x.375 Dia. Hex nuts and lockwashers are supplied.

Type 1204 is an eyelet type similar to type 1202. But size is: 1.187 L.x.328 Dia.



1202

Stk. No.	Type	1-49	50-99	100-249	250-499	500-999
19F2112	1202-052	1.47	1.29	1.20	1.10	1.01
19F2113	1204-050	.96	.84	.78	.72	.66



1204

ERIE

TANTALUM CAPACITORS

Erie Solid Tantalum Capacitors (Tantacons) are manufactured in accordance with the strict requirements of the latest military specification MIL-C-26655. Working volts, DC, is rated at +85°C. Nominal capacitance is measured at 25°C. Capacity tolerance of all Tantacons is ±10%. Dimensions of Military Cases: A— .25" (case length) x .131 " (case diameter); B— .438" x .181"; C— .650" x .285"; D— .750" x .347". Lead length: minimum 1.5". Weight: 5=1 oz.

6 WVDC @+85°C.

Stock No.	Mil. Type	Cap. @25°C (mf)	Mil. Case Size	1-24	25-49	50-99	100-499	500-999
58F900	CS13AB5R6K	5.6	A	1.74	1.43	1.24	.93	.85
58F901	CS13AB6R8K	6.8	A	1.74	1.43	1.24	.93	.85
58F902	CS13AB470K	47	B	1.90	1.56	1.35	1.01	.93
58F903	CS13AB560K	56	B	1.90	1.56	1.35	1.01	.93
58F904	CS13AB151K	150	C	3.21	2.64	2.28	1.71	1.57
58F905	CS13AB181K	180	C	3.21	2.64	2.28	1.71	1.57
58F906	CS13AB271K	270	D	6.13	5.04	4.36	3.27	3.00
58F907	CS13AB331K	330	D	6.13	5.04	4.36	3.27	3.00

10 WVDC @+85°C.

Stock No.	Mil. Type	Cap. @25°C (mf)	Mil. Case Size	1-24	25-49	50-99	100-499	500-999
58F908	CS13AC3R9K	3.9	A	1.74	1.43	1.24	.93	.85
58F909	CS13AC4R7K	4.7	A	1.74	1.43	1.24	.93	.85
58F910	CS13AC270K	27	B	1.90	1.56	1.35	1.01	.93
58F911	CS13AC330K	33	B	1.90	1.56	1.35	1.01	.93
58F912	CS13AC390K	39	B	1.90	1.56	1.35	1.01	.93
58F913	CS13AC820K	82	C	3.21	2.64	2.28	1.71	1.57
58F914	CS13AC101K	100	C	3.21	2.64	2.28	1.71	1.57
58F915	CS13AC121K	120	C	3.21	2.64	2.28	1.71	1.57
58F916	CS13AC181K	180	D	6.13	5.04	4.36	3.27	3.00
58F917	CS13AC221K	220	D	6.13	5.04	4.36	3.27	3.00

15 WVDC @+85°C.

Stock No.	Mil. Type	Cap. @25°C (mf)	Mil. Case Size	1-24	25-49	50-99	100-499	500-999
58F918	CS13AB2R7K	2.7	A	1.74	1.43	1.24	.93	.85
58F919	CS13AD3R3K	3.3	A	1.74	1.43	1.24	.93	.85
58F920	CS13AD560K	56	C	3.21	2.64	2.28	1.71	1.57
58F921	CS13AD680K	68	C	3.21	2.64	2.28	1.71	1.57
58F922	CS13AD121K	120	D	6.13	5.04	4.36	3.27	3.00
58F923	CS13AD151K	150	D	6.13	5.04	4.36	3.27	3.00

20 WVDC @+85°C.

Stock No.	Mil. Type	Cap. @25°C (mf)	Mil. Case Size	1-24	25-49	50-99	100-499	500-999
58F924	CS13AE1R2K	1.2	A	1.74	1.43	1.24	.93	.85
58F925	CS13AE1R5K	1.5	A	1.74	1.43	1.24	.93	.85
58F926	CS13AE1R8K	1.8	A	1.74	1.43	1.24	.93	.85
58F927	CS13AE2R2K	2.2	A	1.74	1.43	1.24	.93	.85
58F932	CS13AE8R2K	8.2	B	1.90	1.56	1.35	1.01	.93
58F933	CS13AE100K	10	B	1.90	1.56	1.35	1.01	.93

20 WVDC @+85°C. (Con't.)

Stock No.	Mil. Type	Cap. @25°C (mf)	Mil. Case Size	1-24	25-49	50-99	100-499	500-999
58F934	CS13AE120K	12	B	1.90	1.56	1.35	1.01	.93
58F935	CS13AE150K	15	B	1.90	1.56	1.35	1.01	.93
58F936	CS13AE270K	27	C	3.21	2.64	2.28	1.71	1.57
58F937	CS13AE330K	33	C	3.21	2.64	2.28	1.71	1.57
58F938	CS13AE390K	39	C	3.21	2.64	2.28	1.71	1.57
58F939	CS13AE470K	47	C	3.21	2.64	2.28	1.71	1.57
58F940	CS13AE560K	56	D	6.13	5.04	4.36	3.27	3.00
58F941	CS13AE680K	68	D	6.13	5.04	4.36	3.27	3.00
58F942	CS13AE820K	82	D	6.13	5.04	4.36	3.27	3.00
58F943	CS13AE101K	100	D	6.13	5.04	4.36	3.27	3.00

35 WVDC @+85°C.

Stock No.	Mil. Type	Cap. @25°C (mf)	Mil. Case Size	1-24	25-49	50-99	100-499	500-999
58F944	CS13AFR47K	.47	A	1.74	1.43	1.24	.93	.85
58F945	CS13AFR56K	.56	A	1.74	1.43	1.24	.93	.85
58F946	CS13AFR68K	.68	A	1.74	1.43	1.24	.93	.85
58F947	CS13AFR82K	.82	A	1.74	1.43	1.24	.93	.85
58F948	CS13AF010K	1.0	A	1.74	1.43	1.24	.93	.85
58F949	CS13AF1R2K	1.2	B	1.90	1.56	1.35	1.01	.93
58F950	CS13AF1R5K	1.5	B	1.90	1.56	1.35	1.01	.93
58F951	CS13AF1R8K	1.8	B	1.90	1.56	1.35	1.01	.93
58F952	CS13AF2R7K	2.7	B	1.90	1.56	1.35	1.01	.93
58F953	CS13AF3R3K	3.3	B	1.90	1.56	1.35	1.01	.93
58F928	CS13AF3R9K	3.9	B	1.90	1.56	1.35	1.01	.93
58F929	CS13AF4R7K	4.7	B	1.90	1.56	1.35	1.01	.93
58F930	CS13AF5R6K	5.6	B	1.90	1.56	1.35	1.01	.93
58F931	CS13AF6R8K	6.8	B	1.90	1.56	1.35	1.01	.93
58F954	CS13AF8R2K	8.2	C	3.21	2.64	2.28	1.71	1.57
58F955	CS13AF100K	10	C	3.21	2.64	2.28	1.71	1.57
58F956	CS13AF120K	12	C	3.21	2.64	2.28	1.71	1.57
58F957	CS13AF150K	15	C	3.21	2.64	2.28	1.71	1.57
58F958	CS13AF180K	18	C	3.21	2.64	2.28	1.71	1.57
58F959	CS13AF220K	22	C	3.21	2.64	2.28	1.71	1.57
58F960	CS13AF270K	27	D	6.13	5.04	4.36	3.27	3.00
58F961	CS13AF330K	33	D	6.13	5.04	4.36	3.27	3.00
58F962	CS13AF390K	39	D	6.13	5.04	4.36	3.27	3.00
58F963	CS13AF470K	47	D	6.13	5.04	4.36	3.27	3.00

MALLORY

METAL TUBULAR DRY ELECTROLYTIC CAPACITORS

TC is single-section cap. TCD is dual common neg. cap. Up to 150 WV, DC, cap. tolerance is —10% +100%. Above 150 WV, DC, cap. tolerance is —10% +50%. Rated 85°C. Except * 650°C. Av. Shipping Wt., 4 oz.

TYPE TC

Stk. No.	Type	Mfd.	WV DC	Size	1-9	10-24	25-49	50-99	100-249
14F150	TC-310	1000	3	15⁄16x1¾"	1.02	1.02	.82	.64	.510
14F151	TC-605	500	6	13⁄16x1¾"	.93	.93	.75	.59	.468
14F152	TC-610	1000	6	15⁄16x2"	1.14	1.14	.92	.71	.569
14F153	TC-1505	500	15	15⁄16x2"	1.05	1.05	1.10	.85	.527
14F443	TC-1501	1000	15	1 1⁄16x2¼"	1.38	1.38	1.10	.85	.683
14F154	TC-22	10	25	7⁄16x¾"	.60	.56	.42	.33	.261
14F155	TC-26	25	25	7⁄16x¾"	.60	.59	.44	.34	.273
14F156	TC-29	50	25	9⁄16x1½"	.66	.62	.47	.36	.291
14F157	TC-2501	100	25	11⁄16x1¾"	.81	.76	.57	.45	.356
14F158	TC-2505	500	25	1 1⁄16x2¼"	1.38	1.38	1.10	.85	.682
14F161	TC-31	1	50	¼x11⁄16"	.54	.52	.39	.30	.242
14F159	TC-302	2	50	5⁄16x¾"	.54	.52	.39	.30	.242
14F160	TC-30	5	50	5⁄16x⅞"	.60	.55	.41	.32	.256
14F162	TC-32	10	50	7⁄16x¾"	.60	.56	.42	.33	.261
14F163	TC-36	25	50	11⁄16x1¼"	.63	.59	.44	.34	.273
14F164	TC-39	50	50	13⁄16x1¼"	.72	.72	.54	.42	.336
14F165	TC3501	100	50	11⁄16x1¾"	.84	.79	.60	.46	.370
14F185	TC50025	250	50	15⁄16x1¾"	1.05	1.05	.85	.66	.529
14F166	TC-40	5	150	7⁄16x⅞"	.60	.57	.43	.33	.266
14F167	TC-41	8	150	7⁄16x1"	.63	.59	.44	.27	.276

Stk. No.	Type	Mfd.	WV DC	Size	1-9	10-24	25-49	50-99	100-249
14F168	TC-42	10	150	7⁄16x1¼"	.63	.61	.45	.35	.283
14F170	TC-45	20	150	13⁄16x1½"	.72	.70	.53	.41	.327
14F171	TC-47	30	150	13⁄16x1½"	.78	.77	.57	.45	.357
14F172	TC-48	40	150	15⁄16x1¾"	.81	.81	.61	.47	.376
14F173	TC-49	50	150	15⁄16x1¾"	.84	.83	.62	.48	.387
14F174	TC-492	80	150	15⁄16x2"	.96	.95	.71	.55	.442
14F198	TC-493	100	150	1 1⁄16x2¼"	1.05	1.03	.77	.60	.479
14F175	TC-495	150	150	1 1⁄16x2¼"	1.14	1.12	.84	.65	.522
14F024	TC-65	20	350	15⁄16x1¾"	.87	.87	.70	.55	.802
14F176	TC-70	5	450	1 1⁄16x1¾"	.72	.72	.56	.43	.346
14F177	TC-71	8	450	13⁄16x1¾"	.75	.75	.62	.48	.384
14F178	TC-72	10	450	13⁄16x1¾"	.78	.78	.64	.50	.400
14F179	TC-74	16	450	15⁄16x1¾"	.84	.84	.70	.55	.437
14F180	TC-75	20	450	1 1⁄16x1¾"	.93	.93	.75	.59	.468
14F181	TC-77	30	450	1 1⁄16x2¼"	1.02	1.02	.83	.64	.514
14F182	TC-78	40	450	1 1⁄16x2¼"	1.08	1.08	.86	.67	.532
14F183	TC-79	50	450	1 1⁄16x2¼"	1.26	1.26	1.00	.78	.622
14F184	TC-80	80	450	1 1⁄16x4"	1.68	1.68	1.42	1.10	.881
14F025	TC83*	20	500	1 1⁄16x1 ¾"	.96	.96	.77	.60	.480
14F190	TC-92	10	600	1 1⁄16x2⅞"	1.77	1.77	1.35	1.05	.842

TYPE TCD

Stk. No.	Type	Mfd.	WV DC	Size	1-9	10-24	25-49	50-99	100-1-9
14F191	TCD-45	20-20	150	13⁄16x1¾"	.990	.990	.990	.760	.608
14F192	TCD-48	40-40	150	1 1⁄16x2"	1.110	1.110	1.081	.841	.672
14F193	TCD-485	40-20	150	15⁄16x1¾"	1.050	1.050	1.028	.799	.639
14F194	TCD-49	50-50	150	1 1⁄16x2¼"	1.260	1.260	1.129	.878	.702
14F195	TCD-497	50-30	150	15⁄16x2"	1.170	1.170	1.071	.833	.666

Stk. No.	Type	Mfd.	WV DC	Size	1-9	10-24	25-49	50-99	100-249
14F196	TCD-498	80-50	150	1 1⁄16x2¼"	1.410	1.410	1.182	.919	.735
14F186	TCD-71	8-8	450	15⁄16x2"	1.020	1.020	1.020	.833	.666
14F188	TCD-75	20-20	450	1 1⁄16x3⅛"	1.500	1.500	1.390	1.081	.865
14F189	TCD-78	40-40	450	1 1⁄16x4"	2.040	2.040	1.866	1.451	1.161

TYPE TCT

Stk. No.	Type	Mfd.	WVDC	Description	Size	1-24	25-49	50-99	100-249
14F141	TCT-3114	40-20-20	150	Triple Section	1 1⁄16x2¼"	1.35	1.254	.975	.78
14F142	TCT-3115	40-40-40	150	Triple Section	1 1⁄16x2¼"	1.47	1.331	1.035	.828
14F143	TCT-3118	80-50-50	150	Triple Section	1 1⁄16x4"	1.86	1.474	1.146	.917

TYPE XT TANTALUM CAPACITORS
MIL-C-3965B/ND

Hermetically sealed steel case endures 100 hrs. of 20% salt spray at 95°F. Glass-to-metal end seal on case. All types operative from —55° to 200°C. Std. case diam.: 7/8". Height, from ½" to 4 1/16", depending on capacity and voltage. Provided with wrap-around terminals. XTH and XTL have solder term. at top. XTLS and XTHS have threaded neck mounting. *Supplied with negative lug.

XTH (Top Terminal-Case Negative)

No.	Type	Mfd.	DC V 175°C	Hgt. In.	1-24	25-49	50-99
14F627	XTH157U030POC	150	20	11/16	9.30	8.69	8.07
13F857	XTH127U035POC	120	23	11/16	9.30	8.69	8.07
14F629	XTH806U060POC	80	38	11/16	9.30	8.69	8.07
14F631	XTH506U090POC	50	60	11/16	9.30	8.69	8.07
14F633	XTH256U180POC	25	120	1¼	14.80	13.81	12.83
14F635	XTH166U270POC	16	180	1 13/16	20.48	19.12	17.76
14F637	XTH126U360POC	12	240	2⅜	26.06	24.33	22.59
14F639	XTH106U450POA	10	300	2 15/16	31.50	29.40	27.30
13F858	XTH806U060POB*	80	38	11/16	9.30	8.69	8.07
13F859	XTH506U090POB*	50	60	11/16	9.30	8.69	8.07

XTL (Postive Top Terminal-Case Negative with Lug)

No.	Type	Mfd.	DC V 175°C	Hgt. In.	1-24	25-49	50-99
13F866	XTL127U018POC	12	13	½	8.24	7.69	7.15
14F626	XTL756U030POC	75	20	½	8.24	7.69	7.15
14F628	XTL406U060POC	40	38	½	8.24	7.69	7.15
14F630	XTL256U090POC	25	60	½	8.24	7.69	7.15
14F632	XTL126U180POC	12	120	27/32	12.38	11.56	10.64
14F634	XTL805U270POC	8	180	1 3/16	16.70	15.59	14.48
14F636	XTL605U360POC	6	240	1 17/32	21.16	19.75	18.34
14F640	XTL405U540POC	4	360	2¼	29.89	27.90	25.91
14F642	XTL355U630POC	3.5	420	2 19/32	34.30	32.01	29.73
14F510	XTL406U060POB*	30	38	½	8.24	7.69	7.15

XTHS (Pos. Thrded Feed-thru Term.-Case Neg.-with Lug)

No.	Type	Mfd.	DC V 175°C	Hgt. In.	1-24	25-49	50-99
14F506	XTH126U360POL	12	240	3 1/16	26.41	24.68	22.94
13F867	XTH166U270POL	16	200	1 13/16	20.83	19.47	18.11
13F862	XTH256U180POL	25	120	1¼	15.15	14.16	13.18
13F863	XTH806U060POL	80	38	11/16	9.65	9.04	8.42
13F864	XTH157U030POL	150	20	11/16	9.65	9.04	8.42
14F507	XTH247U018POL	240	12	11/16	9.65	9.04	8.42

XTLS (As above, except †, No Lug)

No.	Type	Mfd.	DC V 175°C	Hgt. In.	1-24	25-49	50-99
14F511	XTL605U360POL	6	240	1 19/32	21.50	20.10	18.69
13F865	XTL805U270POK†	8	180	1 3/16	17.00	15.89	14.78
14F512	XTL126U180POL	12	120	½	12.73	11.91	11.09
14F513	XTL406U060POL	40	38	27/32	8.59	8.04	7.50
13F868	XTL756U030POL	75	22	½	8.59	8.04	7.50

SUBMINIATURE TANTALUM CAPACITORS

Largest capacity per-unit-volume available! 0.006 cu. in. but usable in both military and commercial aircraft control and communications. Also for hearing aids, printed circuits, etc. Oper. temp.: —55 to +85°C. Takes 83-2000 cps at 20 g's without internal damage. Double-case silver cases; withstands 40-hr. salt spray test. Leads withstand 5-sec., 3-lb. axial pull. Sizes: (†) dia. .165", Lgth. .350"; (*) dia. .165", Lgth. .500". Tolerance: —15% to +75%.

Stock No.	Type	Mfd.	VDC	1-24	25-49	50-99	100-499	500-999
14F449	TNT806U003POB*	80	3	1.46	1.17	.99	.84	.766
14F448	TNT506U006POB*	50	6					
13F869	TNT356U012POB	35	12					
14F447	TNT256U015POB*	25	15					
14F446	TNT156U030POB*	15	30					
13F870	TNT126U035POB*	12	35					
14F445	TNT805U050POB*	8	50					

Stock No.	Type	Mfd.	VDC	1-24	25-49	50-99	100-499	500-999
14F494	TNT406U003POA†	40	3	1.24	.99	.84	.714	.651
14F495	TNT256U006POA†	25	6					
14F496	TNT126U015POA†	12	15					
14F497	TNT605U035POA†	6	35					
14F498	TNT405U050POA†	4	50					
14F499	TNT205U050POA†	2	50					

MINIATURE TYPE TANTALUM CAPACITORS

Miniaturized versions of XT above. Outstanding in both military and commercial uses! Extra rugged. Operative —55°C to +175°C. Excellent low-temp. characteristics. New "axial lead construction" of solderable heavy wire bonded to term. stops lead connection breakage. High voltages in single small case avoid interconnecting separate units. Double sealed corrosion-resistant case. True metal-to-glass hermetic seal. Long shelf and operating life. 0.65" diam.

Stock No.	Type	Mfd.	DC V 175°C	Hgt. In.	1-24	25-49	50-99
14F392	XTM406T035POA	40	23	9/16	6.56	6.12	5.68
14F393	XTM256T060POA	25	38	9/16	6.56	6.12	5.68
14F394	XTM166T090POA	16	60	9/16	6.56	6.12	5.68
14F395	XTM805T170POA	8	120	15/16	9.90	9.24	8.56
14F396	XTM505T255POA	5	180	1⅜	12.96	12.10	11.23
14F397	XTM405T340POA	4	240	1 25/32	16.20	15.12	14.04

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TYPE TAP TANTALUM CAPACITORS

Possess extremely long operational life, double seal construction, and excellent low temperature characteristics. Operating temp. ranges from —55°C. to +85°C. DC leakage is less than 1 microamp. after 10 min. of rated voltage. Capacity tol. is —15% to +75%. Terminals—Axial leads 1½" long, tinned for easy soldering. Sizes: (*) Length .238", dia. .500"; (†) Length .238", dia. .660".

Stock No.	Type	Cap. Mfd.	VDC	1-24	25-49	50-99	100-499	500-999
14F432	TAP205U090POA*	2	90	1.46	1.17	.99	.84	.766
14F434	TAP405U060POA*	4	60					
14F435	TAP505U050POA*	5	50					
14F436	TAP605U040POA*	6	40					
13F871	TAP705U035POA*	7	35					
14F437	TAP805U030POA*	8	30					
14F438	TAP106U025POA*	10	25					
14F441	TAP206U010POA*	20	10					
14F442	TAP306U006POA*	30	6					
14F083	TAP116U090POB†	11	90	2.46	1.97	1.66	1.415	1.29
14F085	TAP206U060POB†	20	60					
14F086	TAP256U050POB†	25	50					
14F087	TAP306U040POB†	30	40					
14F088	TAP406U030POB†	40	30					
14F089	TAP706U015POB†	70	15					
14F090	TAP107U010POB†	100	10					
14F091	TAP147U006POB†	140	6					

TANTALUM CAPACITORS TYPE TAM

Plastic encapsulated, solid electrolyte, sintered tantalum pellet anode. Temperature range: —80° to +85°C or 125° if derated. 33⅓%. Ht. .3125", Dia. .175".

Stock No.	Type	Mfd.	WV	1-24	25-49	50-99	100-499	500-999
14F126	TAM685M025P5C	6.8	25	1.20	.96	.82	.69	.63
14F127	TAM106M025P5C	10	25					
14F128	TAM156M025P5C	15	25					
14F129	TAM226M015P5C	22	15					
14F145	TAM336M010P5C	33	10					
14F146	TAM396M010P5C	39	10					
14F147	TAM566M006P5C	56	6					

CAPACITORS

TANTALUM CAPACITORS TYPE TAS

Sintered tantalum pellet anode and a solid electrolyte. Corrosion resistant sealed metal case. Temp. range: —80° to +85°C or 125°C if derated 33⅓%. 1½" leads.

Stock No.	Type TAS	Mfd.	WV.	Ht.	Dia.	1-24	25-49	50-99	100-499	500-999
13F955	474M006POA	.47	6	.250	.125	1.43	1.15	.98	.73	.69
13F960	684M006POA	.68	6	.250	.125	1.43	1.15	.98	.73	.69
13F965	105M006POA	1	6	.250	.125	1.43	1.15	.98	.73	.69
13F970	155M006POA	1.5	6	.250	.125	1.43	1.15	.98	.73	.69
13F975	225M006POA	2.2	6	.250	.125	1.43	1.15	.98	.73	.69
13F985	475M006POA	4.7	6	.250	.125	1.43	1.15	.98	.73	.69
13F989	685M006POA	6.8	6	.250	.125	1.43	1.15	.98	.73	.69
14F371	156M006POC	15	6	.438	.175	1.52	1.22	1.03	.75	.71
14F372	226M006POC	22	6	.438	.175	1.52	1.22	1.03	.75	.71
14F374	476M006POC	47	6	.438	.175	1.52	1.22	1.03	.75	.71
14F375	686M006POF	68	6	.650	.279	2.50	2.00	1.69	1.24	1.19
14F093	107M006POF	100	6	.650	.279	2.50	2.00	1.69	1.24	1.19
14F117	337M006POG	330	6	.750	.341	4.64	3.72	3.14	2.45	2.34
13F981	335M010POA	3.3	10	.250	.125	1.43	1.15	.98	.73	.69
14F377	106M010POC	10	10	.438	.175	1.52	1.22	1.03	.75	.71
14F380	336M010POC	33	10	.438	.175	1.52	1.22	1.03	.75	.71
14F381	476M010POF	47	10	.650	.279	2.50	2.00	1.69	1.24	1.19
13F872	686M010POF	68	10	.650	.279	2.50	2.00	1.69	1.24	1.19
14F094	107M010POF	100	10	.650	.279	2.50	2.00	1.69	1.24	1.19
14F116	227M010POG	220	10	.750	.341	4.64	3.72	3.14	2.45	2.34
13F957	474M015POA	.47	15	.250	.125	1.43	1.15	.98	.73	.69
13F962	684M015POA	.68	15	.250	.125	1.43	1.15	.98	.73	.69
13F977	225M015POA	2.2	15	.250	.125	1.43	1.15	.98	.73	.69
14F382	475M015POC	4.7	15	.325	.175	1.52	1.22	1.03	.75	.71
14F384	106M015POC	10	15	.438	.175	1.52	1.22	1.03	.75	.71

Stock No.	Type TAS	Mfd.	WV.	Ht.	Dia.	1-24	25-49	50-99	100-499	500-999
14F386	226M015POC	22	15	.438	.175	1.52	1.22	1.03	.75	.71
13F997	336M015POF	33	15	.650	.279	2.50	2.00	1.69	1.24	1.19
13F879	476M015POF	47	15	.650	.279	2.50	2.00	1.69	1.24	1.19
13F880	686M015POF	68	15	.650	.279	2.50	2.00	1.69	1.24	1.19
14F095	107M015POG	100	15	.750	.341	4.64	3.72	3.14	2.45	2.34
14F099	157M015POG	150	15	.750	.341	4.64	3.72	3.14	2.45	2.34
13F881	476M020POF	47	20	.650	.279	2.50	2.00	1.69	1.24	1.19
13F882	686M020POG	68	20	.750	.341	4.64	3.72	3.14	2.45	2.34
13F883	107M020POG	100	20	.750	.341	4.64	3.72	3.14	2.45	2.34
13F994	226M025POF	22	25	.650	.279	2.50	2.00	1.69	1.24	1.19
13F954	334M035POA	.33	35	.250	.125	1.43	1.15	.98	.73	.69
13F959	474M035POA	.47	35	.250	.125	1.43	1.15	.98	.73	.69
13F964	684M035POA	.68	35	.250	.125	1.43	1.15	.98	.73	.69
13F969	105M035POA	1	35	.250	.125	1.43	1.15	.98	.73	.69
13F974	155M035POC	1.5	35	.250	.125	1.52	1.22	1.03	.75	.71
13F979	225M035POC	2.2	35	.175	.325	1.52	1.22	1.03	.75	.71
13F984	335M035POC	3.3	35	.325	.175	1.52	1.22	1.03	.75	.71
13F988	475M035POC	4.7	35	.325	.175	1.52	1.22	1.03	.75	.71
13F991	685M035POC	6.8	35	.438	.175	1.52	1.22	1.03	.75	.71
13F992	106M035POF	10	35	.650	.279	2.50	2.00	1.69	1.24	1.19
13F993	156M035POF	15	35	.650	.279	2.50	2.00	1.69	1.24	1.19
13F995	226M035POF	22	35	.650	.279	2.50	2.00	1.69	1.24	1.19
13F998	336M035POG	33	35	.650	.279	4.64	3.72	3.14	2.45	2.34
13F999	476M035POG	47	35	.750	.341	4.64	3.72	3.14	2.45	2.34
14F092	686M035POG	68	35	.750	.341	4.64	3.72	3.14	2.45	2.34

TINY TUBULAR ALUMINUM ELECTROLYTIC CAPACITORS TYPE TT

Etched aluminum plate. Conforms with EIA RS-154A. Temp. range —20° to +85°C. Tol.: 0-50 WV —10% to +150%; 51-350 WV —10% to +100%.

Stock No.	Type	Mfd.	WV	Size	1-9	10-24	25-49	50-99	100-249
13F895	TT2X150	150	2	25/64x1 3/16	.90	.807	.605	.470	.376
13F896	TT3X10	10	3	7/32x9/16	.75	.672	.504	.392	.313
13F899	TT3X110	110	3	25/64x1 3/16	.84	.807	.605	.470	.376
14F398	TT3X200	200	3	25/64x1 3/16	.90	.807	.605	.470	.376
14F399	TT6X2	2	6	7/32x9/16	.75	.672	.504	.392	.313
14F515	TT6X4	4	6	7/32x9/16	.75	.672	.504	.392	.313
14F516	TT6X5	5	6	7/32x9/16	.81	.672	.504	.392	.313
14F363	TT6X10	10	6	7/32x1 1/16	.81	.672	.504	.392	.313
14F365	TT6X25	25	6	9/32x1 1/16	.84	.708	.531	.413	.330
14F367	TT6X40	40	6	25/64x1 1/16	.84	.738	.553	.430	.344
14F368	TT6X50	50	6	25/64x1 1/16	.84	.738	.553	.430	.344
13F912	TT10X15	15	10	9/32x1 1/16	.81	.708	.531	.413	.330
13F913	TT10X25	25	10	25/64x1 1/16	.81	.738	.553	.430	.344
13F914	TT10X50	50	10	25/64x1 3/16	.90	.807	.605	.470	.376
13F915	TT10X60	60	10	25/64x1 3/16	.90	.807	.605	.470	.376
13F916	TT12X1	1	12	7/32x9/16	.75	.672	.504	.392	.313
13F917	TT12X2	2	12	7/32x9/16	.75	.672	.504	.392	.313
13F918	TT12X3	3	12	9/32x5/8	.75	.672	.504	.392	.313
13F919	TT12X5	5	12	7/32x1 1/16	.81	.672	.504	.392	.313
13F920	TT12X10	10	12	9/32x1 1/16	.81	.708	.531	.413	.330
13F921	TT15X10	10	15	9/32x1 1/16	.84	.708	.531	.413	.330

Stock No.	Type TT-	Mfd.	WV	Size	1-9	10-24	24-49	50-99	100-249
13F922	15X20	20	15	25/64x1 1/16	.87	.708	.531	.413	.330
13F923	15X30	30	15	25/64x11/16	.900	.738	.553	.430	.344
13F925	15X50	50	15	25/64x1 3/16	.960	.807	.605	.470	.376
13F926	15X100	100	15	25/64x1 3/16	1.05	.807	.605	.470	.376
13F927	25X5	5	25	9/32x1 1/16	.84	.708	.531	.413	.330
13F928	25X6	6	25	9/32x1 1/16	.84	.708	.531	.413	.330
13F929	25X8	8	25	25/64x1 1/16	.87	.708	.531	.413	.330
13F930	25X15	15	25	25/64x1 1/16	.87	.738	.553	.430	.344
13F931	25X20	20	25	25/64x1 1/16	.90	.738	.553	.430	.344
13F932	25X25	25	25	25/64x1 1/16	.93	.807	.605	.471	.377
13F873	50X5	5	50	25/64x11/16	.87	.798	.599	.466	.372
13F934	50X10	10	50	25/64x1 1/16	.90	.807	.605	.471	.377
13F935	50X20	20	50	25/64x1 3/16	.90	.813	.610	.474	.379
13F936	50X35	35	50	25/64x1 3/16	1.02	.855	.641	.499	.399
13F939	150X2	2	150	9/32x1 3/16	.87	.831	.623	.485	.388
13F941	150X4	4	150	25/64x1 1/16	.87	.831	.623	.485	.388
13F942	150X5	5	150	25/64x1 3/16	.93	.831	.623	.485	.388
13F944	150X10	10	150	25/64x1 3/16	.96	.843	.632	.492	.393
13F945	150X12	12	150	25/64x1 3/16	.96	.861	.646	.502	.402
13F946	250X1	1	250	25/64x1 1/16	1.02	.840	.630	.490	.392
13F947	350X2	2	350	25/64x1 7/16	1.05	.930	.698	.543	.434

GENERAL PURPOSE MOLDED TUBULAR CAPACITORS TYPE GEM

Molded in cases from high grade mineral filled bakelite. Temp. Range: —40° to +85° C.

Stock No.	Type GEM-	Mfd.	WV	Size	1-24	25-49	50-99	100-up
14F300	421	.001	400	5/16x1	.150	.110	.085	.070
13F874	4147	.047	400	7/16x1¼	.180	.135	.095	.090
14F301	425	.005	400	5/16x1	.150	.110	.085	.070
14F302	411	.01	400	5/16x1	.150	.110	.085	.070
14F304	412	.02	400	3/8x1¼	.150	.110	.085	.080
13F875	4122	.022	400	3/8x1¼	.180	.135	.085	.080
14F309	414	.04	400	7/16x1¼	.180	.135	.095	.090
14F311	415	.05	400	7/16x1¼	.180	.135	.100	.090
14F314	401	.1	400	½x1½	.210	.160	.115	.100
14F318	4025	.25	400	¾x2¼	.270	.200	.175	.140
14F322	41	1.0	400	1x2⅜	.750	.560	.540	.485
14F323	621	.001	600	5/16x1	.150	.110	.085	.070
14F326	6222	.0022	600	5/16x1	.150	.110	.085	.070

Stock No.	Type GEM-	Mfd.	WV	Size	1-24	25-49	50-99	100-up
13F876	623	.003	600	5/16x1	.150	.110	.085	.070
14F331	6247	.0047	600	5/16x1	.150	.110	.085	.070
14F338	611	.01	600	3/8x1¼	.180	.140	.095	.080
13F877	6115	.015	600	3/8x1¼	.180	.140	.095	.080
14F341	612	.02	600	7/16x1¼	.180	.140	.095	.080
13F878	613	.03	600	7/16x1¼	.210	.160	.105	.090
14F346	614	.04	600	½x1½	.210	.160	.115	.100
14F348	615	.05	600	½x1½	.240	.180	.125	.110
14F352	601	.1	600	⅝x1⅞	.270	.200	.155	.130
14F355	6022	.22	600	¾x2¼	.420	.315	.290	.240
14F356	6025	.25	600	¾x2¼	.420	.315	.300	.280
14F360	605	.5	600	1x2⅜	.480	.360	.350	.320
14F362	61	1.0	600	1x2⅝	.750	.560	.540	.495

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CAPACITORS

P.R. MALLORY & CO. Inc. MALLORY

PVC MYLAR CAPACITORS

MALLORY
.25 MFD 600 VDC
PVC-6025

Constructed of aluminum foil and 100% DuPont Mylar. Has radial leads for adaptability to printed circuit applications. Encapsulated in moisture-proof, flexible polyvinyl chloride allowing leads to be bent in any manner to accommodate mounting without danger of cracking. Unaffected by soldering iron heat. Can be operated at 105°C and at two times rated voltage with no performance derating. Exceptionally low capacitance drift characteristics. Temp. range: —40°C to +105°C. Tolerance ±10%. Shpg. wt., 2 oz.

200 VWDC

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-up
13F790	PVC-211	.01	3/16x3/8x23/32	.24	.18	.13	.105
13F791	PVC-2115	.015	3/16x3/8x23/32				
13F792	PVC-212	.02	3/16x3/8x23/32				
13F793	PVC-2133	.033	7/32x27/64x27/32				
13F794	PVC-214	.04	7/32x27/64x27/32				
13F795	PVC-215	.05	1/4x7/16x27/32	.24	.18	.14	.11
13F796	PVC-2168	.068	17/64x15/32x31/32	.27	.20	.14	.11
13F797	PVC-201	.10	9/32x31/64x1 3/32	.27	.20	.145	.115
13F798	PVC-2015	.15	21/64x17/32x1 7/32	.30	.22	.16	.13

400 WVDC

Stock No.	Type	MFD	Size	1-24	25-49	50-99	100-up
13F799	PVC-4222	.0022	11/64x23/64x23/32	.21	.15	.13	.100
13F884	PVC-423	.003	3/16x3/8x23/32				
13F885	PVC-424	.004	3/16x3/8x23/32				
13F886	PVC-4256	.0056	3/16x3/8x23/32				
13F887	PVC-4268	.0068	3/16x3/8x23/32				
13F888	PVC-411	.01	3/16x3/8x23/32				
13F889	PVC-4115	.015	13/64x25/64x27/32				
13F890	PVC-412	.02	7/32x27/64x27/32	.21	.15	.13	.105
13F891	PVC-4133	.033	1/4x7/16x31/32	.24	.18	.14	.110
13F892	PVC-414	.04	17/64x15/32x31/32	.27	.20	.14	.110
13F893	PVC-415	.05	5/16x1/2x31/32	.27	.20	.15	.120
13F700	PVC-4168	.068	21/64x17/32x1 3/32	.27	.20	.16	.125
13F701	PVC-401	.10	11/32x35/64x1 7/32	.30	.22	.17	.135
13F702	PVC-4015	.15	25/64x19/32x1 11/32	.36	.27	.20	.155
13F703	PVC-4025	.25	7/16x21/32x1 9/32	.45	.34	.25	.200
13F704	PVC-4033	.33	31/64x45/64x1 23/32	.51	.38	.30	.240
13F705	PVC-404	.40	17/32x3/4x23/32	.57	.43	.34	.270
13F706	PVC-405	.5	17/32x3/4x1 23/32	.69	.52	.38	.300
13F707	PVC-4068	.68	45/64x15/16x1 23/32	.90	.68	.49	.390

MALLORY HC CAPACITORS

Plastic case electrolytics for high-capacity, low-voltage applications such as dry disc rectifier filters, movie equipment, etc. All are polarized. Two screw terminals. 10 oz.

Stk. No.	Type	Mfd.	WV	Size	1-9	10-24	25-49	50-99	100-249
14F100	HC1020A	2000	10	1 7/16x2 3/4	3.36	2.88	1.68	1.30	1.15
14F101	HC1040A	4000	10	1 7/16x3 3/8	4.60	3.95	2.30	1.78	1.58
14F102	HC1060A	6000	10	1 1/2x4 1/8	5.20	4.46	2.60	2.00	1.78
14F197	HC10100	10000	10	2 1/16x4 3/8	7.81	6.69	3.90	3.01	2.68
14F103	HC1520A	2000	15	1 7/16x2 3/4	3.47	2.97	1.73	1.34	1.19
14F104	HC1540A	4000	15	1 7/16x4 3/8	5.37	4.61	2.69	2.07	1.84
14F105	HC1560A	6000	15	1 13/16x3 3/8	5.62	4.82	2.81	2.17	1.93
14F294	HC2060	6000	20	2 1/16x4 3/8	6.11	5.24	3.05	2.36	2.09
14F295	HC2060A	6000	20	1 13/16x4 3/8	6.11	5.24	3.05	2.36	2.09
14F106	HC2510A	1000	25	1 7/16x2 3/4	3.19	2.73	1.59	1.23	1.09
14F107	HC2520A	2000	25	1 7/16x3 3/8	4.15	3.56	2.07	1.60	1.42
14F108	HC2540A	4000	25	1 13/16x3 3/8	5.58	4.79	2.79	2.15	1.91

Stk. No.	Type	Mfd.	WV	Size	1-9	10-24	25-49	50-99	100-249
14F296	HC4040	4000	40	2 1/16x4 3/8	6.98	5.99	3.49	2.69	2.39
14F297	HC4040A	4000	40	1 13/16x4 3/8	6.98	5.99	3.49	2.69	2.39
14F298	HC5040	4000	50	2 1/16x4 3/8	7.32	6.27	3.66	2.82	2.51
14F109	HC5005A	500	50	1 7/16x2 3/4	3.33	2.85	1.66	1.28	1.14
14F110	HC5010A	1000	50	1 7/16x3 3/8	4.25	3.65	2.13	1.64	1.46
14F111	HC5020A	2000	50	1 13/16x3 3/8	5.06	4.34	2.53	1.95	1.73
14F997	HC15010	1000	150	2 1/16x4 3/8	6.44	5.52	3.22	2.48	2.21
14F112	HC15010A	1000	150	1 13/16x4 3/8	6.44	5.52	3.22	2.48	2.21
14F113	HC20005A	500	200	1 13/16x3 3/8	5.53	4.74	2.77	2.13	1.90
14F114	HC45003	300	450	2 1/16x4 3/8	8.47	7.26	4.24	3.27	2.90

TYPE NP NON-POLARIZED HIGH CAP ELECTROLYTICS

Stk. No.	Type	Mfd.	WV	Size	1-9	10-24	25-49	50-99	100-249
14F135	NP1225A	200	125	1 7/16x3 3/8	4.04	3.47	2.02	1.56	1.39
14F137	NP1235A	300	125	1 13/16x3 3/8	4.87	4.17	2.43	1.88	1.67
14F136	NP1255A	500	125	1 13/16x4 3/8	6.30	5.40	3.15	2.43	2.16
14F138	NP3003A	15	300	1 7/16x2 3/4	2.87	2.46	1.44	1.11	.98
14F134	NP3025	200	300	2 1/16x4 3/8	7.00	6.00	3.50	2.70	2.40
14F131	NP4505	50	450	1 13/16x3 3/8	6.30	5.40	3.15	2.43	2.16
14F132	NP4510	100	450	2 1/16x4 3/8	7.70	6.60	3.85	2.97	2.64

●*NEW* COMPUTER GRADE ELECTROLYTIC CAPACITORS

- **Ten years minimum life when operated at 65° maximum ambient temperature.**
- **Pressure sensitive safety vent construction.**
- **May be operated —65 to +85°C where operation at over 65°C is less than 15% of operating time.**
- **Many other ratings available on special order.**

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Computer grade capacitors for high reliability applications. Max. DC leakage current is .01 square root of CV, where C=measured capacity, V=rated DC voltage. Dissipation factor =ESR/Xc. Tolerance: —10, +75% for 3-150 volt units; —10, +50% for 151-450 volt units. Supplied with Mylar insulating sleeve and 7/32" long post terminals with 10-32 screws. Sizes do not include terminals or sleeve. Available without sleeve; with acetate sleeve; with lug terminals; and in special capacities, working voltages, and sizes on special order.

Stk. No.	Type	mfd	WVDC	DxL in.	ESR* Ohms	1-49	50-99
26F409	CG41T450D1	240	450	2x4 1/8	1.1	3.11	2.77
26F410	CG3250T400D1	325	400	2x4 1/8	.78	3.24	2.88
26F411	CG551T350D1	550	350	2x4 1/8	.46	4.31	3.83
26F412	CG72T300D1	700	300	2x4 1/8	.36	4.06	3.61
26F413	CG82T250D1	800	250	2x4 1/8	.31	4.05	3.60
26F414	CG13T200D1	1000	200	2x4 1/8	.25	3.87	3.44
26F415	CG132T350D1	1300	350	3x4 1/8	.20	6.98	6.20

Stk. No.	Type	mfd	WVDC	DxL in.	ESR* Ohms	1-49	50-99
26F416	CG1551U150D1	1550	150	2x4 1/8	.24	3.48	3.09
26F417	CG1651T300F1	1650	300	3x4 1/8	.19	7.17	6.37
26F418	CG192T250F1	1900	250	3x4 1/8	.16	6.49	5.77
26F419	CG2251U100D1	2250	100	2x4 1/8	.19	3.50	3.11
26F420	CG2451T200F1	2450	200	3x4 1/8	.13	5.83	5.18
26F421	CG3451U75D1	3450	75	2x4 1/8	.16	3.45	3.07
26F422	CG362U150F1	3600	150	2x4 1/8	.15	6.02	5.35
26F423	CG452U50D1	4500	50	2x4 1/8	.16	2.97	2.64
26F424	CG532U100F1	5300	100	3x4 1/8	.16	5.91	5.26
26F425	CG822U75F1	8200	75	3x4 1/8	.14	6.40	5.69
26F426	CG852U25D1	8500	25	2x4 1/8	.071	3.34	2.97
26F427	CG14U50F1	10000	50	3x4 1/8	.11	5.74	5.10
26F428	CG143U15D1	14000	15	2x4 1/8	.064	3.70	3.29
26F429	CG183U10D1	18000	10	2x4 1/8	.064	3.65	3.24
26F430	CG24U25F1	20000	25	3x4 1/8	.060	5.60	4.98
26F431	CG2752U5D1	27500	5	2x4 1/8	.050	3.69	3.28
26F432	CG343U15F1	34000	15	3x4 1/8	.044	5.99	5.32
26F433	CG363U3D1	36000	3	2x4 1/8	.050	3.79	3.37
26F434	CG4352U10F1	43000	10	3x4 1/8	.052	6.89	6.12
26F435	CG653U5F1	65000	5	3x4 1/8	.050	5.99	5.33
26F436	CG753U3F1	75000	3	3x4 1/8	.050	6.05	5.38

ACE TYPE CAPACITORS (SINGLE ENDED)

Designed primarily for replacement use in automation and printed circuit radio and TV chassis applications. Units are rated 600 volts except (*) 400 v. Wire leads are of the proper dia., length and spacing to fit automation and printed circuit chassis. Wire leads are double tinned "copperweld" construction number 20 gauge wire used with case sized up to and including 1/2". Units larger than 1/2" are supplied with 18-gauge wire. Shpg. wt., 2 oz.

No.	Type	Cap. Mfd.	Size Dia.xLg.	NET
14F485	ACE401*	.1	5/8x1 1/4	.27
14F486	ACE621	.001	3/8x1	.18
14F487	ACE6247	.0047	3/8x1	.18
14F488	ACE611	.01	3/8x1 3/8	.21
14F489	ACE612	.02	7/16x1 3/8	.24
14F490	ACE6147	.047	1/2x1 1/2	.27
14F491	ACE615	.05	1/2x1 1/2	.27
14F492	ACE601	.1	1/2x1 7/8	.33
14F493	ACE6022	.22	3/4x1 7/8	.42

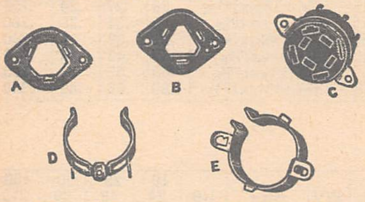
P.R. MALLORY & CO. Inc
MALLORY

ELECTROLYTIC CAPACITORS

FP AND WP CAPACITORS

Vertical mounting dry electrolytics for all filter and audio by-pass circuits, and TV applications. FP types have Mallory Fabricated Plates—anodes of metallized cotton gauge. WP types have etched plate anodes. All hermetically sealed in aluminum cases. Can is negative; separate positive terminals provided for each section. With mounting washers. Shipping weight, 6 oz. →

HARDWARE FOR MALLORY CAPACITORS



For FP or WP types, use MP, BP, PS and MW-100 units; for all upright tubulars, use VR brackets or TH Spring clips. BP-4A is for mounting 1'' FP's in chassis punches for 1⅜'' wafer. *Metal. †Phenolic. Average weight, 3 ounces.

No.	Type	Fig.	Size	NET
14F400	MP2	A*	¾	3c
14F401	MP4	A*	1	
14F402	MP6	A*	1⅜	
14F403	BP2	B†	¾	
14F404	BP4	B†	1	
14F405	BP4A	B†	1	
14F406	BP6	B†	1⅜	
14F407	PS4	C	1	41c
14F408	PS6	C	1⅜	53c
14F409	VR1	E	1 -1 1/16	9c
14F410	VR3	E	1⅜-1 7/16	9c
14F411	VR4	E	1½-1 9/16	12c
14F412	VR6	E	1¾-1 13/16	15c
14F413	VR8	E	2 -2 1/16	18c
14F414	TH13	D	⅜	3c
14F415	TH15	D	½- 9/16	
14F416	TH17	D	⅝- 11/16	
14F417	TH19	D	¾- 13/16	
14F418	TH21	D	⅞- 15/16	
14F419	TH23	D	1 -1 1/16	
14F420	TH25	D	1⅜-1 7/16	6c

14F421. MW-100. Mtg. wrench for FP & WP Types 1.03

INSULATING SLEEVES

Fibre insulating sleeves for FP type capacitors. Closed end. Weight, 2 oz.

No.	Type	Size	NET
14F422	CE-1	¾x2''	6c
14F423	CE-3	1 x2''	
14F424	CE-4	1 x3''	
14F425	CE-5	1⅜x2''	
14F426	CE-6	1⅜x3''	
14F427	CE-7	1 x2½''	6c
14F428	CE-8	1 x4''	9c
14F429	CE-9	1⅜x2½''	6c
14F430	CE-10	1⅜x4''	9c

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STAFF OF EXPERTS

FP AND WP CAPACITORS
SINGLE SECTION

No.	Type	Mfd.	Wkg. Volts	Size	1-9	10-24	25-49	50-99	100-249
14F216	WP039A	1000	15	1x2½''	1.53	1.255	.941	.732	.585
14F217	WP041A	2000	15	1⅜x2½''	2.07	1.923	1.442	1.122	.897
14F243	WP042A	3000	15	1⅜x3''	2.10	2.10	1.822	1.417	1.34
14F213	WP055A	100	25	1x2''	.96	.846	.634	.493	.394
14F214	WP057A	500	25	1x2½''	1.53	1.164	.873	.679	.543
14F215	WP059A	1000	25	1⅜x2''	2.13	1.729	1.296	1.008	.806
14F212	WP065A	500	50	1⅜x2''	1.59	1.436	1.077	.837	.670
14F245	WP068A	1500	50	1⅜x4''	2.31	2.31	1.833	1.425	1.140
14F210	FP115A	50	150	1x2''	.99	.875	.656	.510	.408
14F211	FP116A	100	150	1x2½''	1.20	.989	.741	.577	.461
14F970	FP116.5A	120	150	1x3''	1.23	1.036	.777	.604	.483
14F247	FP117A	150	150	1x3''	1.29	1.100	.825	.641	.513
14F971	FP118A	200	150	1⅜x2½''	1.47	1.391	1.043	.811	.649
14F248	FP119A	300	150	1⅜x3''	1.68	1.630	1.223	.951	.761
14F249	FP125A	15	250	¾x2''	.930	.730	.547	.426	.340
14F972	FP140.6A	150	350	1⅜x2½''	2.55	1.957	1.467	1.141	.913
14F251	FP137A	50	350	1x2½''	1.26	1.098	.823	.640	.512
14F252	FP138A	80	350	1⅜x2½''	1.71	1.479	1.109	.863	.690
14F209	FP140A	125	350	1⅜x3''	2.37	1.796	1.347	1.047	.838
14F203	FP142A	10	450	¾x2''	.93	.767	.575	.447	.358
14F205	FP144A	20	450	1x2''	1.08	.962	.721	.561	.449
14F206	FP145A	30	450	1x2½''	1.17	1.066	.799	.622	.497
14F207	FP146A	40	450	1x2½''	1.23	1.163	.872	.678	.542
14F208	FP149A	80	450	1⅜x2½''	1.83	1.739	1.304	1.014	.811
14F973	FP150A	100	450	1⅜x3''	2.07	1.959	1.469	1.142	.914
14F974	FP171A	10	500	1x2''	.96	.901	.675	.525	.420
14F975	FP175A	30	500	1x2½''	1.20	1.173	.879	.684	.547
14F976	FP177A	40	500	1x3''	1.50	1.310	.982	.764	.611
14F291	FP187A	90	500	1⅜x3''	2.10	2.10	1.637	1.273	1.018

DUAL SECTION

No.	Type	Mfd.	Wkg. Volts	Size	1-9	10-24	25-49	50-99	100-249
14F229	WP200A	1000-1000	15-15	1⅜x2½''	2.64	2.034	1.526	1.187	.949
14F241	FP208A	20-20	150-150	1x2''	1.02	.964	.723	.562	.450
14F255	FP210A	40-20	150-150	1x2''	1.08	1.007	.755	.587	.470
14F242	FP212A	40-40	150-150	1x2½''	1.14	1.050	.787	.612	.490
14F286	FP213A	50-30	150-150	1x2½''	1.29	1.050	.787	.612	.490
14F228	FP214A	50-50	150-150	1x2½''	1.56	1.099	.824	.641	.513
14F977	FP216.2A	80-40	150-150	1x2½''	1.38	1.142	.856	.666	.533
14F292	FP216.4A	200-200	150-150	1⅜x4''	2.40	2.00	1.50	1.167	.933
14F978	FP216.1A	200-5	200-200	1⅜x2½''	1.65	1.650	1.280	.996	.796
14F226	FP217A	20-20	250-250	1x2''	1.14	1.038	.779	.605	.484
14F227	FP221A	40-40	250-250	1x3''	1.50	1.215	1.215	.911	.708
14F256	FP227A	20-20	350-350	1x2½''	1.38	1.143	.857	.667	.533
14F259	FP230A	20-50	450-250	1x3''	1.68	1.289	.967	.752	.601
14F219	FP231A	10-10	450-450	1x2''	1.14	1.072	.804	.625	.500
14F220	FP234A	20-20	450-450	1x3''	1.53	1.283	.962	.748	.599
14F221	FP237A	30-30	450-450	1⅜x2½''	1.83	1.675	1.256	.977	.781
14F222	FP238A	40-40	450-450	1⅜x3''	2.07	1.886	1.414	1.100	.880
14F260	FP239A	50-40	450-450	1⅜x3''	2.190	1.983	1.487	1.156	.925
14F223	FP240A	50-50	450-450	1⅜x3''	2.31	2.079	1.559	1.213	.97
14F225	FP245A	80-10	450-450	1⅜x3''	2.160	1.983	1.487	1.156	.925
14F980	FP258A	15-15	475-475	1x2½''	1.41	1.227	.920	.716	.573
14F287	FP266A	80-50	475-475	1⅜x4''	3.12	2.628	1.971	1.533	1.226
14F262	FP288A	40-40	500-500	1⅜x3''	2.58	2.171	1.628	1.266	1.013

TRIPLE SECTION

No.	Type	Mfd.	Wkg. Volts	Size	1-9	10-24	25-49	50-99	100-249
14F264	FP306A	40-20-20	150-150-25	1x1½''	1.38	1.125	.844	.656	.525
14F981	FP310A	40-40-20	150-150-25	1x1½''	1.44	1.180	.885	.688	.551
14F982	FP309A	50-30-100	150-150-25	1x1¾''	1.62	1.243	.932	.725	.580
14F983	FP311A	50-50-20	150-150-25	1x1¾''	1.59	1.228	.921	.716	.573
14F267	FP311.2A	20-20-20	150-150-150	1x1½''	1.38	1.110	.832	.647	.518
14F984	FP311.4A	40-20-20	150-150-150	1x1½''	1.44	1.165	.874	.679	.543
14F268	FP311.5A	40-40-40	150-150-150	1x1¾''	1.56	1.255	.941	.732	.585
14F986	FP311.7A	80-40-20	150-150-150	1⅜x2''	1.74	1.485	1.114	.866	.693
14F987	FP320A	40-20-20	250-250-250	1⅜x2''	1.74	1.506	1.129	.878	.702
14F269	FP345.2A	10-10-20	450-450-25	1x2''	1.44	1.131	.848	.659	.527
14F270	FP345.8A	20-20-20	450-450-25	1x2½''	1.83	1.397	1.048	.815	.652
14F271	FP346A	40-40-20	450-450-25	1⅜x3''	2.37	2.016	1.512	1.176	.940
14F274	FP375A	40-40-100	450-450-200	1⅜x3½''	2.97	2.339	1.754	1.364	1.091
14F275	FP375.8A	10-10-10	450-450-450	1x2½''	1.56	1.291	.968	.753	.602
14F277	FP376.3A	20-10-10	450-450-450	1x3''	1.74	1.386	1.039	.808	.647
14F278	FP376.5A	20-20-20	450-450-450	1⅜x2½''	2.16	1.788	1.341	1.043	.834
14F279	FP376.8A	40-40-10	450-450-450	1⅜x3''	2.49	2.097	1.573	1.223	.978
14F234	FP377.1A	40-40-40	450-450-450	1⅜x3½''	3.12	2.407	1.805	1.404	1.123
14F235	FP378A	80-40-20	450-450-450	1⅜x4''	3.24	2.621	1.965	1.529	1.223
14F989	FP391.1A	20-20-60	475-475-450	1⅜x3½''	2.91	2.302	1.726	1.342	1.074
14F231	FP394A	10-10-10	475-475-475	1x3''	1.62	1.341	1.005	.782	.625
14F280	FP398A	10-40-40	500-450-450	1⅜x3''	2.49	2.133	1.599	1.244	.995

QUADRUPLE SECTION

No.	Type	Mfd.	Wkg. Volts	Size	1-9	10-24	25-49	50-99	100-249
14F991	FP407.5A	40-40-20-200	150-150-150-10	1⅜x2''	1.92	1.583	1.187	.923	.738
14F992	FP408A	60-40-20-200	150-150-150-10	1⅜x2''	2.07	1.626	1.219	.948	.758
14F994	FP411.32A	80-40-40-40	150-150-150-25	1⅜x2½''	2.16	1.675	1.256	.977	.782
14F995	FP419.4A	100-10-200-30	300-300-150-150	1⅜x4''	3.54	2.422	1.817	1.413	1.130
14F996	FP428.4A	40-40-30-30	450-450-350-350	1⅜x4''	3.54	2.529	1.896	1.475	1.180
14F239	FP434A	10-10-10-10	450-450-450-450	1⅜x2''	2.01	1.669	1.251	.973	.778
14F289	FP434.5A	20-10-10-10	450-450-450-450	1⅜x2''	2.22	1.766	1.324	1.030	.824
14F240	FP444A	20-20-20-20	450-450-450-450	1⅜x3''	2.82	2.099	1.574	1.224	.979
14F282	FP444.8A	30-30-20-20	450-450-450-450	1⅜x3''	3.12	2.293	1.720	1.338	1.070
14F283	FP447A	40-40-20-20	450-450-450-450	1⅜x4''	3.33	2.529	1.897	1.475	1.180
14F285	FP474A	10-10-10-10	475-475-475-475	1⅜x2''	2.10	1.737	1.303	1.013	.810
14F990	FP447.5A	40-40-30-30	450-450-450-450	1⅜x4''	3.63	2.723	2.042	1.588	1.271

CORNELL-DUBILIER CAPACITORS

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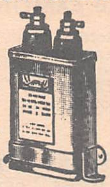
Similar to CP70 Specifications



Dykanol filled capacitors impervious to age or heat. Hermetically sealed in metal cases. All are type TJU, with universal mounting bracket, except *TJL, with L-shaped mounting foot brackets. Type TJH with strap and screw spade lugs and type TJL are available in all values on special order only. Insulators ⅞" high. Av. shpg. wt. 5 lbs.

600 Working Volts DC

Stk. No.	Type	Mfd.	H. x W. x D.	1-9	10-24	25-49	50-up
15F550	6010	1	2⅛x1 13/16x1⅙"	2.678	1.432	1.345	1.326
15F551	6020	2	2⅞x1 13/16x1 1/16"	3.197	1.711	1.557	1.524
15F552	6040	4	3⅜x2½x1 3/16"	4.317	2.276	1.049	2.001
15F548	6060	6	4⅝x2½x1 3/16"	5.103	2.655	2.452	2.349
15F553	6080	8	3 13/16x3¾x1¼"	6.180	3.224	2.917	2.751
15F554	6100	10	4⅝x3¾x1¼"	6.643	3.455	3.200	3.146

1000 Working Volts DC

Stk. No.	Type	Mfd.	H. x W. x D.	1-9	10-24	25-49	50-up
15F541	10001	.1	2x1 13/16x1 1/16"	2.256	1.389	1.285	1.263
15F542	100025	.25	2⅛x1 13/16x1 1/16"	2.60	1.405	1.318	1.288
15F586	10005	.5	2⅛x1 13/16x1 1/16"	2.668	1.494	1.346	1.314
15F556	10020	2	4x1 13/16x1 1/16"	3.613	1.919	1.773	1.742
15F557	10040	4	4⅝x2½x1 3/16"	4.838	2.539	2.306	2.256
15F558	10080	8	3⅞x3¾x1¾"	6.924	3.608	3.317	3.255
15F559	10100	10	4⅝x3¾x1¾"	7.931	4.114	3.821	3.758
15F587	10150	15	4¾x3¾x2½"	10.821	5.806	5.476	5.405

1500 Working Volts DC

Stk. No.	Type	Mfd.	H. x W. x D.	1-9	10-24	25-49	50-up
15F588	15005	.5	2⅞x1 13/16x1 1/16"	3.197	1.591	1.488	1.466
15F560	15010	1	4x1 13/16x1 1/16"	3.425	1.825	1.780	1.649
15F561	15020	2	4⅛x2½x1 3/16"	4.676	2.273	2.112	2.079
15F562	15040	4	4⅝x3¾x1¼"	6.343	3.366	3.109	3.054
15F563	15080	8	4¾x3¾x2½"	9.984	5.221	4.892	4.822

2000 Working Volts DC

Stk. No.	Type	Mfd.	H. x W. x D.	1-9	10-24	25-49	50-up
15F589	20001	.1	2⅛x1 13/16x1 1/16"	3.706	1.870	1.738	1.710
15F590	200025	.25	2⅛x1 13/16x1 1/16"	3.877	1.943	1.844	1.823
15F591	20005	.5	2⅞x1 13/16x1 1/16"	4.138	2.076	1.902	1.866
15F565	20010	1	3⅜x2½x1 3/16"	4.641	2.548	2.364	2.316
15F566	20020	2	4x3¾x1¼"	5.731	2.948	2.738	2.694

2500 Working Volts DC

Stk. No.	Type	Mfd.	H. x W. x D.	1-9	10-24	25-49	50-up
15F543	25005	.5	3½x3¾x1¼"	5.670	2.874	2.612	2.556
15F569	25010	1	3¼x3¾x1¾"	6.587	3.473	2.149	3.080
15F571	25040*	4	4x3¾x4 9/16"	13.030	6.929	6.247	6.101
15F572	25100*	10	6⅜x3¾x4 9/16"	24.583	12.801	11.444	11.154

3000 Working Volts DC

Stk. No.	Type	Mfd.	H. x W. x D.	1-9	10-24	25-49	50-up
15F574	300025	.25	2½x2½x1 3/16"	7.398	3.844	3.423	3.333
15F575	30005	.5	3⅞x2½x1 3/16"	8.087	4.200	3.733	3.633
15F576	30010	1	3 13/16x3¾x2¼"	9.615	4.035	4.516	4.405
15F577	30020*	2	4⅛x3¾x3 3/16"	12.754	6.802	6.093	5.941
15F578	30040*	4	4¾x3¾x4 9/16"	17.832	9.303	8.292	7.076

4000 Working Volts DC

Stk. No.	Type	Mfd.	H. x W. x D.	1-9	10-24	25-49	50-up
15F545	400025	.25	2¾x3¾x2¼"	7.840	4.085	3.631	3.534
15F546	40005	.5	4x3¾x2¼"	9.009	4.670	4.116	4.018

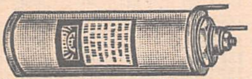
5000 Working Volts DC

Stk. No.	Type	Mfd.	H. x W. x D.	1-9	10-24	25-49	50-up
15F582	50005	.5	4¼x3¾x2¼"	9.878	5.173	4.681	4.558
15F583	50010*	1	4¼x3¾x4 9/16"	13.839	7.344	6.563	6.396
15F584	50020*	2	6x3¾x4 9/16"	20.652	10.820	9.600	9.339

6000 Working Volts DC

Stk. No.	Type	Mfd.	H. x W. x D.	1-9	10-24	25-49	50-up
15F547	60001	.1	2¾x3¾x2¼"	10.802	5.636	4.949	4.852

TYPE TNAD CAPACITORS



Dykanol threaded neck capacitors. Two solder lug terminals insulated from case. Temp. range: —55°C to +85°C. Std. tol. of +20% and —10%. Meet MIL-C-25A spec. Approx. Shpg. wt., 4 oz.

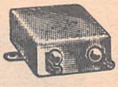
Stk. No.	Type	Mfd.	L.xD.	Volts	EACH
15F595	6040	4	4½x1½"	600	4.17
15F596	10010	1	2⅞x1½"	1,000	2.94
15F598	15005	0.5	2⅞x1½"	1,500	3.44

TYPE TLA CAPACITORS

Impregnated and filled with Dykanol "G" (chlorinated diphenyl), a non-inflammable, non-oxidizable liquid. Temp. range: —55°C to +85°C. Std. tol. +20%, —10%. 600 volts DC working. Approx. shpg. wt., 4 oz.

Stk. No.	Type	Mfd.	L.xD.	EACH
15F635	TLA6020	2	2⅞x1½"	2.70
15F636	TLA6040	4	4½x1½"	3.70

TYPE DYR OIL FILLED BATHTUBS



Dykanol filled capacitors for RF, audio and AC circuits. Similar to JAN CP53, built to meet MIL-C-25A performance and test requirements. Withstands temperature up to 85° C. Tolerance +20 to —10%. Immersion-proof. Sealed in metal cases. On triple-section units, can is negative. Average shipping weight, 6 oz.

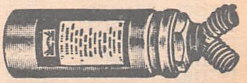
600 VOLTS DC WORKING

Stk. No.	Type	Mfd.	L.xW.xT.	1-9	10-24	25-49	50-99	100-up
15F500	6005	.05	1 13/16x1x¾"	1.69	1.14	.974	.716	.63
15F501	6010	.1	1 13/16x1x¾"	1.74	1.20	1.013	.745	.656
15F502	6025	.25	1 13/16x1x¾"	1.81	1.23	1.048	.771	.678
15F503	6050	.5	1 13/16x1x⅞"	1.93	1.31	1.120	.824	.725
15F504	6100	1	2x1¾x⅞"	2.24	1.52	1.296	.952	.838
15F505	6200	2	2x2x1⅛"	2.99	2.04	1.732	1.27	1.21
15F506	60055	.05-.05	1 13/16x1x¾"	2.31	1.57	1.338	.984	.866
15F507	6011	.1-.1	1 13/16x1x¾"	2.39	1.63	1.382	1.015	.893
15F508	6022X	.25-.25	1 13/16x1x⅞"	2.45	1.67	1.418	1.044	.918
15F509	6055	.5-.5	2x1¾x⅞"	2.74	1.88	1.596	1.176	1.032
15F510	6110	.1-.1	2x2x1⅛"	3.36	2.29	1.943	1.428	1.258
15F511	6111	3x.1	1 13/16x1x¾"	2.72	1.86	1.576	1.159	1.019
15F513	6555	3x.5	2x2x1⅛"	3.72	2.54	2.161	1.589	1.398

1000 VDC WORKING

Stk. No.	Type	Mfd.	L.xW.xT.	1-9	10-24	25-49	50-99	100-up
15F515	10010	.1	1 13/16xix¾"	1.85	1.26	1.07	.787	.693
15F516	10025	.25	1 13/16x1x¾"	1.89	1.28	1.09	.803	.706
15F517	10050	.5	2x1¾x1 3/16"	2.02	1.37	1.16	.860	.756
15F518	10100	1	2x2x1⅛"	2.75	1.87	1.59	1.17	1.031
15F520	10011	.1-.1	1 13/16x1x¾"	2.46	1.67	1.42	1.045	.918

TYPE KR ALUMINUM CAN CAPACITOR



Single hole inverted mounting aluminum can electrolytics. Ideal for replacement of 1" diameter wet type electrolytics in older equipment. Shipping wt., 6 oz.

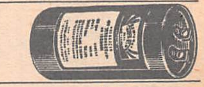
600 VDC WORKING

Stk. No.	Type	Mfd.	DxL	EACH
15F451	608C	8	1⅜x4⅜"	1.85
15F452	616C	16	1⅜x4⅜"	2.20

450 VOLTS DC WORKING

Stk. No.	Type	Mfd.	DxL	EACH
15F531	508	8	1 x2½"	1.29
15F532	520	20	1⅜x2½"	1.62

MOTOR STARTING CAPACITORS



Type ETB are electrolytic motor starting Capacitors. All the units are for 110 volts 50/60 cycles AC.

Stock No.	Mfr. Type	Mfd. Min.-Max.	DxL	NET
15F437	145-3	130-157	1⅜x3⅛"	1.73
15F438	175-5	161-180	1⅜x3⅛"	1.91
15F439	215	190-240	1½x3⅛"	2.29
15F441	255-2	243-270	1½x4⅛"	2.76
15F442	285	270-300	1¾x4⅛"	2.79
15F443	310-1	297-330	2 x3⅛"	2.85
15F430	115	108-120	1⅜x3⅛"	1.68
15F431	130-4	124-138	1⅜x2⅝"	1.73
15F432	400	378-420	2 x4⅛"	3.53
15F433	675	640-720	2½x4⅛"	5.28

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CORNELL-DUBILIER CAPACITORS

"BLACK CAT" MOLDED CAPACITORS

BLACK CAT
PKM GP5
.5 MFD.
600 V.D.C.

Dual dielectric, molded tubular capacitors of Du-Pont Mylar and Kraft assuring high temperature operation, exceptional moisture resistance, and high reliability. Cornell-Dubilier's "FIXFIL" impregnant (a solid thermosetting compound) and a rugged plastic case make PKM capacitors ideal for the most rugged service. For operation at temperatures from —40° C to +125° C without derating. Tolerance: ±10%. Shpg. wt. 3 oz.

200 WVDC

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-up
15F1168	PKM2D1	.001	5/16x1"	.17	.13	.10	.08
15F1169	PKM2D22	.0022	5/16x1"	.17	.13	.10	.08
15F1170	PKM2D47	.0047	5/16x1"	.17	.13	.10	.08
15F1171	PKM2S1	.01	5/16x1"	.15	.11	.09	.07
15F1172	PKM2S22	.022	⅜x1¼"	.18	.12	.09	.07
15F684	PKM2S47	.047	7/16x1¼"	.18	.13	.10	.08
15F1173	PKM2S56	.056	7/16x1¼"	.18	.13	.10	.08
15F1174	PKM2S68	.068	7/16x1¼"	.21	.16	.11	.09
15F1175	PKM2S82	.082	½x1½"	.21	.16	.11	.09
15F686	PKM2P1	.10	½x1½"	.21	.16	.12	.10
15F687	PKM2P15	.15	½x1½"	.24	.19	.16	.13
15F688	PKM2P22	.22	⅝x1⅞"	.27	.21	.18	.14
15F1176	PKM2P27	.27	⅝x1⅞"	.33	.26	.21	.18
15F1177	PKM2P33	.33	11/16x1 15/16"	.36	.28	.23	.19
15F1178	PKM2P39	.39	11/16x1 15/16"	.39	.30	.25	.20
15F690	PKM2P47	.47	11/16x1 15/16"	.45	.35	.31	.25
15F1179	PKM2P56	.56	¾x2¼"	.48	.38	.34	.32
15F1180	PKM2P68	.68	¾x2¼"	.54	.43	.38	.37
15F1181	PKM2P82	.82	1x2⅛"	.60	.48	.45	.40
15F692	PKM2W1	1.0	1x2⅛"	.63	.50	.42	.34

400 WVDC

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-up
15F1182	PKM4D1	.001	5/16x1"	.17	.13	.10	.08
15F1183	PKM4D12	.0012					
15F1184	PKM4D15	.0015					
15F1185	PKM4D18	.0018					
15F1186	PKM4D22	.0022					
15F1187	PKM4D33	.0033					
15F1188	PKM4D39	.0039					
15F1189	PKM4D47	.0047					
15F1190	PKM4D56	.0056					
15F1191	PKM4D68	.0068					
15F1192	PKM4D82	.0082					
15F693	PKM4S1	.01	5/16x1"	.15	.11	.09	.07
15F1193	PKM4S12	.012	5/16x1"				
15F694	PKM4S15	.015	⅜x1¼"				
15F1194	PKM4S18	.018	⅜x1¼"	.18	.13	.10	.08
15F696	PKM4S22	.022					
15F1195	PKM4S27	.027					
15F697	PKM4S33	.033					
15F1196	PKM4S39	.039					
15F698	PKM4S47	.047	7/16x1¼"	.18	.13	.10	.08
15F1197	PKM4S56	.056		.18	.13	.10	.08
15F640	PKM4S68	.068		.21	.16	.11	.09
15F1198	PKM4S82	.082	½x1½"	.21	.16	.11	.09
15F641	PKM4P1	.10		.21	.16	.12	.10
15F1199	PKM4P12	.12		.24	.19	.16	.13
15F642	PKM4P15	.15		.24	.19	.16	.13
15F1279	PKM4P18	.18	9/16x1 9/16"	.24	.19	.16	.13
15F643	PKM4P22	.22	⅝x1⅞"	.27	.21	.18	.14
15F1280	PKM4P27	.27	⅝x1⅞"	.33	.26	.21	.18
15F645	PKM4P33	.33	11/16x1 15/16"	.36	.28	.23	.19
15F1281	PKM4P39	.39	11/16x1 15/16"	.39	.30	.25	.20
15F646	PKM4P47	.47	11/16x1 15/16"	.45	.35	.31	.25
15F1282	PKM4P56	.56	¾x2¼"	.48	.38	.34	.32
15F648	PKM4P68	.68	¾x2¼"	.54	.43	.38	.37
15F1283	PKM4P82	.82	1x2⅛"	.60	.48	.45	.40
15F649	PKM4W1	1.0	1x2⅛"	.75	.60	.52	.48

600 WVDC

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-up
15F360	PKM6D1	.001	5/16x1"	.15	.11	.09	.07
15F1284	PKM6D12	.0012					
15F361	PKM6D15	.0015					
15F1285	PKM6D18	.0018					
15F362	PKM6D22	.0022					
15F363	PKM6D33	.0033					
15F1286	PKM6D39	.0039	⅜x1¼"				
15F364	PKM6D47	.0047					
15F1287	PKM6D56	.0056					

600 WVDC Cont.

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-up
15F365	PKM6D68	.0068	⅜x1¼"	.18	.12	.10	.08
15F1288	PKM6D82	.0082					
15F366	PKM6S1	.01					
15F1289	PKM6S12	.012					
15F367	PKM6S15	.015					
15F1290	PKM6S18	.018					
15F368	PKM6S22	.022	⅜x1¼"	.18	.13	.10	.08
15F1291	PKM6S27	.027	7/16x1¼"	.18	.13	.10	.08
15F369	PKM6S33	.033	7/16x1¼"	.21	.14	.11	.09
15F1292	PKM6S39	.039	½x1½"	.21	.15	.11	.09
15F370	PKM6S47	.047		.24	.15	.12	.10
15F1293	PKM6S56	.056		.24	.15	.12	.10
15F371	PKM6S68	.068		.27	.17	.13	.11
15F1294	PKM6S82	.082	9/16x1 9/16"	.27	.18	.14	.12
15F372	PKM6P1	.10	9/16x1 9/16"	.27	.20	.16	.13
15F1295	PKM6P12	.12	⅝x1⅞"	.27	.21	.17	.14
15F373	PKM6P15	.15	⅝x1⅞"	.30	.23	.20	.18
15F1296	PKM6P18	.18	11/16x1 15/16"	.36	.28	.24	.22
15F374	PKM6P22	.22	11/16x1 15/16"	.42	.33	.29	.24
15F1297	PKM6P27	.27	11/16x1 15/16"	.48	.38	.34	.28
15F375	PKM6P33	.33	¾x2¼"	.54	.43	.38	.33
15F1298	PKM6P39	.39	¾x2¼"	.60	.48	.45	.40
15F376	PKM6P47	.47	1x2⅛"	.75	.60	.52	.42
15F1299	PKM6P56	.56	1x2⅛"	.78	.63	.55	.44

1000 WVDC

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-up
15F1446	PKM10D1	.001	5/16x1"	.30	.14	.11	.09
15F1447	PKM10D12	.0012					
15F1448	PKM10D15	.0015					
15F1449	PKM10D18	.0018					
15F1538	PKM10D22	.0022	⅜x1¼"				
15F1539	PKM10D33	.0033					
15F1540	PKM10D39	.0039					
15F061	PKM10D47	.0047					
15F1541	PKM10D56	.0056					
15F063	PKM10D68	.0068	7/16x1¼"	.30	.15	.12	.10
15F1542	PKM10D82	.0082		.30	.15	.12	.10
15F064	PKM10S1	.01		.30	.16	.13	.10
15F1543	PKM10S12	.012		.30	.17	.13	.10
15F065	PKM10S15	.015	½x1½"	.30	.18	.14	.11
15F1544	PKM10S18	.018		.30	.19	.15	.12
15F067	PKM10S22	.022		.30	.21	.16	.13
15F1545	PKM10S27	.027		.30	.22	.17	.14
15F1546	PKM10S33	.033		.30	.23	.17	.14
15F1547	PKM10S39	.039	9/16x1 9/16"	.36	.24	.18	.15
15F070	PKM10S47	.047	9/16x1 9/16"	.36	.25	.19	.16
15F1548	PKM10S56	.056	⅝x1⅞"	.39	.26	.20	.16
15F072	PKM10S68	.068	⅝x1⅞"	.42	.27	.21	.17
15F1549	PKM10S82	.082	11/16x1 15/16"	.42	.30	.25	.20
15F073	PKM10P1	.10	11/16x1 15/16"	.45	.35	.31	.26
15F1594	PKM10P12	.12	¾x2¼"	.46	.35	.32	.27
15F1595	PKM10P15	.15	¾x2¼"	.52	.36	.34	.28
15F1596	PKM10P18	.18	¾x2¼"	.57	.37	.35	.29
15F1597	PKM10P22	.22	1x2⅛"	.60	.40	.39	.30

1600 WVDC

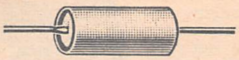
Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-up
15F1599	PKM16D1	.001	⅜x1¼"	.39	.30	.24	.19
15F1624	PKM16D22	.0022	⅜x1¼"	.39	.30	.25	.20
15F1625	PKM16D47	.0047	⅜x1¼"	.39	.30	.25	.20
15F1626	PKM16D68	.0068	7/16x1¼"	.39	.30	.26	.21
15F1627	PKM16D82	.0082	7/16x1¼"	.39	.30	.26	.21
15F030	PKM16S1	.01	½x1½"	.42	.33	.26	.21
15F031	PKM16S15	.015	½"x1½"	.42	.33	.29	.23
15F1629	PKM16S22	.022	⅝x1⅞"	.42	.33	.29	.23
15F1630	PKM16S33	.033	⅝x1⅞"	.42	.33	.29	.23

- **NEWARK KEEPS PACE** with current dynamic progress in research and development and leads in procuring and supply the product you need.
- **YOUR ORDER** is filled the same day it is received.
- **EMERGENCY REQUIREMENTS** are sped to you within minutes.
- **PHONE, WRITE, WIRE** for the electronics equipment you need.

CORNELL-DUBILIER CAPACITORS

CDE

NEW MPY CAPACITORS



Have wax free triclad case. Epoxy end seal which will not flow at operating temperature. Space saving; excellent moisture resistance; high insulation resistance self healing. Operating temperature: —40°C to +125°C at full rated voltage. Av. shpg. wt. 3 oz.

200 VOLT DC WORKING

Stock No.	Type	Mfd.	Dia. x L.	1-24	25-49	50-99	100-up
15F864	MPY2S5	.05	1/4x5/8"	.44	.26	.20	.180
15F865	MPY2P1	.1	3/8x5/8"	.46	.28	.21	.189
15F866	MPY2P25	.25	15/32x5/8"	.67	.39	.30	.270
15F867	MPY2P5	.5	7/16x1 1/8"	.78	.47	.36	.319
15F868	MPY2W1	1.0	9/16x1 1/8"	1.05	.62	.48	.427
15F869	MPY2W2	2.0	5/8x1 7/16"	1.43	.85	.66	.583

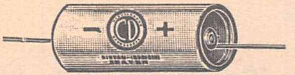
400 VOLT DC WORKING

Stock No.	Type	Mfd.	Dia.xL.	1-24	25-49	50-99	100-up
15F873	MPY4S5	.05	7/16x5/8"	.46	.28	.21	.189
15F874	MPY4P1	.1	3/8x1 1/8"	.56	.30	.23	.203
15F875	MPY4P25	.25	1/2x1 1/8"	.73	.43	.33	.297
15F876	MPY4P5	.5	5/8x1 7/16"	.93	.55	.43	.378
15F877	MPY4W1	1.0	11/16x1 13/16"	1.29	.77	.60	.529

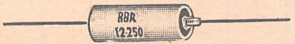
600 VOLT DC WORKING

Stock No.	Type	Mfd.	Dia.xL.	1-24	25-49	50-99	100-up
15F878	MPY6S1	.01	1/4x5/8"	.44	.26	.20	.180
15F879	MPY6S2	.02	3/8x5/8"	.46	.28	.21	.189
15F881	MPY6S5	.05	15/32x5/8"	.52	.31	.24	.212
15F882	MPY6P1	.1	3/8x1 1/8"	.58	.34	.26	.234
15F883	MPY6P25	.25	9/16x1 1/8"	.90	.54	.41	.367
15F884	MPY6P5	.5	5/8x1 7/16"	1.13	.67	.52	.459
15F885	MPY6W1	1.0	23/32x2 3/8"	1.40	.84	.64	.572

TYPE BBR AND BR "BLUE BEAVER" ELECTROLYTIC CAPACITORS



Type BR



Type BBR

Hermetically sealed in tubular aluminum containers with cardboard sleeve. Type BBR are miniature versions of the BR and are especially popular for cramped space installations. Anodes and cathodes of all 150V BBR and BR are etched. This recommends for use with Junction Rectifiers. On all types the negative terminal is grounded to can. Type BR is self supported by rigid tinned copper leads. Larger sizes may be supported by a metal strap. Temperature range: to +85°C except 500VDC to +65°C.

3 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-49	50-99	100-up
15F991	BBR25-3	25	3/8x1 1/16"	.51	.35	.28
15F992	BBR50-3	50	3/8x1 1/16"	.57	.38	.30

6 DC W. Volts

Stock No.	Type	Mfd.	DxL	1-49	50-99	100-up
15F310	BBR5-6	5	3/8x1 1/16"	.48	.32	.26
15F311	BBR25-6	25	3/8x1 1/16"	.51	.36	.29
15F312	BBR50-6	50	3/8x1 1/16"	.57	.39	.31
15F314	BR100-6	100	1/2x1 1/16"	.72	.46	.37
15F315	BR250-6	250	1/2x1 7/16"	.81	.55	.44
15F193	BR500-6	500	1/2x1 1/16"	.93	.63	.50
15F153	BR1000-6	1000	5/8x1 11/16"	1.14	.79	.63
15F154	BR2000-6	2000	3/4x2"	1.38	.96	.77

15 DC W. Volts

Stock No.	Type	Mfd.	DxL	1-49	50-99	100-up
15F316	BR100-15	100	1/2x1 1/16"	.75	.47	.38
15F159	BR250-15	250	1/2x1 1/16"	.93	.63	.51
15F160	BR500-15	500	1/2x1 7/16"	1.05	.74	.59
15F165	BR1000-15	1000	5/8x1 11/16"	1.38	.83	.75
15F166	BR2000-15	2000	3/4x2"	1.92	1.10	.88

25 DC W. Volts

Stock No.	Type	Mfd.	DxL	1-49	50-99	100-up
15F317	BBR10-25	10	3/8x1 1/16"	.60	.33	.26
15F318	BBR20-25	20	3/8x1 1/16"	.60	.33	.27
15F319	BBR25-25	25	3/8x1 1/16"	.60	.34	.27
15F320	BR50-25	50	1/2x1 1/16"	.60	.36	.29
15F321	BR100-25	100	1/2x1 1/16"	.81	.44	.36
15F162	BR250-25	250	1/2x1 7/16"	1.02	.61	.49
15F163	BR500-25	500	5/8x1 11/16"	1.38	.83	.66

50 DC W. Volts

Stock No.	Type	Mfd.	DxL	1-49	50-99	100-up
15F322	BBR1-50	1	3/8x1 1/16"	.54	.30	.24
15F323	BBR2-50	2	3/8x1 1/16"	.54	.30	.24
15F324	BBR4-50	4	3/8x1 1/16"	.60	.32	.26
15F325	BBR5-50	5	3/8x1 1/16"	.60	.32	.26
15F326	BBR10-50	10	3/8x1 1/16"	.60	.33	.26
15F327	BR25-50	25	1/2x1 1/16"	.63	.34	.27
15F131	BR50-50	50	1/2x1 1/16"	.72	.40	.32
15F164	BR100-50	100	1/2x1 7/16"	.84	.46	.37
15F199	BR150-50	150	5/8x1 7/16"	.93	.51	.41
15F198	BR250-50	250	3/4x1 7/16"	1.05	.66	.51
15F197	BR500-50	500	7/8x1 11/16"	1.44	.86	.69

90 DC W. Volts

Stock No.	Type	Mfd.	DxL	1-49	50-99	100-up
15F328	BBR10-90	10	1/2x1 1/16"	.66	.34	.27
15F329	BBR16-90	16	1/2x1 7/16"	.66	.34	.27

150 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-49	50-99	100-up
15F330	BBR4-150	4	3/8x1 1/16"	.60	.33	.26
15F331	BBR8-150	8	1/2x1 1/16"	.63	.34	.27
15F332	BBR10-150	10	1/2x1 1/16"	.63	.35	.28
15F333	BBR12-150	12	1/2x1 1/16"	.66	.36	.29
15F334	BBR16-150	16	1/2x1 7/16"	.69	.38	.30
15F313	BBR20-150	20	1/2x1 7/16"	.72	.39	.31
15F302	BR25-150	25	3/4x1 7/16"	.75	.41	.33
15F862	BR30-150	30	3/4x1 7/16"	.78	.43	.34
15F124	BR40-150	40	3/4x1 11/16"	.81	.45	.36
15F125	BR50-150	50	3/4x1 11/16"	.84	.46	.37
15F303	BR60-150	60	7/8x1 11/16"	.90	.49	.39
15F126	BR80-150	80	7/8x1 11/16"	.96	.54	.43
15F167	BR100-150	100	1x2 1/2"	1.05	.58	.46
15F168	BR150-150	150	1x2 3/16"	1.14	.63	.51
15F098	BR200-150	200	1x3"	1.32	.73	.59
15F099	BR300-150	300	1x3 13/16"	1.53	.85	.68

250 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-49	50-99	100-up
15F993	BBR4-250	4	1/2x1 1/16"	.60	.37	.30
15F994	BBR8-250	8	1/2x1 7/16"	.69	.41	.33
15F995	BBR12-250	12	1/2x1 7/16	.75	.44	.35
15F115	BR16-250	16	3/4x1 7/16"	.78	.47	.38
15F116	BR20-250	20	3/4x1 7/16"	.81	.49	.40
15F304	BR30-250	30	3/4x1 11/16"	.87	.53	.42
15F117	BR40-250	40	3/4x2"	.93	.57	.46
15F305	BR50-250	50	7/8x1 11/16"	1.02	.62	.50
15F306	BR60-250	60	7/8x1 11/16"	1.08	.65	.52
15F309	BR200-250	200	1 3/8x1 1/8"	2.10	1.18	.94

350 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-49	50-99	100-up
15F886	BR4-350	4	5/8x1 1/16"	.63	.38	.30
15F887	BR8-350	8	5/8x1 7/16"	.72	.43	.34
15F888	BR12-350	12	3/4x1 7/16"	.78	.47	.38
15F890	BR20-350	20	3/4x1 7/16"	.87	.52	.42
15F892	BR40-350	40	7/8x2"	1.05	.62	.50
15F893	BR50-350	50	1x2"	1.11	.68	.54
15F894	BR60-350	60	1x2"	1.17	.71	.57
15F895	BR80-350	80	1x3"	1.26	.79	.63
15F896	BR100-350	100	1x3"	1.38	.85	.67

450 DC W. Volts

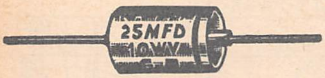
Stock No.	Type	Mfd.	D x L	1-49	50-99	100-up
15F102	BR1-450	1	5/8x1 1/16"	.66	.39	.31
15F103	BR2-450	2	5/8x1 1/16"	.66	.40	.37
15F104	BR4-450	4	5/8x1 1/16"	.69	.42	.34
15F105	BR8-450	8	3/4x1 7/16"	.75	.46	.37
15F106	BR10-450	10	3/4x1 7/16"	.78	.46	.37
15F107	BR12-450	12	3/4x1 7/16"	.81	.50	.40
15F108	BR16-450	16	3/4x1 11/16"	.84	.53	.42
15F109	BR20-450	20	7/8x1 11/16"	.93	.56	.45
15F110	BR30-450	30	1x2"	1.02	.62	.50
15F111	BR40-450	40	1x2 3/16"	1.08	.64	.52
15F147	BR60-450	60	1x3"	1.41	.78	.63
15F148	BR80-450	80	1x3 9/16"	1.68	.93	.75
15F169	BR100-450	100	1x3 13/16"	1.92	1.07	.86

500 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-49	50-99	100-up
15F307	BR4-500	4	5/8x1 7/16"	.72	.43	.34
15F100	BR8-500	8	3/4x1 7/16"	.78	.47	.38
15F308	BR12-500	12	3/4x1 11/16"	.84	.51	.41
15F101	BR16-500	16	7/8x1 11/16"	.90	.54	.43
15F145	BR20-500	20	7/8x2"	.96	.60	.48
15F146	BR30-500	30	1x2"	1.05	.64	.52

CDE CORNELL DUBILIER CAPACITORS

SUB-MINIATURE ELECTROLYTIC CAPACITORS

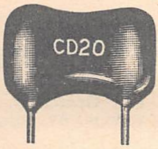


Type NLW. Rugged physical construction. Hermetically sealed aluminum foil electrolytic capacitors. Low leakage currents; freedom from shorts. Long shelf and operating life. Suitable for printed circuits. Tinned copper leads with plastic sleeves. Temperature range, —20°C to +85°C.

Stock No.	Type No.	Cap. Mfd.	WV DC	DxL	1-24	25-49	50-99	100-up
15F1003	NLW25-3	25	3	¼x ½	.74	.53	.41	.33
15F1068	NLW35-3	35	3	¼x ⅝	.74	.53	.41	.33
15F1004	NLW40-3	40	3	¼x ⅝	.74	.53	.41	.33
15F1005	NLW50-3	50	3	¼x ¾	.74	.53	.41	.33
15F1069	NLW75-3	75	3	1/16x ¾	.82	.55	.43	.34
15F1042	NLW100-3	100	3	⅜x ⅝	.83	.61	.47	.38
15F1070	NLW125-3	125	3	⅜x ⅝	.82	.61	.47	.38
15F1007	NLW200-3	200	3	⅜x ⅞	.88	.61	.47	.38
15F1074	NLW350-3	350	3	⅜x1	.97	.68	.53	.42
15F1075	NLW400-3	400	3	⅜x1¼	1.00	.70	.54	.43
15F1076	NLW450-3	450	3	⅜x1½	.79	.72	.56	.45
15F1014	NLW10-6	10	6	1/16x ½	1.03	.51	.39	.32
15F1018	NLW30-6	30	6	¼x ⅝	.83	.53	.41	.33
15F1054	NLW125-6	125	6	⅜x ¾	.88	.61	.47	.38
15F1055	NLW150-6	150	6	⅜x ⅞	.93	.61	.47	.38
15F1056	NLW250-6	250	6	⅜x1¼	1.00	.65	.51	.41
15F1078	NLW300-6	300	6	⅜x1½	1.06	.69	.54	.43
15F1025	NLW25-10	25	10	¼x ⅝	.85	.55	.43	.34
15F1026	NLW50-10	50	10	5/16x ¾	.91	.61	.47	.38
15F1081	NLW125-10	125	10	⅜x ⅞	1.09	.63	.49	.39
15F1082	NLW150-10	150	10	⅜x1	1.12	.64	.50	.40
15F1083	NLW225-10	225	10	⅜x1¼	1.23	.70	.54	.43
15F1084	NLW35-12	35	12	5/16x ⅝	.85	.55	.43	.34
15F1059	NLW100-12	100	12	⅜x ¾	1.03	.61	.47	.38
15F1060	NLW200-12	200	12	⅜x1¼	1.21	.68	.53	.42
15F1061	NLW250-12	250	12	⅜x1½	1.29	.68	.53	.42
15F1085	NLW4-15	4	15	3/16x ½	.76	.51	.39	.32
15F1028	NLW5-15	5	15	3/16x ½	.83	.51	.39	.32
15F1029	NLW10-15	10	15	¼x ½	.83	.51	.39	.32
15F1062	NLW15-15	15	15	¼x ⅜	.85	.53	.41	.33
15F1030	NLW20-15	20	15	¼x ⅝	.85	.53	.41	.33
15F1087	NLW25-15	25	15	5/16x ⅝	.85	.53	.41	.33
15F1031	NLW30-15	30	15	5/16x ⅝	.88	.55	.43	.34
15F1088	NLW35-15	35	15	⅜x ⅝	.91	.55	.43	.34
15F1063	NLW50-15	50	15	⅜x ⅝	.94	.61	.47	.38
15F1089	NLW75-15	75	15	⅜x ¾	1.00	.61	.47	.38
15F1064	NLW100-15	100	15	⅜x ⅞	1.06	.61	.47	.38
15F1090	NLW125-15	125	15	⅜x1	1.09	.63	.49	.39
15F1091	NLW175-15	175	15	⅜x1¼	1.18	.68	.53	.42
15F1065	NLW3-25	3	25	3/16x ½	.76	.51	.39	.32
15F1033	NLW6-25	6	25	¼x ½	.83	.53	.41	.33
15F1092	NLW8-25	8	25	¼x ½	.85	.53	.41	.33
15F1034	NLW10-25	10	25	¼x ⅜	.85	.53	.41	.33
15F1035	NLW15-25	15	25	5/16x ⅜	.85	.55	.43	.34
15F1093	NLW30-25	30	25	⅜x ⅝	.94	.61	.47	.38
15F1094	NLW35-25	35	25	⅜x ¾	.94	.61	.47	.38
15F1095	NLW75-25	75	25	⅜x1¼	1.15	.64	.50	.40
15F1096	NLW1-50	1	50	3/16x ½	.76	.59	.46	.36
15F1097	NLW2-50	2	50	3/16x ½	.79	.59	.46	.36
15F1098	NLW3-50	3	50	¼x ½	.79	.59	.46	.36
15F1037	NLW5-50	5	50	¼x ½	.85	.59	.46	.36
15F1143	NLW8-50	8	50	5/16x ½	.88	.59	.46	.37
15F1038	NLW10-50	10	50	3/16x ⅝	.88	.59	.46	.37
15F1144	NLW15-50	15	50	⅜x ⅝	.88	.61	.47	.38
15F1039	NLW20-50	20	50	⅜x ⅝	.88	.61	.47	.38
15F1145	NLW25-50	25	50	⅜x ¾	.91	.61	.47	.38
15F1066	NLW30-50	30	50	⅜x ¾	.94	.61	.47	.38
15F1146	NLW35-50	35	50	⅜x ⅞	1.00	.63	.49	.39
15F1147	NLW40-50	40	50	⅜x1	1.03	.64	.50	.40
15F1067	NLW75-50	75	50	⅜x1½	1.18	.65	.51	.41
15F1040	NLW2-100	2	100	¼x ⅝	.83	.59	.46	.37
15F1043	NLW6-100	6	100	⅜x ⅝	.88	.60	.47	.37
15F1044	NLW8-100	8	100	⅜x ¾	.91	.60	.47	.38
15F1045	NLW10-100	10	100	⅜x ⅞	.91	.60	.47	.38
15F1047	NLW20-100	20	100	⅜x1½	.94	.63	.49	.39
15F1148	NLW2-150	2	150	1/16x ⅜	.85	.63	.49	.39
15F1048	NLW3-150	3	150	¾x ⅝	.85	.63	.49	.39
15F1049	NLW5-150	5	150	⅜x ⅝	.91	.63	.49	.39
15F1050	NLW6-150	6	150	⅜x ¾	.91	.63	.49	.39
15F1051	NLW8-150	8	150	⅜x ⅞	.94	.63	.49	.39
15F1052	NLW10-150	10	150	⅜x1	.94	.63	.49	.39
15F1053	NLW12-150	12	150	⅜x1¼	.94	.64	.50	.40
15F1149	NLW15-150	15	150	⅜x1¼	.94	.65	.51	.41

SEE NEWARK FOR FAST SERVICE!

DIPPED MICA CAPACITORS



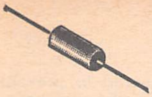
Multi-coated to meet rigid humidity requirements. Operating temperature range is —55°C to +125°C, without derating. Units will operate at temperatures up to +150°C. Complete capacitance range—from 1 mmf. thru 10,000 mmf. Tolerance: ±5% or 0.5 mmf (whichever is greater). Test voltage 20% higher than MIL-C-5B requirements.

CD15: Size—.440x.344. 500 DCWV.

Stk. No.	Type	MMF	1-49	50-99	100-249	250-499	500-999
15F1200	CD15-5V1	1	.12	.098	.076	.056	.047
15F1201	CD15-5V2	2					
15F1202	CD15-5V3	3					
15F1203	CD15-5V5	5					
15F1204	CD15-5Q1	10					
15F1205	CD15-5Q12	12					
15F1206	CD15-5Q15	15					
15F1207	CD15-5Q18	18					
15F1208	CD15-5Q2	20					
15F1209	CD15-5Q22	22					
15F1210	CD15-5Q24	24					
15F1211	CD15-5Q27	27					
15F1212	CD15-5Q3	30					
15F1213	CD15-5Q33	33					
15F1214	CD15-5Q36	36					
15F1215	CD15-5Q39	39					
15F1216	CD15-5Q43	43					
15F1217	CD15-5Q47	47					
15F1218	CD15-5Q5	50					
15F1219	CD15-5Q51	51					
15F1220	CD15-5Q56	56					
15F1221	CD15-5Q62	62					
15F1222	CD15-5Q68	68	.12	.105	.081	.061	.051
15F1223	CD15-5Q75	75	.12	.105	.081	.061	.051
15F1224	CD15-5Q82	82	.12	.108	.083	.062	.052
15F1225	CD15-5Q91	91	.12	.108	.083	.062	.052
15F1226	CD15-5T1	100	.12	.108	.083	.062	.052
15F1227	CD15-5T11	110	.15	.118	.091	.068	.057
15F1228	CD15-5T12	120	.15	.118	.091	.068	.057
15F1229	CD15-5T13	130	.15	.126	.097	.073	.061
15F1230	CD15-5T15	150	.15	.126	.097	.073	.061
15F1231	CD15-5T16	160	.15	.136	.104	.078	.065
15F1232	CD15-5T18	180	.18	.158	.121	.091	.076
15F1233	CD15-5T2	200	.18	.158	.121	.091	.076
15F1234	CD15-5T22	220	.18	.165	.127	.095	.079
15F1235	CD15-5T24	240	.18	.165	.127	.095	.079
15F1236	CD15-5T25	250	.18	.165	.127	.095	.079
15F1237	CD15-5T27	270	.21	.175	.134	.101	.084
15F1238	CD15-5T3	300	.21	.184	.142	.106	.089
15F1239	CD15-5T33	330	.24	.204	.157	.118	.098
15F1240	CD15-5T36	360	.24	.213	.169	.123	.103
15F1241	CD15-5T39	390	.26	.223	.172	.129	.107
CD19: Size—.610x.460 *.630x 480 **.650x.500. 500 DCWV.							
15F1242	CD19-5T43	430	.18	.156	.120	.090	.075
15F1243	CD19-5T47	470	.21	.174	.134	.100	.084
15F1244	CD19-5T5	500	.21	.174	.134	.100	.084
15F1245	CD19-5T51	510	.21	.174	.134	.100	.084
15F1246	CD19-5T56	560	.21	.192	.147	.111	.092
15F1247	CD19-5T62	620	.21	.192	.147	.111	.092
15F1248	CD19-5T68	680	.24	.210	.161	.121	.101
15F1249	CD19-5T75	750	.24	.210	.161	.121	.101
15F1250	CD19-5T82	820	.26	.228	.175	.131	.109
15F1251	CD19-5T91	910	.26	.246	.189	.142	.118
15F1252	CD19-5D1	1000	.29	.264	.203	.152	.127
15F1253	CD19-5D11	1100	.29	.264	.203	.152	.127
15F1254	CD19-5D12	1200	.32	.282	.217	.163	.135
15F1255	CD19-5D13	1300	.35	.300	.231	.173	.144
15F1256	CD19-5D15	1500	.38	.336	.258	.194	.161
15F1257	CD19-5D16	1600	.41	.354	.272	.204	.170
15F1258	CD19-5D18	1800	.44	.390	.300	.225	.187
15F1259	CD19-5D2	2000	.47	.426	.328	.246	.205
15F1260	CD19-5D22	2200	.50	.443	.341	.256	.213
15F1261	CD19-5D24	2400	.53	.480	.369	.277	.231
15F1262	CD19-5D25	2500	.56	.498	.383	.287	.239
15F1263	CD19-5D27	2700	.62	.534	.411	.308	.257
15F1264	CD19-5D3	3000	.68	.588	.452	.339	.283
CD20: Size—.740x.500 *.760x.540. 500 DCWV.							
15F1265	CD20-5D33	3300	.62	.534	.411	.308	.257
15F1266	CD20-5D36	3600	.65	.570	.438	.328	.274
15F1267	CD20-5D39	3900	.68	.606	.466	.350	.291
15F1268	CD20-5D43	4300	.73	.660	.508	.381	.317
CD30: Size—.780x.880. 500 DCWV.							
15F1269	CD30-5D47	4700	.73	.662	.510	.382	.319
15F1270	CD30-5D5	5000	.79	.693	.533	.400	.333
15F1271	CD30-5D51	5100	.79	.693	.533	.400	.333
15F1272	CD30-5D56	5600	.85	.755	.581	.435	.362
15F1273	CD30-5D62	6200	.91	.817	.628	.471	.393
15F1274	CD30-5D68	6800	1.03	.908	.699	.524	.437
15F1275	CD30-5D75	7500	1.09	.972	.746	.560	.466
15F1276	CD30-5D82	8200	1.21	1.062	.818	.613	.511
15F1277	CD30-5D91	9100	1.29	1.154	.888	.666	.555
15F1278	CD30-5S1	10000	1.41	1.246	.959	.719	.599

CORNELL DUBILIER CAPACITORS

MYLAR DIELECTRIC FILM ENCASED



Type WMF. Ultra compact Mylar dielectric tubular capacitor encased in a thin, tough Mylar film wrapping and end sealed with a high density thermosetting plastic. A most desirable unit where a metal case unit is not indicated. Extremely small in size, has high resistance to humidity and excellent capacitance stability with temp. and life. Temperature range: —55°C to +125°C. Tolerance: 10%.

100 WVDC

Stk. No.	Type	Mfd.	DxL (in.)	1-24	25-49	50-99	100-up
15F1450	WMF1D1	.001	.156x ½	.21	.14	.11	.08
15F1451	WMF1D15	.0015	.156x ½	.21	.14	.11	.08
15F1452	WMF1D22	.0022	.156x ½	.21	.14	.11	.08
15F1453	WMF1D33	.0033	.156x ½	.21	.14	.11	.09
15F1454	WMF1D47	.0047	.156x ½	.21	.14	.11	.09
15F1455	WMF1D68	.0068	.156x ½	.21	.15	.12	.09
15F1456	WMF1S1	.01	.156x ½	.21	.15	.12	.09
15F1457	WMF1S15	.015	.187x ½	.21	.15	.12	.09
15F1458	WMF1S22	.022	.203x ⅝	.24	.16	.13	.10
15F1459	WMF1S33	.033	.218x ⅝	.24	.16	.13	.10
15F1460	WMF1S47	.047	.234x ¾	.26	.17	.14	.11
15F1461	WMF1S68	.068	.265x ¾	.26	.18	.14	.11
15F1462	WMF1P1	.1	.281x ⅞	.35	.23	.18	.14
15F1463	WMF1P15	.15	.312x ⅞	.35	.24	.19	.15
15F1464	WMF1P22	.22	.328x1	.38	.26	.20	.16
15F1465	WMF1P33	.33	.375x1⅛	.44	.29	.22	.18
15F1466	WMF1P47	.47	.437x1¼	.50	.33	.26	.21
15F1467	WMF1P68	.68	.531x1¼	.56	.38	.30	.24
15F1468	WMF1W1	1.0	.562x1½	.85	.56	.44	.35
15F1469	WMF1W1P25	1.25	.625x1½	1.03	.68	.53	.42
15F1470	WMF1W1P5	1.5	.718x1¾	1.21	.81	.63	.50
15F1471	WMF1W2	2.0	.812x1¾	1.47	.98	.76	.61

200 WVDC

Stk. No.	Type	Mfd.	DxL (in.)	1-24	25-49	50-99	100-up
15F1472	WMF2D1	.001	.156x ½	.21	.14	.11	.08
15F1473	WMF2D15	.0015	.156x ½	.21	.14	.11	.08
15F1474	WMF2D22	.0022	.156x ½	.21	.14	.11	.08
15F1475	WMF2D33	.0033	.156x ½	.21	.14	.11	.09
15F1476	WMF2D47	.0047	.156x ½	.21	.14	.11	.09
15F1477	WMF2D68	.0068	.156x ½	.21	.15	.12	.09
15F1478	WMF2S1	.01	.171x ½	.21	.15	.12	.09
15F1479	WMF2S15	.015	.203x ½	.21	.15	.12	.09
15F1480	WMF2S22	.022	.250x ⅝	.24	.16	.13	.10
15F1481	WMF2S33	.033	.250x ¾	.24	.16	.13	.10
15F1482	WMF2S47	.047	.296x ¾	.26	.17	.14	.11
15F1483	WMF2S68	.068	.343x ¾	.26	.18	.14	.11
15F1484	WMF2P1	.1	.375x ⅞	.29	.16	.12	.10
15F1485	WMF2P15	.15	.453x ⅞	.35	.24	.19	.15
15F1486	WMF2P22	.22	.437x1⅛	.38	.26	.20	.16
15F1487	WMF2P33	.33	.484x1⅛	.44	.29	.22	.18
15F1488	WMF2P47	.47	.546x1¼	.50	.33	.26	.21
15F1489	WMF2P68	.68	.609x1⅝	.56	.38	.30	.24
15F1490	WMF2W1	1.0	.671x1¾	.85	.56	.44	.35
15F1491	WMF2W1P25	1.25	.750x1¾	1.03	.68	.53	.42
15F1492	WMF2W1P5	1.5	.828x1¾	1.21	.81	.63	.50
15F1493	WMF2W2	2.0	.875x1⅞	1.47	.98	.76	.61

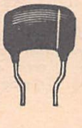
400 WVDC

Stk. No.	Type	Mfd	Size	1-24	25-49	50-99	100-up
15F1494	WMF4D1	.001	.156x ⅝	.21	.14	.11	.09
15F1495	WMF4D15	.0015	.156x ⅝	.21	.14	.11	.09
15F1496	WMF4D22	.0022	.156x ⅝	.21	.14	.11	.09
15F1497	WMF4D33	.0033	.156x ⅝	.24	.15	.12	.09
15F1498	WMF4D47	.0047	.187x ⅝	.24	.16	.12	.10
15F1499	WMF4D68	.0068	.218x ⅝	.24	.16	.13	.10
15F1500	WMF4S1	.01	.250x ⅝	.26	.17	.13	.10
15F1501	WMF4S15	.015	.296x ⅝	.26	.17	.13	.10
15F1502	WMF4S22	.022	.312x ¾	.26	.18	.14	.11
15F1503	WMF4S33	.033	.312x ⅞	.26	.18	.14	.11
15F1504	WMF4S47	.047	.343x ⅞	.29	.19	.15	.12
15F1505	WMF4S68	.068	.375x1	.32	.21	.16	.13
15F1506	WMF4P1	.1	.421x1	.32	.21	.17	.13
15F1507	WMF4P15	.15	.468x1¼	.35	.23	.18	.14
15F1508	WMF4P22	.22	.531x1⅜	.41	.26	.21	.16
15F1509	WMF4P33	.33	.562x1⅝	.65	.43	.33	.27
15F1510	WMF4P47	.47	.656x1⅝	.76	.51	.39	.32
15F1511	WMF4P68	.68	.750x1¾	.94	.62	.49	.39
15F1512	WMF4W1	1.0	.812x2	1.18	.78	.60	.48
15F1513	WMF4W1P25	1.25	.875x2	1.35	.90	.70	.56
15F1514	WMF4W1P5	1.5	.875x2¼	1.53	1.01	.80	.63
15F1515	WMF4W2	2.0	1.062x2¼	2.00	1.33	1.04	.83

600 WVDC

Stk. No.	Type	Mfd	Size	1-24	25-49	50-99	100-up
15F1516	WMF6D1	.001	.156x ¾	.24	.15	.12	.10
15F1517	WMF6D15	.0015	.171x ¾	.24	.15	.12	.10
15F1518	WMF6D22	.0022	.187x ¾	.24	.16	.12	.10
15F1519	WMF6D33	.0033	.203x ¾	.24	.16	.13	.10
15F1520	WMF6D47	.0047	.234x ¾	.26	.17	.13	.11
15F1521	WMF6D68	.0068	.265x ¾	.26	.18	.14	.11
15F1522	WMF6S1	.01	.312x ¾	.29	.19	.15	.12
15F1523	WMF6S15	.015	.312x ⅞	.29	.19	.15	.12
15F1524	WMF6S22	.022	.375x ⅞	.29	.20	.15	.12
15F1525	WMF6S33	.033	.375x1	.29	.20	.16	.12
15F1526	WMF6S47	.047	.437x1	.32	.21	.16	.13
15F1527	WMF6S68	.068	.531x1	.35	.22	.17	.14
15F1528	WMF6P1	.1	.500x1⅜	.41	.28	.22	.18
15F1529	WMF6P15	.15	.625x1⅜	.44	.30	.23	.19
15F1530	WMF6P22	.22	.687x1⅝	.50	.34	.27	.21
15F1531	WMF6P33	.33	.687x2	.88	.58	.45	.36
15F1532	WMF6P47	.47	.812x2	1.12	.75	.59	.47
15F1533	WMF6P68	.68	.937x2	1.50	1.00	.78	.62
15F1534	WMF6W1	1.0	1.125x2½	2.50	1.66	1.29	1.03
15F1535	WMF6W1P25	1.25	1.187x2½	2.82	1.88	1.46	1.17
15F1536	WMF6W1P5	1.5	1.187x3	3.41	2.26	1.76	1.41
15F1537	WMF6W2	2.0	1.375x3	4.29	2.85	2.22	1.78

DPMS DIELECTRIC SIDE-LEAD TUBULARS CAPACITORS



Type DPMS has two dielectrics—Mylar Polyester Film and a film of high grade paper. Features a "dipped" rock-hard casing which holds wire leads rigidly at fixed spacings. High humidity resistance. Crimped side leads for uniform mounting. —55°C. to +125°C. Derate working voltage 25% for +125°C operation.

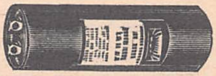
200 VDCW ± 10% Tol.

Stk. No.	Type	Cap. Mfd.	Size	1-24	25-49	50-99	100-up
15F1600	DPMS 2S2	.02	.350x .855	.15	.112	.086	.069
15F1601	DPMS 2S47	.047	.450x .855	.18	.122	.095	.076
15F1602	DPMS 2S5	.05	.450x .855	.18	.122	.095	.076
15F1603	DPMS 2P1	.1	.470x1.180	.21	.142	.110	.088
15F1604	DPMS 2P15	.15	.540x1.180	.24	.163	.127	.102
15F1605	DPMS 2P22	.22	.590x1.300	.26	.194	.151	.120
15F1606	DPMS 2P25	.25	.620x1.300	.26	.203	.158	.126
15F1607	DPMS 2P47	.47	.730x1.600	.35	.257	.201	.161
15F1608	DPMS 2P5	.5	.730x1.600	.35	.257	.201	.161

600 VDCW ± 10% Tol.

Stk. No.	Type	Cap. Mfd.	Size	1-24	25-49	50-99	100-up
15F1609	DPMS 6D1	.001	.340x .960	.15	.097	.077	.061
15F1610	DPMS 6D2	.002	.340x .690	.15	.099	.077	.061
15F1611	DPMS 6D25	.0025	.350x .690	.15	.099	.077	.061
15F1612	DPMS 6D3	.003	.370x .690	.15	.099	.077	.061
15F1613	DPMS 6D5	.005	.400x .690	.15	.099	.077	.061
15F1614	DPMS 6S1	.01	.340x .870	.18	.105	.082	.066
15F1615	DPMS 6S2	.02	.445x .870	.18	.122	.095	.075
15F1616	DPMS 6S3	.03	.415x1.150	.21	.135	.105	.084
15F1617	DPMS 6S47	.047	.490x1.150	.21	.145	.112	.090
15F1618	DPMS 6S5	.05	.490x1.150	.24	.145	.112	.090
15F1619	DPMS 6S68	.068	.540x1.300	.26	.173	.134	.107
15F1620	DPMS 6P1	.1	.640x1.300	.26	.201	.156	.125
15F1621	DPMS 6P2	.20	.730x1.560	.35	.252	.196	.157
15F1622	DPMS 6P22	.22	.750x1.560	.35	.272	.212	.169
15F1623	DPMS 6P25	.25	.830x1.560	.35	.292	.232	.189

TYPE FB HIGH CAPACITY ELECTROLYTICS



Type FB. Have a temp. range to +85°C. In round cardboard sleeve aluminum cans and designed for high capacity, low volt app. Av. Shpg. Wt., 8 oz.

Stock No.	Type FB	Mfd.	DC WV	D x L	1-24	25-49	50-99	100-up
15F406	1040	4000	10	1⅜x4⅛	2.85	1.94	1.50	1.33
15F407	1050	5000	10	1½x4⅛	3.09	2.10	1.62	1.44
15F409	1560	6000	15	2x4⅛	6.00	2.26	1.74	1.55
15F410	1820	2000	18	1⅜x3⅛	2.94	1.70	1.31	1.16
15F411	2510	1000	25	1⅜x3⅛	2.88	1.57	1.22	1.08
15F412	2520	2000	25	1⅜x4⅛	3.45	1.85	1.43	1.27
15F413	2540	4000	25	2x4⅛	5.70	2.33	1.80	1.60
15F408	2550	5000	25	2½x4⅛	6.60	2.71	2.09	1.86
15F419	3005	500	30	1⅜x3⅛	2.16	1.66	1.28	1.14
15F423	3010	1000	30	1⅜x4⅛	2.94	1.66	1.28	1.14
15F424	3020	2000	30	1¾x4⅛	4.44	1.89	1.46	1.30
15F425	3040	4000	30	2½x4⅛	6.30	2.59	2.00	1.78
15F426	3505	500	35	1⅜x3⅛	2.22	1.73	1.35	1.19
15F427	3510	1000	35	1⅜x4⅛	3.00	1.73	1.35	1.19
15F428	3540	4000	35	2½x4⅛	6.60	3.43	2.65	2.35
15F429	4005	500	40	1⅜x3⅛	2.28	1.80	1.39	1.24
15F476	4010	1000	40	1⅜x4⅛	3.90	1.80	1.39	1.24
15F477	4020	2000	40	1¾x4⅛	5.40	2.08	1.61	1.43
15F478	4030	3000	40	2x4⅛	6.30	2.75	2.21	1.88
15F479	4040	4000	40	2½x4⅛	6.90	4.11	3.17	2.82
15F414	5005	500	50	1⅜x3⅛	2.34	1.84	1.42	1.26
15F415	5010	1000	50	1⅜x4⅛	4.20	1.84	1.42	1.26
15F416	5020	2000	50	1¾x4⅛	5.46	2.29	1.77	1.57
15F417	5030	3000	50	2x4⅛	6.90	3.45	2.66	2.36
15F418	5040	4000	50	2½x4⅛	7.50	4.90	3.78	3.36

LET NEWARK SUPPLY ALL YOUR ELECTRONIC NEEDS!

CORNELL-DUBILIER

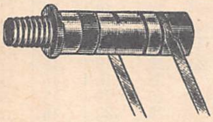
TWIST-TAB ELECTROLYTICS

UP 4C-170
CAP. W. V. POS.
20 25 BLAIN
10 150 △
10 150 □

Twist prong base dry electrolytics hermetically sealed in aluminum cans. Have positive lugs on bakelite bases. Can is common negative. Have projecting tongues for mounting on metal chassis. Bakelite and metal washers for easy mounting also furnished. Tinned for easy soldering. Average shipping weight, 5 oz. Also included are Type X, Selenium Rectifier Capacitors. Etched anode and cathode units especially engineered to prevent capacity drop due to high ripple and surge currents normally encountered in selenium rectifier circuits. A protective series-resistor of approx. 50 ohms for a 100 ma. load, should always be used to protect both the rectifier and filter capacitors.

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99	100-up
SINGLE SECTION . . . 500V							
15F202	A0560	80	1⅜x3"	2.12	1.58	1.23	.98
SINGLE SECTION . . . 450V							
15F283	A0470	30	1x2½"	1.15	.80	.62	.50
15F205	A0480	40	1x3"	1.21	.88	.68	.54
15F465	A0512	100	1⅜x3"	2.03	1.46	1.14	.91
SINGLE SECTION . . . 150V							
15F475	XA0262.1	200	1x3⅝"	1.44	1.07	.83	.67
15F288	XA0263	300	1⅜x3"	1.65	.76	.59	.47
SINGLE SECTION . . . 50V							
15F261	A0140	100	¾x2"	.97	.57	.45	.36
15F279	A0160	500	1⅜x2"	1.56	.94	.73	.58
15F262	A0170	1000	1⅜x3⅝"	2.20	1.49	1.16	.92
15F474	A0174	1500	1⅜x4⅛"	2.59	1.87	1.45	1.16
SINGLE SECTION . . . 15V							
15F215	A0060	1000	1x2½"	1.50	.94	.73	.58
15F216	A0070	2000	1⅜x2"	2.03	1.44	1.12	.89
DUAL SECTION . . . 500V							
15F217	B0500	20-20	1⅜x2½"	1.68	1.22	.95	.76

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99	100-up
DUAL SECTION . . . 450V							
15F222	B0440	40-20	1⅜x2½"	1.76	1.25	.97	.78
15F219	B0370	10-10	1x2"	1.12	.80	.62	.49
15F220	B0400	20-20	1x2½"	1.50	.96	.75	.60
15F221	B0430	30-30	1⅜x2½"	1.79	1.25	.97	.78
15F447	B0410	30-10	1x3"	1.47	.96	.75	.60
15F223	B0450	40-40	1⅜x2½"	2.03	1.41	1.10	.88
DUAL SECTION . . . 250V							
15F225	B0210	20-20	1x1½"	1.12	.78	.60	.48
DUAL SECTION . . . 150V							
15F293	XB0091	20-20	1x1½"	1.10	.81	.63	.51
15F449	XB0184.5	125-100	1⅜x2½"	2.06	1.20	.93	.75
15F463	XB0189	200-200	1⅜x2½"	2.35	1.58	1.22	.98
TRIPLE SECTION . . . 450V							
15F234	C0240	10-10-10	1x2½"	1.53	.96	.75	.60
QUADRUPLE SECTION . . . 450V							
15F252	D0090	10-10-10-10	1⅜x2"	1.97	1.25	.97	.78
15F254	D0480	10-10-10-20 (25v)	1⅜x2"	1.85	1.19	.92	.74
15F253	D0130	20-20-20-20	1⅜x3"	2.76	1.57	1.22	.93



JFD TUNERS

JFD LC TUNERS

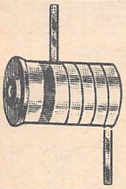
Combine precision variable piston capacitor with metallized inductor, to provide compact, tunable LC circuit. Offer more circuit in less space, economy, and faster assembly.

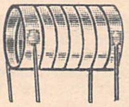
PANEL MOUNT

Stk. No.	Type	Min. MC	Max. MC	Size	1-24	25-99	100-199	200-299
19F1427	LC-303	450	700	.640x¼"	4.65	4.19	3.88	3.49
19F1428	LC-304	300	500	.850x¼"	4.80	4.32	4.00	3.60
19F1429	LC-306	200	450	1.109x¼"	4.95	4.46	4.13	3.71
19F1430	LC-309	125	200	1.696x¼"	5.40	4.86	4.50	4.05
19F1869	LC-333	450	700	⅝x¼"	3.60	3.24	3.00	2.70
19F1870	LC-334	300	500	27/32x¼"	3.75	3.38	3.13	2.81
19F1871	LC-336	200	450	1 7/64x¼"	4.05	3.65	3.38	3.04
19F1872	LC-339	125	200	1 11/16x¼"	4.20	3.78	3.50	3.15

PRINTED CIRCUIT

Stk. No.	Type	Min. MC	Max. MC	Size	1-24	25-99	100-199	200-299
19F1431	LC-313	450	700	43/64x¼''	4.35	3.92	3.63	3.26
19F1432	LC-314	300	500	57/64x¼''	4.65	4.19	3.88	3.49
19F1433	LC-316	200	450	1 9/64x¼''	4.80	4.32	4.00	3.60
19F1434	LC-319	125	200	1 47/64x¼''	5.25	4.73	4.38	3.94
19F1435	LC-323	450	700	43/64x¼''	4.35	3.92	3.63	3.26
19F1436	LC-324	300	500	57/64x¼''	4.65	4.19	3.88	3.49
19F1437	LC-326	200	450	1 9/64x¼''	4.80	4.32	4.00	3.60
19F1438	LC-329	125	200	1 47/64x¼''	5.25	4.73	4.38	3.94





FIXED METALIZED INDUCTORS

Precision metalized miniature inductors feature large space economy, fast assembly and reduced weight. The Inductor employs a silver film bonded to the glass dielectric. This construction results in a low temperature coefficient of inductance and low distributed capacitance. Rugged construction permits high stability under conditions of severe shock and vibration. All leads are made of silver plated copper. High Q over a broad frequency range. All inductors are available in panel or printed circuit types. Temperature: —55°C to +125°C. (*)—Q measured at 65 MC. (**)—Q measured at 25 MC.

LF-IP SERIES—PANEL MOUNT

Stk. No.	Type LF-IP-	uh ±5%	Q Min.	1-24	25-99	100-199	200-299
19F1800	005	.05	125*	1.95	1.76	1.63	1.46
19F1801	006	.06	130*				
19F1802	008	.08	135*				
19F1803	009	.09	140*				
19F1804	010	.10	145*				
19F1805	012	.12	150*				
19F1806	014	.14	100**				
19F1807	016	.16	100**				
19F1808	018	.18	105**				
19F1809	020	.20	115**				
19F1810	025	.25	135**				
19F1811	030	.30	140**				
19F1812	035	.35	105**				
19F1813	040	.40	105**				
19F1814	045	.45	105**				
19F1815	050	.50	115**				
19F1816	060	.60	115**				
19F1817	070	.70	120**				
19F1818	080	.80	125**				
19F1819	090	.90	130**				
19F1894	100	1.00	135**				
19F1895	150	1.50	170**	2.25	2.025	1.875	1.688
19F1896	200	2.00	180**	2.25	2.025	1.875	1.688

LF-2W SERIES—PRINTED CIRCUIT MOUNT

Stk. No.	Type LF-2W-	uh ±5%	Q min.	1-24	25-99	100-199	200-299
19F1820	005	.05	125*	1.89	1.70	1.58	1.42
19F1821	006	.06	130*				
19F1822	008	.08	135*				
19F1823	009	.09	140*				
19F1824	010	.10	145*				
19F1825	012	.12	150*				
19F1826	014	.14	100**				
19F1827	016	.16	100**				
19F1828	018	.18	105**				
19F1829	020	.20	115**				
19F1830	025	.25	135**				
19F1831	030	.30	140**				
19F1832	035	.35	105**				
19F1833	040	.40	105**				
19F1834	045	.45	105**				
19F1835	050	.50	115**				
19F1836	060	.60	115**				
19F1837	070	.70	120**				
19F1838	080	.80	125**				
19F1839	090	.90	130**				
19F1897	100	1.00	135**				
19F1898	100	1.00	170**	2.10	1.89	1.75	1.575
19F1899	200	2.00	180**	2.10	1.89	1.75	1.575

19F1448 Type 5284—Adjustment tool for above. EACH .85

NEWARK CAN SUPPLY ALL YOUR ELECTRONIC NEEDS!

PRECISION VARIABLE TRIMMERS JFD

Designed expressly to meet challenging needs of military quality electronics, for missiles, communications, telemetry, and test equipment. JFD trimmer capacitors meet or exceed applicable requirements of spec MIL-C-14409A. Feature: Compactness. Tuning Sensitivity—multi-turn adjustment. Tuning Linearity—no reversals. Stability. Anti-backlash design—smooth, uniform tuning adjustment. Low loss and Low Inductance for high frequency use. No de-rating up to 125°C for glass dielectric; 150°C for quartz dielectric. Shock and vibration resistant. Special alloy plating gives 50 hour salt spray resistance. High Q—Low Dissipation factor. Gold plating over special alloy for R.F. conductivity and freedom from silver migration.

MINIATURE SERIES

Features exclusive telescoping tuning assembly for miniaturization. Up to 50% savings in length for a given capacitance range. Mechanical stops at both ends of adjustment. Available in panel mounting and two types of printed circuit mountings, glass dielectric as well as the electrically superior quartz dielectric. Sizes: ¼" Dia. L—from 5/16-1⅝".

PANEL MOUNT SERIES

Stk. No.	Type	Cap. MMF Min.	Cap. MMF Max.	1-24	25-99	100-199	200-299
19F950	VC20G	.8	8.5	3.60	3.24	3.00	2.70
19F951	VC21G	.8	4.5	3.75	3.38	3.13	2.82
19F952	VC22G	.7	12.0	4.35	3.92	3.63	3.26
19F953	VC23G	.8	18.0	4.65	4.19	3.88	3.49
19F954	VC24G	1.0	30.0	5.25	4.73	4.38	3.94

PRINTED CIRCUIT BOARD SERIES

Stk. No.	Type	Cap. MMF Min.	Cap. MMF Max.	1-24	25-99	100-199	200-299
19F977	VC-9G	.8	8.5	3.15	2.84	2.63	2.36
19F979	VC-10G	.8	4.5	3.45	3.11	2.88	2.59
19F986	VC-31G	.8	12.0	4.05	3.65	3.38	3.04
19F987	VC-32G	.8	18.0	4.20	3.78	3.50	3.15
19F988	VC-43G	.8	30.0	4.80	4.32	4.00	3.60
19F978	VC-9GW	.8	8.5	3.15	2.84	2.63	2.36
19F980	VC-10GW	.8	4.5	3.45	3.11	2.88	2.59
19F895	VC-31GW	.8	12.0	4.05	3.65	3.38	3.04
19F896	VC-32GW	.8	18.0	4.20	3.78	3.50	3.15
19F897	VC-43GW	.8	30.0	4.80	4.32	4.00	3.60
19F1883	VC-42G	1.0	21.0	4.35	3.92	3.63	3.26
19F1884	VC-42GW	1.0	21.0	4.35	3.92	3.63	3.26

MQ QUARTZ

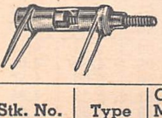
Stk. No.	Type	Cap. MMF Min.	Cap. MMF Max.	1-24	25-99	100-199	200-299
19F1400	MQ-101	.6	1.8	5.55	5.00	4.63	4.16
19F1401	MQ-103	.6	5.5	6.15	5.54	5.13	4.61
19F1402	MQ-106	.6	9.5	7.95	7.16	6.63	5.96
19F1403	MQ-109	.8	16.0	10.35	9.32	8.63	7.76
19F1404	MQ-111	.6	1.8	5.25	4.73	4.38	3.94
19F1405	MQ-113	.6	5.5	5.85	5.27	4.88	4.39
19F1406	MQ-116	.6	9.5	7.65	6.89	6.38	5.74
19F1407	MQ-119	.8	16.0	10.05	9.05	8.38	7.54
19F1408	MQ-121	.6	1.8	5.25	4.73	4.38	3.94
19F1409	MQ-123	.6	5.5	5.85	5.27	4.88	4.39
19F1410	MQ-126	.6	9.5	7.65	6.89	6.38	5.74
19F1411	MQ-129	.8	16.0	10.05	9.05	8.38	7.54

MAX-C TRIMMERS

Triples the range for a given size of the previously available piston trimmer capacitor. Features the exclusive JFD imbedded band technique. It combines the electrical advantages of a thin dielectric gap with the structural strength and ruggedness of a heavy wall tube. The electrode band has higher insulation resistance under adverse environmental conditions. Utilizes the proven SEALCAP construction, which completely seals the interior of the capacitor making it impervious to the effects of moisture and altitude. Wide range design makes it readily adaptable to tuner application. DCWV 1000. Available in panel and printed circuit mounting. Sizes: 5/16" Dia. Length from 29/64"-1 31/32".

Stk. No.	Type	Cap. MMF Min.	Cap. MMF Max.	1-24	25-99	100-199	200-299
19F1840	MC601	1	14	12.00	10.80	10.00	9.00
19F1841	MC603	1	28	12.45	11.21	10.38	9.34
19F1842	MC604	1	42	12.75	11.48	10.63	9.57
19F1843	MC606	1	60	13.65	12.29	11.38	10.24
19F1844	MC609	1	90	14.85	13.37	12.38	11.14
19F1845	MC611	1	14	12.00	10.80	10.00	9.00
19F1846	MC613	1	28	12.45	11.21	10.38	9.34
19F1847	MC614	1	42	12.75	11.48	10.63	9.57
19F1848	MC616	1	60	13.65	12.29	11.38	10.24
19F1849	MC619	1	90	14.85	13.37	12.38	11.14
19F1850	MC621	1	14	12.00	10.80	10.00	9.00
19F1851	MC623	1	28	12.45	11.21	10.38	9.34
19F1852	MC624	1	42	12.75	11.48	10.63	9.57
19F1853	MC626	1	60	13.65	12.29	11.38	10.24
19F1854	MC629	1	90	14.85	13.37	12.38	11.14

DIRECT TRAVERSE TRIMMERS



Designed for use in high quality commercial or instrument applications and communications equipment. Uses direct traverse mechanism with expanding self-aligning spring-clip piston.

Stk. No.	Type	Cap. Max.	Mmf. Min.	1-24	25-99	100-199	200-299
19F1449	VC52*	12.0	1.0	.99	.89	.83	.74
19F1450	VC53†	12.0	1.0	.99	.89	.83	.74

*Wired circuits. †Printed circuit.

TYPE SC SEALCAPS

Sealed interior prevents formation of moisture as well as increasing insulation resistance and dielectric strength. May be adjusted with standard .050 hex wrench without damage to seal. (*) Panel mount. (†) Printed circuit.

Stock No.	Type	Range mmf Min.	Range mmf Max.	Inches Dia.	Inches L.	1-24	25-99	100-199	200-299
19F1412	SC-131*	0.8	4.5	¼	13/32	4.95	4.46	4.13	3.71
19F1413	SC-133*	0.8	8.5	¼	21/32	4.80	4.32	4.00	3.60
19F1414	SC-134*	0.7	12.0	¼	⅞	5.40	4.86	4.50	4.05
19F1415	SC-136*	0.8	18.0	¼	13/32	5.85	5.27	4.88	4.39
19F1416	SC-139*	1.0	30.0	¼	1¾	6.60	5.94	5.50	4.95
19F1417	SC-141†	0.8	4.5	¼	0.616	4.95	4.46	4.13	3.71
19F1418	SC-143†	0.8	8.5	¼	0.866	4.80	4.32	4.00	3.60
19F1419	SC-144†	0.8	12.0	¼	1.053	5.40	4.86	4.50	4.05
19F1420	SC-146†	0.8	18.0	¼	1.303	5.85	5.27	4.88	4.39
19F1421	SC-149†	0.8	30.0	¼	1.928	6.60	5.94	5.50	4.95
19F1422	SC-151†	0.8	4.5	¼	0.616	4.95	4.45	4.13	3.71
19F1423	SC-153†	0.8	8.5	¼	0.866	4.80	4.32	4.00	3.60
19F1424	SC-154†	0.8	12.0	¼	1.053	5.40	4.86	4.50	4.05
19F1425	SC-156†	0.8	18.0	¼	1.303	5.85	5.26	4.88	4.39
19F1426	SC-159†	0.8	30.0	¼	1.928	6.60	5.94	5.50	4.95
19F1855	QS-171*	0.6	1.8	¼	13/32	7.65	6.89	6.38	5.74
19F1856	QS-173*	0.6	5.5	¼	21/32	8.25	7.43	6.88	6.19
19F1857	QS-176*	0.6	9.5	¼	13/32	10.05	9.05	8.38	7.54
19F1858	QS-179*	0.8	16.0	¼	1¾	12.45	11.21	10.38	9.34
19F1859	QS-181†	0.6	1.8	¼	0.616	7.20	6.48	6.00	5.40
19F1860	QS-183†	0.6	5.5	¼	0.866	7.80	7.02	6.50	5.85
19F1861	QS-186†	0.6	9.5	¼	1.303	9.60	8.64	8.00	7.20
19F1862	QS-189†	0.8	16.0	¼	1.928	12.00	10.80	10.00	9.00
19F1863	QS-191†	0.6	1.8	¼	0.616	7.20	6.48	6.00	5.40
19F1864	QS-193†	0.6	5.5	¼	0.866	7.80	7.02	6.50	5.85
19F1865	QS-196†	0.6	9.5	¼	1.303	9.60	8.64	8.00	7.20
19F1866	QS-199†	0.8	16.0	¼	1.928	12.00	10.80	10.00	9.00

STANDARD PANEL MOUNT SERIES

JFD Precision quartz or glass dielectric capacitor for all panel mount purposes. *Available with zero temperature coefficient in quartz and invar construction. Sizes: ¼"-5/16" Dia. Length 2" approx.

Stock No.	Type VC-	Cap. MMF Min.	Cap. MMF Max.	1-24	25-99	100-199	200-299
19F961	2*	.7	4.5	4.35	3.92	3.63	3.26
19F970	5*	.6	6	5.25	4.73	4.38	3.94
19F971	11*	.8	10	6.00	5.40	5.00	4.50
19F972	12*	9	21	7.95	7.16	6.63	5.96
19F973	1G	.7	9	2.55	2.30	2.13	1.92
19F974	3G	.7	9	2.25	2.03	1.88	1.69
19F1868	3GI	.7	9	2.40	2.16	2.00	1.80
19F975	4G	.8	18	2.55	2.30	2.13	1.92
19F963	5G	.8	18	3.00	2.70	2.50	2.25
19F964	6GA	.7	17	2.40	2.16	2.00	1.80
19F965	6GC	.8	17	2.55	2.30	2.13	1.92
19F1867	6GI	.8	17	2.55	2.30	2.13	1.92
19F966	7G	2	30	3.00	2.70	2.50	2.25
19F981	11G	.6	14	2.85	2.57	2.38	2.14
19F967	11GRA	.6	14	2.55	2.30	2.13	1.92
19F968	11GRB	.6	14	2.40	2.16	2.00	1.80
19F969	11GRC	.6	18	2.55	2.30	2.13	1.92
19F982	13GB	.8	13	1.65	1.49	1.38	1.24
19F983	30G	.8	30	3.45	3.11	2.88	2.59
19F985	50C†	5	50	1.95	1.76	1.63	1.46

† Ceramic

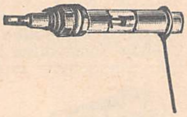
SPLIT BUSHING PRINTED CIRCUIT SERIES

Stock No.	Type VC	Cap. Min.	MMF Max.	1-24	25-99	100-199	200-299
19F1885	801GW	.8	4.5	2.55	2.30	2.13	1.92
19F1886	803GW	.8	8.5	2.40	2.16	2.00	1.80
19F1887	804GW	.8	12.0	2.40	2.16	2.00	1.80
19F1888	806GW	.8	18.0	2.85	2.57	2.38	2.14
19F1889	809GW	.8	30.0	3.15	2.84	2.63	2.36
19F1890	811QW	.6	1.8	4.20	3.78	3.50	3.15
19F1891	813QW	.6	5.0	4.95	4.46	4.13	3.71
19F1892	816QW	.6	9.5	5.85	5.27	4.88	4.39
19F1893	819QW	.6	16.0	7.95	7.16	6.63	5.96

JFD PRECISION VARIABLE CAPACITORS

NEWARK CARRIES
COMPLETE LINES

PIN-TRIM SERIES



Features sub-miniature design with very high sensitivity. It delivers more capacitance per cubic inch than any other conventional variable piston capacitor plus the advantages of premium reliability and unique adaptability. Special adjustment provides 102 turns per inch. Ultra linear tuning assures absolute repeatability. Low inductance for high frequency use with Q factor of 500. Operating temperature —55°C to +125°C. Working voltage 500 V DC. Insulation resistance 10 megohms. Meets MIL-C-14409A Specifications. Overall diameter: ⅛". Length above panel: 35/64" to 1 1/64". Shpg. wt., 5 oz.

Panel Mounting Models

Stock No.	Type PT-	Cap. MMF Min.	Cap. MMF Max.	1-24	25-99	100-199	200-299
19F1875	901	0.5	2.0	2.55	2.295	2.125	1.915
19F1876	902	0.5	3.0	2.85	2.565	2.375	2.138
19F1877	903	0.5	5.0	3.00	2.70	2.50	2.25
19F1878	904	0.5	7.0	3.15	2.835	2.625	2.363

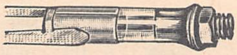
Printed Circuit Models

Stock No.	Type PT.	Cap. MMF Min.	Cap. MMF Max.	1-24	25-99	100-199	200-299
19F1879	911	0.5	2.0	2.55	2.295	2.125	1.915
19F1880	912	0.5	3.0	2.85	2.565	2.375	2.138
19F1881	913	0.5	5.0	3.00	2.70	2.50	2.25
19F1882	914	0.5	7.0	3.15	2.835	2.625	2.363

PC CAPACITOR SERIES

Stock No.	Type PC-	Cap. MMF Min.	Cap. MMF Max.	1-24	25-99	100-199	200-299
19F1900	35H030	.5	3.0	3.75	3.38	3.13	2.81
19F1901	35H080	1.0	8.0	4.20	3.78	3.50	3.15
19F1902	35H160	1.0	16.0	4.65	4.19	3.88	3.49
19F1903	35H300	1.0	30.0	4.95	4.46	4.13	3.73

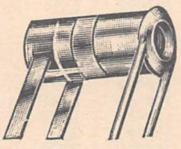
SPLIT STATOR PANEL MOUNT SERIES



Designed for application in push-pull R.F. circuits and similar applications. This balanced electrode construction is available in quartz and invar for zero temperature coefficient (VC-80, VC-81, VC-82 and VC-83 types). The VC-16G, VC-17G and VC-18G group are glass di-electric. JFD quality construction throughout. Wt., 5 oz.

Stk. No.	VC Model	Range MMF Plate to Bushing Min.	Range MMF Plate to Bushing Max.	Range MMF Plate to Plate Min.	Range MMF Plate to Plate Max.	NET 1-24	NET 25-99	NET 100-199	NET 200-299
19F984	16G	0.5	5.0	0.8	2.5	3.15	2.84	2.63	2.36
19F955	17G	0.6	8.5	1.1	4.5	3.60	3.24	3.00	2.70
19F956	18G	0.7	14.0	1.8	7.5	4.05	3.64	3.38	3.04
19F957	80	0.4	1.5	0.5	0.8	5.25	4.73	4.38	3.94
19F958	81	0.55	2.8	0.75	1.3	6.00	5.40	5.00	4.50
19F959	82	0.65	5.0	0.95	2.5	6.75	6.08	5.63	5.07
19F960	83	5.3	10.5	3.5	5.5	8.80	7.97	7.38	6.64

MINIATURE SPLIT STATOR SERIES



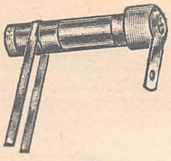
Designed for application in push-pull radio frequency circuit and similar networks. The annular electrode band or stator, is split into 2 equal area plates. Telescoping adjust mechanism allows continuous capacitor tuning with negligible change in size. Meets the requirements of MIL-C-14409A. Positive mechanical stops at both ends of adjustment range. Low expansion invar allows wide operating temperature range of —55°C to +125°C. Working voltage 750 V DC. Insulation resistance 10 megohms. Overall diameter ¼". Shpg. wt., 5 oz.

Stock No.	Type SP-	Cap. MMF Min.	Cap. MMF Max.	1-24	25-99	100-199	200-299
19F1904	86G*	.8	4.2	4.20	3.78	3.50	3.15
19F1905	87G*	.8	9.0	5.25	4.73	4.38	3.94
19F1906	88G*	1.0	14.0	5.85	5.27	4.88	4.39
19F1907	206G†	.8	4.2	3.75	3.38	3.13	2.81
19F1908	207G†	.8	9.0	4.80	4.32	4.00	3.60
19F1909	208G†	1.0	14.0	5.40	4.86	4.50	4.05
19F1910	216G†	.8	4.2	3.75	3.38	3.13	2.81
19F1911	217G†	.8	9.0	4.80	4.32	4.00	3.60
19F1912	218G†	1.0	14.0	5.40	4.86	4.50	4.05

*Panel Mount.

†Printed Circuit Mount.

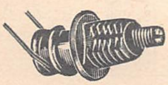
SPLIT STATOR SEALCAP SERIES



Miniaturized split stator capacitors for application in push-pull radio frequency circuits and similar networks, where physical size limitations are critical. Stator is split into 2 equal area plates. Capacitance varies from each plate to bushing as well as from plate to plate. The telescoping adjust mechanism allows the capacitor to be tuned through its entire range with negligible change in size. Trimmer has "sealed in construction" to prevent moisture from reaching the interior. Adjusted by means of .050 hex wrench. Meets requirements of MIL-C-14409A. Panel mount assembly. *Lug mount. †Printed circuit mount. Shpg. wt., 5 oz.

Stock No.	SPS Model	Cap. MMF Plate to Bushing Min.	Cap. MMF Plate to Bushing Max.	Cap. MMF Plate to Plate Min.	Cap. MMF Plate to Plate Max.	NET 1-24	NET 25-99	NET 100-199	NET 200-299
19F1439	226G	.8	4.2	.8	2.0	5.40	4.86	4.50	4.05
19F1440	236G*	.8	4.2	.8	2.0	5.40	4.86	4.50	4.05
19F1441	246G†	.8	4.2	.8	2.0	5.40	4.86	4.50	4.05
19F1442	227G	.8	9.0	1.5	4.5	6.45	5.80	5.38	4.84
19F1443	237G*	.8	9.0	1.5	4.5	6.45	5.80	5.38	4.84
19F1444	247G†	.8	9.0	1.5	4.5	6.45	5.80	5.38	4.84
19F1445	228G	1.0	14	2.0	7.0	7.20	6.48	6.00	5.40
19F1446	238G*	1.0	14	2.0	7.0	7.20	6.48	6.00	5.40
19F1447	248G†	1.0	14	2.0	7.0	7.20	6.48	6.00	5.40

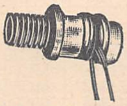
DIFFERENTIAL SERIES



Meets the requirements of MIL-C-14409A. Positive mechanical stops at both ends. Low expansion invar allows wide operating temperature range of —55°C to +125°C. Tuning is both linear and sensitive. As cap. in one gang increases, cap. in the other gang decreases. Working voltage 500 V DC. Insulation resistance 104 megohms. Overall diameter ¼". Wt., 5 oz.

Stock No.	Type DC-	Cap. MMF Min.	Cap. MMF Max.	1-24	25-99	100-199	200-299
19F1913	401**	0.7	3.0	3.45	3.11	2.88	2.59
19F1914	403**	0.8	8.0	3.45	3.11	2.88	2.59
19F1915	404**	0.8	12.0	3.60	3.24	3.00	2.70
19F1916	406**	0.9	16.0	3.75	3.38	3.13	2.82
19F1917	409**	1.5	28.0	4.05	3.65	3.38	3.04
19F1918	411*	0.7	3.0	4.35	3.92	3.63	3.26
19F1919	413*	0.8	8.0	4.20	3.78	3.50	3.15
19F1920	414*	0.8	12.0	4.95	4.46	4.13	3.72
19F1921	416*	0.9	16.0	5.25	4.73	4.38	3.94
19F1922	419*	1.5	28.0	5.85	5.27	4.88	4.39
19F1923	421	0.7	3.0	4.05	3.65	3.38	3.04
19F1924	423	0.8	8.0	3.75	3.38	3.13	2.82
19F1925	424	0.8	12.0	4.65	4.19	3.88	3.49
19F1926	426	0.9	16.0	4.80	4.32	4.00	3.60
19F1927	429	1.5	28.0	5.40	4.86	4.50	4.05
19F1928	431	0.7	3.0	4.05	3.65	3.38	3.04
19F1929	433	0.8	8.0	3.75	3.38	3.13	2.81
19F1930	434	0.8	12.0	4.65	4.19	3.88	3.49
19F1931	436	0.9	16.0	4.80	4.32	4.00	3.60
19F1932	439	1.5	28.0	5.40	4.86	4.50	4.05

DIFFERENTIAL SEALCAP SERIES



Meets the requirements of MIL-C-14409A. Sealed interior construction. Low expansion invar allows wide operating temperature range of —55°C to +125°C. As cap. in one gang increases, cap. in the other gang decreases. Tuning is both linear and extremely sensitive. Working voltage 500 V DC. Insulation resistance 104 megohms. Overall diameter ¼". Shpg. wt., 5 oz.

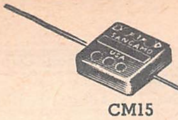
Stock No.	Type DS-	Cap. MMF Min.	Cap. MMF Max.	1-24	25-99	100-199	200-299
19F1933	441**	0.7	3.0	5.55	5.00	4.63	4.16
19F1934	443*	0.8	8.0	5.40	4.86	4.50	4.05
19F1935	444*	0.8	12.0	6.00	5.40	5.00	4.50
19F1936	446*	0.9	16.0	6.45	5.81	5.38	4.84
19F1937	449*	1.5	28.0	7.20	6.48	6.00	5.40
19F1938	451†	0.7	3.0	5.55	5.00	4.63	4.16
19F1939	453†	0.8	8.0	5.40	4.86	4.50	4.05
19F1940	454†	0.8	12.0	6.00	5.40	5.00	4.50
19F1941	456†	0.9	16.0	6.45	5.81	5.38	4.84
19F1942	459†	1.5	28.0	7.20	6.48	6.00	5.40
19F1943	461†	0.7	3.0	5.55	5.00	4.63	4.16
19F1944	463†	0.8	8.0	5.40	4.86	4.50	4.05
19F1945	464†	0.8	12.0	6.00	5.40	5.00	4.50
19F1946	466†	0.9	16.0	6.45	5.81	5.38	4.84
19F1947	469†	1.5	28.0	7.20	6.48	6.00	5.40

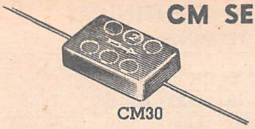
**Standard Panel Mount. *Miniature Panel Mount.

†Printed Circuit Mounts.

CAPACITORS

CM SERIES SILVER MICA CAPACITORS


CM15


CM30

These units are built in accordance with MIL-C-5B specifications, and are suitable for operation at temperatures from —55°C to +85°C, vibration conditions of 10 to 2000 cycles per second. Especially adapted for use in electronic circuits where frequency stability and minimum losses must be maintained.

CM	15	E	131	J	N	3
Component	Case	Characteristic	Capacitance (130 mmf.)	Tolerance	Temp. Range	Vibration Grade

CASE DIMENSIONS

CM15	33/64 x 19/64 x 3/16
CM20	47/64 x 7/16 x 3/16
CM30	51/64 x 51/64 x 1/4
CM35	51/64 x 51/64 x 5/16

CM15 (33/64 x 19/64 x 3/16)

Stk. No.	Type	Mmf	DC Volt	1-49	50-99	100-299	300-499	500-up
17F700	CM15B100KO3	10	500	.13	.08	.051	.047	.043
17F701	CM15B120KO3	12	500					
17F702	CM15B150KO3	15	500					
17F703	CM15B180KO3	18	500					
17F704	CM15C200JO3	20	500	.14	.08	.057	.052	.048
17F705	CM15C220JO3	22	500					
17F706	CM15C240JO3	24	500					
17F707	CM15C270JO3	27	500					
17F708	CM15C300JO3	30	500					
17F709	CM15C330JO3	33	500					
17F710	*CM15C360JO3	36	500					
17F712	CM15C430JO3	43	500					
17F713	CM15C470JO3	47	500					
17F714	CM15C510JO3	51	500					
17F715	CM15C560JO3	56	500					
17F716	CM15C620JO3	62	500					
17F717	CM15C680JO3	68	500	.16	.09	.062	.057	.052
17F718	CM15C750JO3	75	500	.16	.09	.062	.057	.052

Stk. No.	Type	Mmf	DC Volt	1-49	50-99	100-299	300-499	500-up
17F719	CM15C820JO3	82	500	.17	.10	.067	.061	.056
17F720	CM15C910JO3	91	500	.17	.10	.067	.061	.056
17F721	CM15C101JO3	100	500	.17	.10	.067	.061	.056
17F722	CM15C111JO3	110	500	.18	.10	.072	.066	.060
17F723	CM15C121JO3	120	500	.18	.10	.072	.066	.060
17F724	CM15C131JO3	130	500	.19	.11	.076	.070	.064
17F725	CM15E151JO3	150	500	.19	.11	.076	.070	.064
17F726	CM15E161JO3	160	500	.20	.12	.081	.074	.068
17F727	CM15E181JO3	180	500	.22	.13	.086	.079	.072
17F728	CM15E201JO3	200	500	.22	.13	.086	.079	.072
17F729	CM15E221JO3	220	500	.23	.13	.091	.083	.076
17F730	CM15E241JO3	240	500	.24	.14	.096	.088	.080
17F731	CM15E271JO3	270	500	.25	.15	.101	.092	.084
17F732	CM15E301JO3	300	500	.26	.15	.106	.097	.088
17F733	CM15E331JO3	330	500	.29	.17	.115	.106	.096
17F734	CM15E361JO3	360	500	.30	.18	.120	.110	.100
17F735	CM15E391JO3	390	500	.31	.18	.125	.114	.104
17F711	*CM15E390JO3	39	500	.14	.08	.057	.052	.048

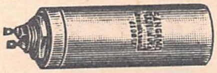
CM30 (51/64 x 51/64 x 1/4)

17F745	CM30E102JN3	1000	500	.35	.20	.139	.128	.116
17F746	CM30E112JN3	1100	500	.35	.20	.139	.128	.116
17F747	CM30E122JN3	1200	500	.40	.23	.159	.145	.132
17F748	CM30E132JN3	1300	500	.40	.23	.159	.145	.132
17F749	CM30E152JN3	1500	500	.44	.26	.176	.162	.147
17F750	CM30E162JN3	1600	500	.44	.26	.176	.162	.147
17F751	CM30E182JN3	1800	500	.49	.28	.195	.178	.162
17F752	CM30E202JN3	2000	500	.49	.28	.195	.178	.162
17F753	CM30E222JN3	2200	500	.54	.31	.214	.196	.178
17F754	CM30E242JN3	2400	500	.58	.34	.233	.214	.193
17F755	CM30E272JN3	2700	500	.63	.36	.249	.229	.208
17F756	CM30E302JN3	3000	500	.67	.39	.269	.246	.224
17F757	CM30E332JUN3	3300	500	.72	.42	.287	.263	.239

CM35 (51/64 x 51/64 x 5/16)

17F758	CM35E362JN3	3600	500	.77	.45	.305	.280	.255
17F759	CM35E392JN3	3900	500	.81	.47	.324	.297	.270
17F760	CM35E432JN3	4300	500	.91	.53	.361	.330	.301
17F761	CM35E472JN3	4700	500	.95	.56	.379	.348	.316
17F762	CM35E512JN3	5100	500	1.00	.58	.397	.364	.331
17F763	CM35E562JN3	5600	500	1.09	.63	.435	.398	.362
17F764	CM35E622JN3	6200	500	1.18	.69	.472	.433	.393
17F765	CM35E682JN3	6800	300	1.23	.72	.490	.449	.408
17F766	CM35E752JN3	7500	300	1.32	.75	.515	.472	.439
17F767	CM35E822JN3	8200	300	1.41	.82	.565	.520	.470
17F768	CM35E912JN3	9100	300	1.55	.90	.620	.570	.517
17F769	CM35E103JN3	10000	300	1.69	.99	.675	.620	.562

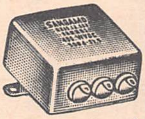
CP SERIES CAPACITORS



These units are built in accordance with Mil-C-25C, and are impregnated with diaclor to provide an "F" characteristic (—55°C to +85°C, 30% capacitance change at low temperature). Vibration conditions of 10 to 55 cycles per second. Ideal for use in high voltage filter applications.

CP41

Stk. No.	Type	Mfd.	DC Volt	Size L x D	Net Each 1-9	10-99	100-999
17F770	CP41B1FF205K1	2.0	600	2⅞x1½	4.05	1.83	1.60
17F771	CP41B1FF405K1	4.0	600	4½x1½	5.23	2.37	2.10
17F772	CP41B1FG105K1	1.0	1000	2⅞x1½	3.64	1.83	1.60
17F773	CP41B1FG205K1	2.0	1000	4½x1½	4.64	2.14	1.88
17F774	CP41B1FH254K1	.25	1500	2x1½	4.28	2.39	2.01
17F775	CP41B1FH504K1	.5	1500	2⅜x1½	4.59	2.51	2.05

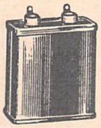


Type CP53 cap. are primarily intended for bypass applications. They are non-inductively wound, supplied in fractional cap. values, and will provide continuous operation in coupling and bypass circuits. All units are designed in accordance with Mil-C-25C, "E" characteristic (—55°C to +85°C, 5% cap. change at low temperature). Vibration conditions of 10 to 55 cycles per second.

CP53

Stk. No.	Type	Mfd.	DC Volt	Size L x W x H	Net Each 1-9	10-24	25-49	50-99	100-up
17F776	CP53B1EF503K1	.05	600	1 13/16x1x¾	1.68	1.14	.97	.71	.63
17F777	CP53B1EF104K1	.1	600	1 13/16x1x¾	1.80	1.22	1.04	.76	.68
17F778	CP53B1EF254K1	.25	600	1 13/16x1x¾	1.83	1.24	1.05	.77	.69
17F779	CP53B1EF504K1	.5	600	1 13/16x1x1	1.95	1.32	1.12	.82	.74
17F780	CP53B1EF105K1	1.0	600	2x1¾x1	2.31	1.56	1.33	.97	.87
17F781	CP53B1EF205K1	2.0	600	2x2x1⅛	3.00	2.03	1.72	1.26	1.13
17F782	CP53B4EF105V1	2x1.0	600	2x2x1⅛	3.42	2.32	1.96	1.44	1.29
17F783	CP53B5EF104V1	3x .1	600	1 13/16x1x⅞	2.73	1.85	1.57	1.15	1.03
17F784	CP53B1EG104K1	.1	1000	1 13/16x1x¾	1.83	1.24	1.05	.77	.69
17F785	CP53B1EG254K1	.25	1000	1 13/16x1x⅞	1.89	1.28	1.09	.79	.71
17F786	CP53B1EG504K1	.5	1000	2x1¾x⅞	2.07	1.40	1.19	.87	.78
17F787	CP53B1EG105K1	1.0	1000	2x2x1⅛	2.76	1.87	1.58	1.16	1.04

CP70



Excellent for medium and high voltage circuits where light weight per unit volume is an important factor. All units are designed in accordance with Mil-C-25C, characteristic "E" (—55°C to +85°C, 5% capacitance change at low temperature). Vibration conditions of 10 to 55 cycles per second.

TYPE B SOLDER LUG TERMINAL

Stk. No.	Type	Mfd.	DC Volt	Size H x W x L	Net Each 1-9	10-24	25-49	50-99	100-499	Type	Stk. No.	Per Pair With Cap*	Without Cap** 1-9 pr.	10 pr.
17F788	CP70B1EF205K1	2.0	600	3¼x1 13/16x1 1/16	3.14	1.57	1.40	1.36	1.33	CP07SA4	17F860	.23	.51	.46
17F789	CP70B1EF405K1	4.0	600	3⅞x2½x1 3/16	4.39	2.20	1.94	1.89	1.83	CP07SB4	17F861	.23	.51	.46
17F790	CP70B1EF106K1	10.0	600	4x3¾x1¾	6.99	3.49	3.21	3.15	3.09	CP07SD3	17F862	.33	.51	.46
17F791	CP70B1EG205K1	2.0	1000	4¾x1 13/16x1 1/16	3.60	1.80	1.64	1.61	1.57	CP07SA6	17F863	.23	.51	.46
17F792	CP70B1EG405K1	4.0	1000	3⅞x3¾x1¼	4.98	2.48	2.23	2.17	2.12	CP07SC2	17F864	.30	.51	.46
17F793	CP70B1EH205K1	2.0	1500	4¾x2½x1 3/16	4.40	2.20	2.01	1.97	1.93	CP07SB6	17F865	.23	.51	.46
17F794	CP70B1EH405K1	4.0	1500	4¼x3¾x1¾	6.54	3.27	2.99	2.93	2.86	CP07SD4	17F866	.33	.51	.46

**Price per pair when purchased without capacitor *Price per pair when purchased with capacitor

TYPE CP70 CONTINUED ON NEXT PAGE

CP SERIES TYPE 70 CONTINUED

TYPE E PILLAR TERMINAL

Stk. No.	Type	Mfd.	DC Volt	Size HxWxL	NET EACH 1-9	10-24	25-49	50-99	100-499	Type	Stk. No.	Per Pair With Cap.*	Without Cap.** 1-9 pr.	10 pr.
17F795	CP70E1EF105K1	1.0	600	2¼x1¹³⁄₁₆x1¹⁄₁₆	2.83	1.40	1.31	1.29	1.16	CPO7SA2	17F867	.23	.51	.46
17F796	CP70E1EF205K1	2.0	600	3¼x1¹³⁄₁₆x1¹⁄₁₆	3.42	1.71	1.54	1.50	1.47	CPO7SA4	17F860	.23		
17F797	CP70E1EF405K1	4.0	600	3⅞x2½x1³⁄₁₆	4.67	2.33	2.08	2.03	1.98	CPO7SB4	17F861	.30		
17F798	CP70E1EF605K1	6.0	600	3⅞x3¾x1¼	5.50	2.75	2.47	2.41	2.35	CPO7SC2	17F864	.30		
17F799	CP70E1EF805K1	8.0	600	4¼x3¾x1¼	6.77	3.37	3.04	2.96	2.89	CPO7SC3	17F868	.33		
17F800	CP70E1EF106K1	10.0	600	4x3¾x1¾	7.29	3.63	3.35	3.29	3.23	CPO7SD3	17F862	.23	.51	.46
17F801	CP70E1EG254K1	.25	1000	2¼x1¹³⁄₁₆x1¹⁄₁₆	2.74	1.43	1.28	1.25	1.22	CPO7SA2	17F867			
17F802	CP70E1EG105K1	1.0	1000	2⅞x1¹³⁄₁₆x1¹⁄₁₆	3.06	1.52	1.39	1.37	1.34	CPO7SA3	17F869			
17F803	CP70E1EG106K1	10.0	1000	4¾x3¾x2¼	8.73	4.36	4.03	3.96	3.89	CPO7SE5	17F870			
17F804	CP70E1EH254K1	.25	1500	2⅞x1¹³⁄₁₆x1¹⁄₁₆	3.33	1.49	1.37	1.34	1.31	CPO7SA3	17F868			
17F805	CP70E1EH504K1	.5	1500	2⅞x1¹³⁄₁₆x1¹⁄₁₆	3.43	1.58	1.47	1.44	1.32	CPO7SA3	17F868	.23	.51	.46
17F806	CP70E1EH105K1	1.0	1500	4¾x1¹³⁄₁₆x1¹⁄₁₆	3.68	1.84	1.68	1.65	1.61	CPO7SA6	17F863			
17F807	CP70E1EJ104K1	.1	2000	2½x2½x1³⁄₁₆	3.99	1.89	1.74	1.71	1.68	CPO7SB1	17F871			
17F808	CP70E1EJ105K1	1.0	2000	4¾x2½x1³⁄₁₆	5.04	2.75	2.64	2.38	2.14	CPO7SB6	17F865			

*Price per pair with capacitor
**Price per pair without capacitor

CP90

These units are non-inductively wound paper capacitors, hermetically sealed in drawn metal cans. Built in accordance with MIL-C-25C, vibration conditions of 10 to 55 cycles per second. Bracket for capacitors are listed opposite them.

Stk. No.	Type	Cap.	Volt	Size LxWxH	NET EACH 1-9	10-24	25-49	50-99	Stk. No.	Spade Brackets With Cap.	Per* Pair
17F809	CP90B1KE104K1	.1	400	1⁵⁄₁₆x⅝x1¹⁄₁₆	1.91	1.27	1.08	.79	17F878	CPO91SB1	.30
17F810	CP90B1KE254K1	.25	400	1⁵⁄₁₆x⅝x1⅜	1.97	1.31	1.12	.82	17F879	CPO91SB2	
17F811	CP90B1KE504K1	.5	400	1⁵⁄₁₆x⅝x2	2.03	1.35	1.15	.84	17F880	CPO91SB4	
17F812	CP90B1KE105K1	1.0	400	1⁵⁄₁₆x⅝x2¾	2.29	1.53	1.30	.96	17F881	CPO91SB6	
17F813	CP90B6EE504V1	2x.5	400	1⁵⁄₁₆x⅝x2½	2.77	1.85	1.57	1.16	17F882	CPO91SB5	
17F814	CP90B1EF504K1	.5	600	1⁵⁄₁₆x⅝x2	2.08	1.38	1.18	.87	17F880	CPO91SB4	
17F815	CP90B1EF105K1	1.0	600	1⁵⁄₁₆x⅝x2¾	2.34	1.56	1.33	.98	17F881	CPO91SB6	
17F816	CP90B6FF104V1	2x.1	600	1⁵⁄₁₆x⅝x1⅜	2.25	1.50	1.28	.94	17F879	CPO91SB2	
17F817	CP90B6FF504V1	2x.5	600	1⁵⁄₁₆x⅝x2½	2.83	1.89	1.60	1.18	17F882	CPO91SB5	
17F818	CP90B1FG504K1	.5	1000	1⁵⁄₁₆x⅝x2½	2.25	1.50	1.28	.94	17F882	CPO91SB5	

*Price when purchased with capacitor

SERIES CPO CAPACITORS

Series CPO4 and CPO5 are subminiature paper capacitors using tab construction. Series CPO8 and CPO9 are subminiature paper capacitors utilizing extended foil construction. All CPO series capacitors are encased in brass tubular cases and are designed and engineered to conform to the requirements of ML-C-25C. Hermetic sealing is accomplished by glass-to-metal terminals. Approximate shipping weight is 2 oz.

CPO4 10% tolerance characteristic K-125°C

Stock No.	Mil	Mfd	Volt	Case Size	1-9	10-24	25-49	50-99	100-499	500-999
17F824	CPO4A1KF332K3	.0033	600	.235x¾	1.72	1.29	.97	.64	.52	.49
17F644	CPO4A1KE103K3	.01	400	.235x¾	1.72	1.29	.97	.64	.52	.49
17F825	CPO4A1KF223K3	.022	600	.312x⅞	1.80	1.35	1.02	.68	.54	.51
17F826	CPO4A1KC223K3	.022	200	.235x¾	1.65	1.24	.93	.62	.50	.47
17F827	CPO4A1KE473K3	.047	400	.400x⅞	1.85	1.39	1.04	.69	.55	.52
17F828	CPO4A1KC683K3	.068	200	.312x⅞	1.76	1.32	.99	.66	.53	.50
17F829	CPO4A1KC104K3	.1	200	.400x⅞	1.80	1.35	1.02	.68	.54	.51
17F830	CPO4A1KB104K3	.1	100	.312x⅞	1.76	1.32	.99	.66	.53	.50
17F831	CPO4A1KB224K3	.22	100	.400x1⅛	1.85	1.39	1.04	.69	.55	.52
17F832	CPO4A1KC474K3	.47	200	.562x1⅜	2.29	1.72	1.29	.86	.69	.65
17F833	CPO4A1KB474K3	.47	100	.562x1⅛	2.24	1.68	1.26	.84	.67	.62
17F643	CPO4A1EE103K3	.01	400	.235x¾	1.54	1.16	.87	.58	.46	.43
17F834	CPO4A1EE473K3	.047	400	.400x⅞	1.69	1.27	.95	.64	.51	.48
17F646	CPO4A1EB104K3	.1	100	.312x⅞	1.63	1.22	.92	.66	.49	.45
17F835	CPO4A1EB224K3	.22	100	.400x1⅛	1.80	1.35	1.02	.68	.54	.50

CPO5

Stock No.	Mil	Mfd	Volt	Case Size	1-9	10-24	25-49	50-99	100-499	500-999
17F649	CPO5A1EF102K3	.001	600	.298x1³⁄₁₆	1.63	1.22	.92	.61	.49	.46
17F650	CPO5A1EF152K3	.0015	600	.298x1³⁄₁₆	1.63	1.22	.92	.61	.49	.46
17F651	CPO5A1EF222K3	.0022	600	.298x1³⁄₁₆	1.63	1.22	.92	.61	.49	.46
17F652	CPO5A1EF332K3	.0033	600	.298x1³⁄₁₆	1.63	1.22	.92	.61	.49	.46
17F657	CPO5A1EF103K3	.01	600	.375x1⁵⁄₁₆	1.65	1.24	.93	.62	.49	.46
17F655	CPO5A1EE103K3	.01	400	.298x1³⁄₁₆	1.60	1.20	.90	.60	.48	.45
17F660	CPO5A1EC223K3	.022	200	.298x1³⁄₁₆	1.71	1.29	.96	.64	.51	.46
17F664	CPO5A1EB333K3	.033	100	.298x1³⁄₁₆	1.65	1.24	.93	.62	.49	.46
17F672	CPO5A1EF473K3	.047	600	.463x1³⁄₁₆	1.79	1.34	1.01	.67	.54	.51
17F670	CPO5A1EE473K3	.047	400	.463x1⁵⁄₁₆	1.77	1.33	.99	.66	.53	.50
17F668	CPO5A1EC473K3	.047	200	.375x1⁵⁄₁₆	1.54	1.56	.87	.58	.46	.43
17F681	CPO5A1EF104K3	.1	600	.625x1³⁄₁₆	2.03	1.52	1.14	.76	.61	.58
17F678	CPO5A1EE104K3	.1	400	.463x1⁷⁄₁₆	1.96	1.47	1.11	.74	.59	.55
17F676	CPO5A1EC104K3	.1	200	.463x1⁵⁄₁₆	1.72	1.29	.97	.65	.52	.49
17F674	CPO5A1EB104K3	.1	100	.375x1⁵⁄₁₆	1.69	1.27	.95	.64	.51	.48
17F690	CPO5A1EF224K3	.22	600	.625x1¹⁵⁄₁₆	2.34	1.76	1.32	.88	.70	.65
17F688	CPO5A1EE224K3	.22	400	.625x1⁷⁄₁₆	2.24	1.68	1.27	.85	.67	.62
17F684	CPO5A1EB224K3	.22	100	.463x1³⁄₁₆	1.85	1.39	1.05	.69	.55	.51
17F692	CPO5A1EB334K3	.33	100	.463x1⁷⁄₁₆	1.90	1.42	1.07	.72	.56	.52
17F517	CPO5A1EE474K3	.47	400	.733x1¹⁵⁄₁₆	2.60	1.95	1.46	.98	.78	.72
17F698	CPO5A1EC474K3	.47	200	.625x1⁷⁄₁₆	2.24	1.68	1.27	.85	.67	.62
17F696	CPO5A1EB474K3	.47	100	.625x1³⁄₁₆	2.07	1.55	1.17	.78	.62	.57
17F530	CPO5A1EE105K3	1.0	400	1.063x1¹⁵⁄₁₆	3.12	2.34	1.76	1.18	.94	.86
17F528	CPO5A1EC105K3	1.0	200	.733x1¹⁵⁄₁₆	2.60	1.94	1.46	.98	.78	.72
17F836	CPO5A1KF102K3	.001	600	.298x1³⁄₁₆	1.74	1.31	.98	.65	.52	.49
17F245	CPO5A1KF222K3	.0022	600	.298x1³⁄₁₆	1.74	1.31	.98	.65	.52	.49
17F837	CPO5A1KF332K3	.0033	600	.298x1³⁄₁₆	1.78	1.34	1.01	.67	.54	.51
17F838	CPO5A1KF472K3	.0047	600	.298x1³⁄₁₆	1.78	1.34	1.01	.67	.54	.51
17F658	CPO5A1KF103K3	.01	600	.375x1⁵⁄₁₆	1.84	1.38	1.04	.69	.55	.52
17F656	CPO5A1KE103K3	.01	400	.298x1³⁄₁₆	1.80	1.35	1.01	.67	.54	.51

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CP SERIES CONTINUED

CPO5

Stock No.	Mil	Mfd	Volt	Case Size	1-9	10-24	25-49	50-99	100-499	500-999
17F839	CPO5A1KC153K3	.015	200	.298x1³⁄₁₆	1.72	1.29	.97	.65	.52	.49
17F661	CPO5A1KC223K3	.022	200	.298x1³⁄₁₆	1.72	1.29	.97	.65	.52	.49
17F667	CPO5A1KE333K3	.033	400	.375x1⁵⁄₁₆	1.86	1.40	1.05	.70	.56	.53
17F665	CPO5A1KB333K3	.033	100	.298x1³⁄₁₆	1.85	1.39	1.05	.69	.55	.53
17F671	CPO5A1KE473K3	.047	400	.463x1⁵⁄₁₆	1.94	1.45	1.09	.73	.58	.55
17F669	CPO5A1KC473K3	.047	200	.375x1⁵⁄₁₆	1.80	1.35	1.01	.67	.54	.51
17F840	CPO5A1KC683K3	.068	200	.375x1⁵⁄₁₆	1.84	1.38	1.04	.69	.55	.53
17F679	CPO5A1KE104K3	.1	400	.463x1⁷⁄₁₆	2.02	1.52	1.14	.76	.61	.57
17F677	CPO5A1KC104K3	.1	200	.463x1⁵⁄₁₆	1.89	1.42	1.06	.71	.57	.54
17F675	CPO5A1KB104K3	.1	100	.375x1⁵⁄₁₆	1.84	1.38	1.04	.69	.55	.52
17F683	CPO5A1KB154K3	.15	100	.463x1⁵⁄₁₆	1.94	1.45	1.09	.73	.58	.55
17F689	CPO5A1KE224K3	.22	400	.625x1⁷⁄₁₆	2.37	1.78	1.33	.89	.71	.67
17F687	CPO5A1KC224K3	.22	200	.463x1⁷⁄₁₆	2.09	1.57	1.18	.78	.63	.59
17F685	CPO5A1KB224K3	.22	100	.463x1³⁄₁₆	1.94	1.45	1.09	.73	.58	.55
17F841	CPO5A1KE334K3	.33	400	.625x1¹⁵⁄₁₆	2.42	1.81	1.36	.91	.73	.68
17F693	CPO5A1KB334K3	.33	100	.463x1⁷⁄₁₆	2.16	1.62	1.21	.81	.65	.59
17F521	CPO5A1KF474K3	.47	600	.813x2³⁄₁₆	3.12	2.34	1.76	1.18	.94	.86
17F518	CPO5A1KE474K3	.47	400	.733x1¹⁵⁄₁₆	2.90	2.18	1.64	1.09	.87	.80
17F699	CPO5A1KC474K3	.47	200	.625x1⁷⁄₁₆	2.42	1.81	1.36	.91	.73	.68
17F697	CPO5A1KB474K3	.47	100	.625x1³⁄₁₆	2.33	1.75	1.31	.88	.70	.64

CPO8

Stock No.	Mil	Cap.	Volt	Case Size	1-9	10-24	25-49	50-99	100-499	500-999
17F533	CPO8A1KC472K3	.0047	200	.235x¾	1.69	1.27	.95	.64	.51	.47
17F260	CPO8A1KF682K3	.0068	600	.312x⅞	2.06	1.54	1.16	.77	.62	.56
17F537	CPO8A1KF103K3	.01	600	.312x⅞	1.91	1.44	1.08	.72	.57	.53
17F226	CPO8A1KF223K3	.022	600	.400x⅞	1.96	1.47	1.10	.73	.59	.54
17F539	CPO8A1KC223K3	.022	200	.312x⅞	1.85	1.39	1.04	.69	.54	.49
17F272	CPO8A1KF473K3	.047	600	.400x1⅜	2.02	1.52	1.14	.76	.61	.57
17F540	CPO8A1KB473K3	.047	100	.312x⅞	1.80	1.35	1.02	.68	.54	.51
17F274	CPO8A1KF683K3	.068	600	.562x1⅛	2.16	1.62	1.21	.81	.65	.61
17F270	CPO8A1KF104K3	.1	600	.562x1⅜	2.20	1.65	1.24	.83	.66	.62
17F545	CPO8A1KE104K3	.1	400	.562x1⅛	2.11	1.58	1.19	.79	.63	.60
17F543	CPO8A1KC104K3	.1	200	.400x1⅛	1.91	1.44	1.08	.72	.57	.52
17F542	CPO8A1KB104K3	.1	100	.400x⅞	1.85	1.39	1.04	.69	.55	.51
17F278	CPO8A1KE154K3	.15	400	.562x1⅜	2.20	1.65	1.24	.83	.66	.63
17F281	CPO8A1KF334K3	.33	600	.750x2⅛	2.95	2.21	1.66	1.11	.88	.84
17F552	CPO8A1KC474K3	.47	200	.562x1⅝	2.33	1.75	1.31	.88	.70	.66
17F556	CPO8A1KC105K3	1.0	200	.750x2⅛	2.97	2.23	1.67	1.11	.89	.84
17F555	CPO8A1KB105K3	1.0	100	.670x1⅝	2.64	1.98	1.49	.99	.79	.75
17F842	CPO8A1EC223K3	.022	200	.312x⅞	1.61	1.21	.90	.60	.48	.45
17F843	CPO8A1EC473K3	.047	200	.400x⅞	1.72	1.29	.97	.64	.52	.49
17F844	CPO8A1EB473K3	.047	100	.312x⅞	1.69	1.27	.95	.64	.51	.48
17F845	CPO8A1EC104K3	.1	200	.400x1⅛	1.76	1.32	.99	.66	.53	.50
17F846	CPO8A1EB104K3	.1	100	.400x⅞	1.76	1.32	.99	.66	.53	.50

CPO9

Stock No.	Mil	Cap.	Volt	Case Size	1-9	10-24	25-49	50-99	100-499	500-999
17F557	CPO9A1KF102K3	.001	600	.298x1³⁄₁₆	1.83	1.37	1.03	.69	.55	.52
17F558	CPO9A1KF222K3	.0022	600	.298x1³⁄₁₆	1.83	1.37	1.03	.69	.55	.52
17F288	CPO9A1KF332K3	.0033	600	.375x1⁵⁄₁₆	1.88	1.41	1.06	.71	.56	.53
17F291	CPO9A1KC472K3	.0047	200	.298x1³⁄₁₆	1.77	1.33	.99	.66	.53	.50
17F563	CPO9A1KF103K3	.01	600	.375x1⁵⁄₁₆	1.99	1.50	1.12	.75	.60	.56
17F561	CPO9A1KB103K3	.01	100	.298x1³⁄₁₆	1.74	1.31	.98	.65	.52	.49
17F350	CPO9A1KB153K3	.015	100	.298x1³⁄₁₆	1.74	1.31	.98	.65	.52	.49
17F565	CPO9A1KC333K3	.033	200	.375x1⁵⁄₁₆	1.93	1.45	1.09	.72	.58	.55
17F570	CPO9A1KE473K3	.047	400	.463x1³⁄₁₆	2.07	1.55	1.16	.78	.62	.59
17F857	CPO9A1KB473K3	.047	100	.375x1⁵⁄₁₆	1.88	1.41	1.06	.71	.57	.54
17F571	CPO9A1KC683K3	.068	200	.463x1⁵⁄₁₆	1.98	1.49	1.11	.74	.59	.56
17F579	CPO9A1KF104K3	.1	600	.625x1⁷⁄₁₆	2.33	1.75	1.31	.87	.70	.67
17F577	CPO9A1KE104K3	.1	400	.625x1³⁄₁₆	2.24	1.68	1.26	.84	.67	.64
17F575	CPO9A1KC104K3	.1	200	.463x1³⁄₁₆	2.00	1.50	1.13	.75	.60	.57
17F573	CPO9A1KB104K3	.1	100	.463x1⁵⁄₁₆	1.94	1.45	1.09	.73	.58	.55
17F858	CPO9A1KB154K3	.15	100	.463x1³⁄₁₆	1.94	1.45	1.09	.73	.58	.55
17F581	CPO9A1KE224K3	.22	400	.625x1¹¹⁄₁₆	2.46	1.85	1.38	.92	.74	.71
17F859	CPO9A1KB224K3	.22	100	.463x1⁷⁄₁₆	2.07	1.55	1.16	.78	.62	.58
17F590	CPO9A1KB105K3	1.0	100	.733x1¹¹⁄₁₆	2.80	2.10	1.58	1.05	.84	.80
17F847	CPO9A1EF102K3	.001	600	.298x1³⁄₁₆	1.67	1.25	.94	.63	.50	.47
17F848	CPO9A1EF152K3	.0015	600	.298x1³⁄₁₆	1.67	1.25	.94	.63	.50	.47
17F480	CPO9A1EF472K3	.0047	600	.375x1⁵⁄₁₆	1.71	1.29	.96	.64	.51	.48
17F562	CPO9A1EF103K3	.01	600	.375x1⁵⁄₁₆	1.72	1.29	.97	.64	.51	.48
17F296	CPO9A1EC103K3	.01	200	.375x1⁵⁄₁₆	1.61	1.20	.91	.61	.48	.46
17F449	CPO9A1EB103K3	.01	100	.298x1³⁄₁₆	1.69	1.27	.95	.64	.51	.47
17F351	CPO9A1EE223K3	.022	400	.463x1⁵⁄₁₆	1.74	1.30	.98	.65	.52	.49
17F849	CPO9A1EC223K3	.022	200	.375x1⁵⁄₁₆	1.67	1.25	.94	.63	.50	.48
17F850	CPO9A1EC333K3	.033	200	.375x1⁵⁄₁₆	1.69	1.27	.95	.64	.51	.48
17F569	CPO9A1EB473K3	.047	100	.375x1⁵⁄₁₆	1.76	1.32	.99	.66	.53	.49
17F851	CPO9A1EC683K3	.068	200	.463x1⁵⁄₁₆	1.79	1.34	1.01	.67	.54	.51
17F578	CPO9A1EE104K3	.1	400	.625x1³⁄₁₆	1.84	1.38	1.03	.69	.55	.52
17F576	CPO9A1EC104K3	.1	200	.463x1³⁄₁₆	1.84	1.38	1.03	.69	.55	.52
17F574	CPO9A1EB104K3	.1	100	.463x1⁵⁄₁₆	1.83	1.37	1.03	.69	.55	.52
17F852	CPO9A1EB154K3	.15	100	.463x1³⁄₁₆	1.87	1.41	1.06	.70	.56	.52
17F463	CPO9A1EC224K3	.22	200	.625x1³⁄₁₆	1.62	1.31	1.21	.81	.65	.59
17F853	CPO9A1EC334K3	.33	200	.625x1⁷⁄₁₆	2.30	1.73	1.29	.86	.68	.63
17F586	CPO9A1EE474K3	.47	400	.813x2³⁄₁₆	2.78	2.09	1.56	1.05	.84	.77
17F585	CPO9A1EC474K3	.47	200	.625x1¹¹⁄₁₆	2.34	1.74	1.32	.88	.70	.66
17F454	CPO9A1EB474K3	.47	100	.625x1⁷⁄₁₆	2.26	1.69	1.27	.85	.68	.62
17F854	CPO9A1EC684K3	.68	200	.733x1¹¹⁄₁₆	2.63	1.97	1.47	.99	.79	.73
17F855	CPO9A1EC105K3	1.0	200	.813x2³⁄₁₆	2.75	2.08	1.54	1.03	.83	.76
17F856	CPO9A1EB105K3	1.0	100	.733x1¹¹⁄₁₆	2.63	1.97	1.47	.99	.79	.73

SANGAMO

QUALITY CAPACITORS

NEWARK CARRIES
COMPLETE LINES

TYPE DCM CAPACITORS

High quality, electrolytic capacitor designed as an energy storage component for DC circuitry. Etched aluminum cathodes to lessen reverse-current action loss. Housed in seamless container with gasket sealed, cover. Permanent aluminum terminal assemblies. Pressure-sensitive vent provides safety mechanism. Furnished with acetate insulating sleeve. A footed, wrap- All sizes and values available. Write for price and delivery. Av. shpg. wt.: Dia. 1 7/16—5 oz. Dia. 1 13/16—8 oz. Dia. 2 1/16—10 oz. Dia. 2 9/16—14 oz. Dia. 3 1/16—1 lb. 8 oz.

Stock No.	Type	Mfd	Volt	Size	1-24	25-49	50-99	100-249	250-499
17F364	539-2515-01	1,000	10	1 7/16x2½	1.95	1.14	.88	.78	.75
17F365	539-2622-01	10,000	10	1 7/16x4½	5.10	2.97	2.29	2.04	1.95
17F600	539-2628-01	6,000	15	1 7/16x4½	4.23	2.47	1.90	1.69	1.62
17F601	539-2737-01	10,000	15	1 13/16x4½	5.34	3.11	2.40	2.14	2.05
17F368	539-2630-01	25,000	15	2 1/16x6	10.95	6.39	4.93	4.38	4.20
17F952	539-1246-02	35,000	15	3 1/16x4½	11.34	6.61	5.10	4.54	4.35
17F369	539-2545-01	3,000	25	1 7/16x3½	3.69	2.15	1.66	1.48	1.41
17F602	539-2634-01	5,000	25	1 7/16x4½	4.74	2.76	2.13	1.90	1.82
17F953	539-2739-01	8,000	25	1 13/16x4½	6.12	3.57	2.75	2.45	2.35
17F954	539-2635-01	10,000	25	2 1/16x4½	7.26	4.23	3.27	2.90	2.78
17F955	539-2636-01	15,000	25	2 1/16x6	10.20	5.95	4.59	4.08	3.91
17F820	539-2638-01	25,000	25	3 1/16x4½	11.22	6.54	5.05	4.49	4.30
17F970	539-1094-03	20,000	30	3 1/16x4½	10.59	6.18	4.76	4.24	4.06
17F371	539-2717-02	25,000	30	3 1/16x6	11.22	6.54	5.05	4.49	4.30
17F603	539-2642-01	8,000	35	2 1/16x4½	8.55	4.99	3.85	3.42	3.28
17F373	539-1615-03	1,000	50	1 7/16x3½	3.24	1.89	1.46	1.30	1.24
17F821	539-2552-01	1,500	50	1 7/16x3½	3.69	2.15	1.66	1.48	1.41
17F374	539-1463-02	2,000	50	1 7/16x4½	3.81	2.22	1.71	1.52	1.46
17F375	539-2647-01	2,500	50	1 7/16x4½	4.08	2.38	1.84	1.63	1.56
17F958	539-2741-01	4,000	50	1 13/16x4½	5.49	3.20	2.47	2.20	2.10
17F959	539-2648-01	5,000	50	2 1/16x4½	7.11	4.15	3.20	2.84	2.73
17F960	539-2649-01	8,000	50	2 1/16x6	8.79	5.13	3.96	3.52	3.37
17F604	539-2650-01	10,000	50	2 9/16x4½	11.46	6.68	5.16	4.58	4.39
17F377	539-2653-01	1,000	75	1 7/16x4½	4.02	2.34	1.81	1.61	1.54
17F822	539-1214-03	6,000	75	3 1/16x4½	10.38	6.05	4.67	4.15	3.98
17F605	539-2742-01	1,500	100	1 13/16x4½	4.83	2.82	2.17	1.93	1.85
17F380	539-2597-01	3,000	100	2 1/16x6	9.42	5.49	4.24	3.77	3.61
17F950	539-2660-01	4,000	100	2 9/16x4½	9.96	5.81	4.48	3.98	3.82
17F823	539-2663-01	500	150	1 7/16x3½	3.84	2.24	1.73	1.54	1.47
17F382	539-2664-01	700	150	1 7/16x4½	4.32	2.52	1.94	1.73	1.66
17F606	539-2743-01	1,000	150	1 13/16x4½	4.83	2.82	2.17	1.93	1.85
17F383	539-2665-01	2,000	150	2 1/16x6	8.37	4.88	3.77	3.35	3.21
17F385	539-1054-02	3,500	150	3 1/16x4½	11.46	6.68	5.16	4.58	4.39
17F607	539-2667-01	4,000	150	3 1/16x4½	12.63	7.37	5.68	5.05	4.84
17F388	539-2670-01	1,500	200	2 1/16x6	7.65	4.46	3.44	3.06	2.93
17F390	539-2575-01	1,000	250	2 1/16x4½	9.81	5.72	4.41	3.92	3.76
17F393	539-2678-01	1,000	350	3 1/16x4½	11.73	6.84	5.28	4.69	4.50
17F394	539-2683-01	300	450	2 1/16x4½	6.33	3.69	2.85	2.53	2.43
17F608	539-2684-01	500	450	2 1/16x6	8.04	4.69	3.62	3.22	3.08
17F395	539-2686-01	800	450	3 1/16x4½	11.46	6.68	5.16	4.58	4.39

TYPE 75—MOTOR RUN AND BALLAST CAPACITORS

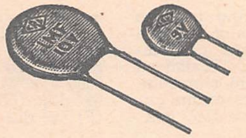
Type 75 paper dielectric capacitors are impregnated with Diaclor and designed for continuous A.C. duty in ambient temperatures up to 75°C. They are recommended for use in motor-run, ballast and light-duty power factor correction applications. Standard tolerance ±10%. All units supplied with riveted silicone rubber bushing terminals with solder lugs.

Stock No.	Type	Mfd	WVAC	H x W x D	Wt. Oz.	1-9	10-99	Stk. No.	Spade Type Mtg. Brkts.	Per Pair with CAP*	Without CAP** 1-9 pr	Without CAP** 10 pr
17F609	7522-1	1	220	1⅝x1 13/16x1 1/16	3	3.80	1.47	17F872	CPO7SA1	.23		
17F610	7522-2	2	220	2¼x1 13/16x1¼	5	4.55	1.69	17F867	CPO7SA2			
17F611	7522-3	3	220	2⅞x1 13/16x1 1/16	7	4.84	1.85	17F869	CPO7SA3			
17F612	7522-3.75	3.75	220	3¼x1 13/16x1 1/16	9	5.20	2.06	17F860	CPO7SA4			
17F614	7522-5	5	220	2⅞x2½x1 3/16	12	5.61	2.23	17F873	CPO7SB2			
17F615	7522-6	6	220	3½x2½x1 3/16	12	6.22	2.40	17F874	CPO7SB3			
17F616	7522-8	8	220	3⅞x2½x1 3/16	12	7.44	2.81	17F861	CPO7SB4			
17F617	7522-10	10	220	4¾x2½x1 3/16	21	8.56	3.21	17F865	CPO7SB6			
17F618	7522-12	12	220	3⅞x3¾x1¼	23	9.79	3.61	17F864	CPO7SC2	.30	.51	.46
17F619	7522-15	15	220	4¼x3¾x1¼	24	10.21	4.11	17F868	CPO7SC3	.30		
17F620	7522-20	20	220	4x3¾x1¾	26	16.01	5.25	17F862	CPO7SD3	.33		
17F621	7522-25	25	220	4⅛x3¾x2¼	34	20.01	7.57	17F862	CPO7SD3	.33		
17F622	7533-1	1	330	2⅛x1 13/16x1 1/16	4	4.00	1.47	17F867	CPO7SA2	.23		
17F623	7533-2	2	330	2⅞x1 13/16x1 1/16	6	4.65	1.76	17F868	CPO7SA3			
17F819	7533-3	3	330	3⅞x1 13/16x1 1/16	8	5.32	2.06	17F875	CPO7SA5			
17F624	7533-3.75	3.75	330	3⅞x2 1/16x1 3/16	9	5.84	2.25	17F861	CPO7SB4			
17F625	7533-4	4	330	4¾x1 13/16x1 1/16	9	6.01	2.32	17F863	CPO7SA6			
17F626	7533-8	8	330	4¼x3¾x1¼	14	8.70	3.28	17F868	CPO7SC3	.30		
17F627	7533-10	10	330	3⅞x3¾x1¼	23	10.01	3.67	17F864	CPO7SC2	.30		
17F629	7544-2	2	440	3¼x1 13/16x1 1/16	6	5.63	1.94	17F860	CPO7SA4	.23		
17F630	7544-3	3	440	4¾x1 13/16x1 1/16	8	6.55	2.33	17F863	CPO7SA6			
17F631	7544-3.75	3.75	440	3⅞x2½x1 3/16	11	6.80	2.46	17F861	CPO7SB4			
17F633	7544-5	5	440	4¾x2½x1 3/16	16	8.01	3.03	17F865	CPO7SB6			
17F636	7566-1	1	660	3⅞x1 13/16x1 1/16	7	4.83	1.86	17F875	CPO7SA5			
17F637	7566-2	2	660	3⅞x2½x1 3/16	11	6.07	2.41	17F861	CPO7SB4			
17F638	7566-4	4	660	4¾x3¾x1¼	22	7.52	3.40	17F876	CPO7SC4	.30		
17F641	7566-8	8	660	3⅞x3¾x2¼	38	11.30	5.54	17F877	CPO7SE3	.33		

*Price when purchased with Capacitor.
**Price when purchased without Capacitor.

DISC CAPACITORS Centralab®

CENTRALAB TYPE UK ULTRA-KAPS



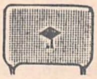
For transistor circuit applications, ideal for any low voltage use requiring extremely high capacities and low power factors. TOL: (GMV) Guaranteed Minimum Value Rated: 3 VDC Working.

Stk. No.	Type	Mfd.	Size	1-24	25-99	100-249	250-499	500-999
19F395	UK-104	.1	3/16''	.54	.428	.36	.27	.203
19F396	UK-224	.22	1/4''	.33	.26	.22	.165	.124
19F397	UK-474	.47	3/8''	.33	.26	.22	.165	.124
19F398	UK-105	1.0	9/16''	.54	.428	.36	.27	.203
19F399	UK-225	2.2	3/4''	.54	.428	.36	.27	.203

TYPE UK10—10 VDCW (Tol. +80 —20%)

19F276	UK10-503	.05	1/4''	.33	.262	.22	.165	.124
19F277	UK10-104	.10	3/8''	.33	.262	.22	.165	.124
19F278	UK10-204	.20	9/16''	.33	.262	.22	.165	.124
19F279	UK10-474	.47	3/4''	.54	.428	.36	.27	.203

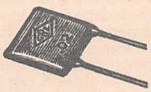
TYPE DF FLAT PLATE HI-KAPS



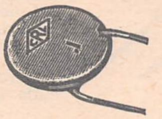
Ideal for use in bypass or filter applications. New extremely thin design has high capacity and low mass weight. Uses new Centralab ceramic for stability and permanence. No. 20 tinned wire leads. 600 VDCW, 1200 VDC test. Size: 1 7/16x1 1/16x7/32" except * 19/64". Shpg. wt., 3 oz.

Stk. No.	Type	Mfd.	Tol.	1-24	25-99	100-249	250-499	500-999
19F362	DF-503	.05	GMV	.75	.594	.50	.375	.281
19F364	DF-104*	.1	+80-20%	1.05	.831	.70	.525	.394

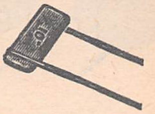
LOW VOLTAGE CAPACITORS FOR TRANSISTOR CIRCUITS



TYPE DA



TYPE DDA



TYPE DM

High capacity, low voltage ceramic capacitors designed especially for such sub-miniature applications as transistor circuits. **Type DA.** 1/2x1/2x3/16''. Cap. Tolerance: —20%, +100%. Rated 30 VDCW.

Stk. No.	Type	Mfd.	1-24	25-99	100-249	250-499	500-999
19F1100	DA-203	.02	.36	.285	.24	.18	.135
19F1101	DA-503	.05	.81	.641	.54	.405	.304
19F1102	DA-104	.1	1.35	1.07	.90	.675	.506

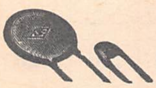
Type DDA. Disc type 5/8'' diam. x 5/32'' thk. Cap. tolerance —30%, +80%. Rated 75 VDCW.

Stk. No.	Type	Mfd.	1-24	25-99	100-249	250-499	500-999
19F1103	DDA-503	.05	.30	.238	.20	.15	.113
19F1104	DDA-104	.1	.60	.475	.40	.30	.225

Type DM. Plate type 17/32x7/32x7/64'' thk. Cap. Tolerance: —20%, +50% up to .002 higher cap. —20%, +80%. Rated 150 VDCW.

Stk. No.	Type	Mfd	1-24	25-99	100-249	250-499	500-999
19F1105	DM-101	.0001	.30	.238	.20	.15	.113
19F1106	DM-201	.0002					
19F1107	DM-301	.0003					
19F1108	DM-501	.0005					
19F1109	DM-102	.001					
19F1110	DM-202	.002					
19F1111	DM-302	.003					
19F1112	DM-502	.005					
19F1113	DM-103	.01	.60	.475	.40	.30	.225
19F1114	DM2-502	2x.005	.75	.594	.50	.375	.281

CENTRALAB DD DISC CERAMIC CAPACITORS

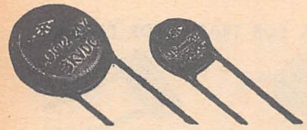


Primarily intended for by-pass coupling or filter service where high capacity is necessary and controlled stability is secondary. Disc ceramic capacitors have a higher dielectric constant, greater voltages, and higher capacities in less space than paper or mica types. Construction enables these units to operate for long periods of time under extreme moisture, temperature, and vibration. 1000 volts DC working except #, which are 600 volts DC working. Tolerance ±10% except * ±20%, †±.5 mmf, ‡ GMV; ** +80—20% (A) 1/4x5/32"; (B) 3/8x5/32"; (C) 9/16x5/32"; (D) 5/8x5/32"; (E) 3/4x5/32"; (F) 7/8x15/64"; (G) 9/16x11/64"; (H) 3/4x11/64".

Stk. No.	Type	Mmf	Size	1-24	25-99	100-249	250-499	500-999
19F300	DD-3R3	3.3†	A	.15	.119	.10	.075	.056
19F301	DD-050	5	A					
19F341	DD-060	6	A					
19F302	DD-6R8	6.8	A					
19F342	DD-7R5	7.5	A					
19F343	DD-080	8	A					
19F303	DD-100	10	A					
19F344	DD-120	12	A					
19F304	DD-150	15	A					
19F345	DD-180	18	A					
19F305	DD-200	20	A					
19F346	DD-220	22	A					
19F347	DD-240	24	A					
19F306	DD-250	25	A					
19F348	DD-270	27	A					
19F349	DD-300	30	A					
19F307	DD-330	33	A					
19F308	DD-390	39	A					
19F309	DD-470	47	A					
19F310	DD-500	50	A					
19F516	DD-510	51	A					
19F311	DD-560	56	A					
19F312	DD-680	68	A					
19F313	DD-750	75	A					
19F358	DD-820	82	A					
19F359	DD-910	91	A					
19F314	DD-101	100	A					
19F315	DD-121	120	A					
19F365	DD-131	130	A					
19F316	DD-151	150	A					
19F317	DD-181	180	A					
19F318	DD-201	200	A					
19F319	DD-221	220	A					
19F366	DD-241	240	A					
19F320	DD-251	250	A					
19F321	DD-271	270	A					
19F322	DD-301	300	A					
19F323	DD-331	330	A					
19F368	DD-351	350	A					
19F369	DD-361	360	A					
19F324	DD-391	390	A					
19F379	DD-401	400	A					
19F325	DD-471	470	A					

Stk. No.	Type	Mmf	Size	1-24	25-99	100-249	250-499	500-999
19F517	DD-471G	470‡	A	.15	.119	.10	.075	.056
19F326	DD-501	500	A					
19F518	DD-511	510	A					
19F327	DD-561	560	A					
19F519	DD-601	600	A					
19F328	DD-681	680	A					
19F329	DD-751	750	A					
19F330	DD-801	800‡	A					
19F380	DD-821	820	A					
19F531	DD-911	910	A					
19F331	DD-102	1000	B					
19F532	DD-102G	1000‡	A					
19F381	DD-122	1200	B					
19F533	DD-122G	1200‡	A					
19F382	DD-132	1300	B					
19F332	DD-152	1500	B					
19F534	DD-152G	1500‡	A					
19F383	DD-162	1600	B					
19F384	DD-182	1800	B					
19F333	DD-202	2000‡	B					
19F385	DD-222	2200‡	B					
19F386	DD-252	2500‡	B					
19F387	DD-272	2700‡	B					
19F334	DD-302	3000‡	B					
19F388	DD-332	3300‡	C					
19F389	DD-392	3900‡	C					
19F390	DD-402	4000‡	C					
19F391	DD-432	4300‡	C					
19F335	DD-472	4700*	C					
19F535	DD-472G	4700‡	C					
19F336	DD-5022	5000*	G					
19F337	DD-502	5000‡	G					
19F392	DD-562	5600‡	C					
19F393	DD-682	6800‡	C					
19F394	DD-752	7500‡	C					
19F536	DD-822	8200‡	D					
19F339	DD-103	10000‡	H	.24	.19	.16	.12	.09
19F338	DD-1032	10000*	E	.24	.19	.16	.12	.09
19F340	DD-203#	20000**	F	.24	.19	.16	.12	.09
19F537	DD-303#	30000**	F	.45	.356	.30	.225	.169
19F538	DD-403#	40000**	F	.45	.356	.30	.225	.169
19F539	DD-503#	50000**	F	.45	.356	.30	.225	.169

Centralab. CAPACITORS



3000-6000 V HI-VO DISC CAPACITORS

Highly efficient for by-pass-coupling in high frequency circuits under conditions of extreme humidity or temperature. Maintain performance at temperatures up to 85° C. Tested at twice rated working voltage before shipment. Not recommended for tuning or resonant circuits. Leads #22 tinned copper wire 1½" min. length. Insul.: Double coating special phenolic resin "DUREZ" and high temp. vacuum wax impregnation. Tolerance ±20%. Voltages: DD30 series, 3000 VDCW, 6000 VDC test; DD60 series, 6000 VDCW, 12,000 test. Sizes: (A) ¼" dia.; (B) ⅜" dia.; (C) 9⁄16" dia.; (D) ⅝" dia.; (E) ¾" dia.; (F) ⅞" dia.

TYPE DD30—3000 VDCW—6000 VDC TEST

Stk. No.	Type	Mmf	Size	1-24	25-99	100-249	250-499	500-999
19F200	4R7	4.7	A	.24	.19	.16	.12	.09
19F203	100	10	A					
19F206	220	22	A					
19F207	250	25	A					
19F210	390	39	A					
19F211	470	47	A					
19F212	500	50	A					
19F213	560	56	A					
19F215	750	75	A					
19F216	820	82	A					
19F217	101	100	A					
19F218	121	120	A					
19F219	151	150	A					
19F220	181	180	A					
19F221	201	200	A					
19F222	221	220	A					
19F223	251	250	A					

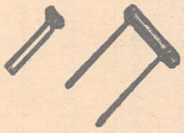
Stk. No.	Type	Mmf	Size	1-24	25-99	100-249	250-499	500-999
19F225	301	300	A	.24	.19	.16	.12	.09
19F226	331	330	A					
19F227	391	390	A					
19F228	401	400	A					
19F229	471	470	B					
19F230	501	500	B					
19F231	561	560	B					
19F232	681	680	B					
19F233	751	750	B					
19F234	102	1,000	C	.30	.24	.20	.15	.113
19F235	122	1,200	C					
19F236	152	1,500	C					
19F237	202	2,000	D					
19F238	222	2,200	D					
19F239	252	2,500	D					
19F241	302	3,000	E					
19F242	502	5,000	F					

TYPE DD60—6000 VDCW—12,000 VDC TEST

Stk. No.	Type	Mmf	Size	1-24	25-99	100-249	250-499	500-999
19F460	4R7	4.7	C	.36	.29	.24	.18	.135
19F463	100	10	C					
19F465	150	15	C					
19F469	300	30	C					
19F471	390	39	C					
19F472	470	47	C					
19F473	500	50	C					
19F474	560	56	C					
19F476	750	75	C					
19F477	820	82	C					
19F478	101	100	C					
19F479	121	120	C					
19F480	151	150	C					
19F481	181	180	C					
19F482	201	200	C					

Stk. No.	Type	Mmf	Size	1-24	25-99	100-249	250-499	500-999
19F483	221	220	C	.36	.29	.24	.18	.135
19F484	251	250	C					
19F485	271	270	C					
19F486	301	300	C					
19F487	331	330	C					
19F488	391	390	C					
19F490	471	470	C					
19F491	501	500	C					
19F492	561	560	C					
19F493	681	680	C					
19F494	751	750	C					
19F495	102	1,000	E	.60	.48	.40	.30	.225
19F496	122	1,200	E					
19F497	152	1,500	F					
19F498	202	2,000	F					

CRL D6 CERAMIC CAPACITORS



Compact, moisture proof high capacity tubulars with insulated bodies. Excellent for television and industrial applications. All have ±10% tolerance except * ±20%. ** ±.5 mmf 3 thru 330 mmf and 750 thru 1800 mmf are .460"x.260", 560 thru 680 mmf and 2000 thru 4000 mmf are .790"x.260", 4700 thru 5600 are .900"x.280", and 6800 thru 10,000 are 1.210"x.330". All are 600 VDC working, 1200 VDC test. Centralab's exclusive ceramic construction enables these units to operate for long periods of time under extremes of moisture, temperature and vibrations. Shipping weight, 2 oz.

±10% & ±20% TOLERANCE

Stk. No.	Mmf	Stk. No.	Mmf	Stk. No.	Mmf	Stk. No.	Mmf	1-24	25-99	100-249	250-499	500-999
19F149	3**	19F109	47	19F119	220	19F129	600	.15	.12	.10	.075	.056
19F148	5	19F110	50	19F120	250	19F130	680					
19F101	12	19F111	56	19F121	270	19F131	750*					
19F102	15	19F112	68	19F122	300	19F132	1000*					
19F150	20	19F113	75	19F123	330	19F134	1500*					
19F104	22	19F114	100	19F124	390	19F135	1800*					
19F105	25	19F115	120	19F125	400	19F136	2000*					
19F106	27	19F116	150	19F126	470	19F137	2200*					
19F107	33	19F117	180	19F127	500							
19F108	39	19F118	200	19F128	560							

GMV (Guaranteed Minimum Value) TOLERANCES

19F138	2,500	19F140	3,000	19F142	4,000	19F144	5,000	.15	.12	.10	.075	.056
19F139	2,700	19F141	3,300					.15	.12	.10	.075	.056
19F147	10000							.18	.14	.12	.09	.068

TYPE CK—50 VDCW

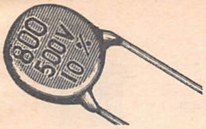
Type CK capacitors are designed for high capacity low voltage demands of transistor circuitry. Proven for use in transistor radios. Working voltage: 50 VDC. Leakage resistance initial: over 7500 megohms. Leakage resistance after humidity: over 1000 megohms. Leads: #22 tinned copper, 1½" minimum length. Max. thickness .156". Power factor: 2% max. at 1 KC. Insulation: Phenolic vacuum wax impregnated. Tolerance: all +80 —20%. Max. capacity change: +25°C to +45°C = ±30%.

Stk. No.	Cap. Mfd.	CRL. No.	Diam.	1-24	25-99	100-249	250-499	500-999
19F1223	.005	CK-502	⅜"	.21	.166	.14	.105	.079
19F1224	.01	CK-103	⅜"	.21	.166	.14	.105	.079
19F1225	.02	CK-203	9⁄16"	.21	.166	.14	.105	.079

Stk. No.	Cap. Mfd.	CRL. No.	Diam.	1-24	25-99	100-249	250-499	500-999
19F1226	.025	CK-253	9⁄16"	.21	.166	.14	.105	.079
19F1228	.05	CK-503	⅝"	.21	.166	.14	.105	.079
19F1229	.1	CK-104	⅝"	.60	.475	.40	.30	.225

SAVE WORK! Make Newark your Complete 1-Point Stock Source!
SAVE TIME! At Newark—fast, efficient service always!
SAVE MONEY! Quantity Prices Competitive with Manufacturer!

CAPACITORS Centralab®



TEMPERATURE STABLE "K" AND SEMI-STABLE "K" DISC HI-KAPS

Types CE & CF Hi-Kaps used for applications requiring a min. capacity change as temperature varies between —55°C and +85°C. Working voltage: 500 VDC. Phenolic insulation impregnated with high temp. wax. ±10% Tolerance. Size Leads 1½"min. length;* .290" dia.,** .385" dia., † .590" dia., † .690" dia., # .920" dia. Average shipping weight, 1 oz

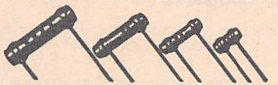
STABLE

Stk. No.	Mmf.	CRL. No.	1-24	25-99	100-249	250-499	500-999
19F1235	150	CE-151*	.18	.14	.12	.09	.068
19F1236	220	CE-221*					
19F1237	330	CE-331*					
19F1238	470	CE-471*					
19F1239	500	CE-501*					
19F1240	560	CE-561*					
19F1241	680	CE-681**					
19F1242	750	CE-751**					
19F1243	800	CE-801**					
19F1244	1000	CE-102**					

SEMI-STABLE

Stk. No.	Mmf.	CRL. No.	1-24	25-99	100-249	250-499	500-999
19F1245	1200	CF-122**	.18	.14	.12	.09	.068
19F1246	1500	CF-152**					
19F1247	1800	CF-182**					
19F1248	2000	CF-202†	.21	.17	.14	.105	.079
19F1249	2200	CF-222†					
19F1250	3300	CF-332†					
19F1251	3900	CF-392†					
19F1252	4700	CF-472‡					
19F1253	5000	CF-502‡					
19F1254	6200	CF-622‡					
19F1255	8200	CF-822#	.24	.19	.16	.12	.09
19F1256	10000	CF-103#	.24	.19	.16	.12	.09

CENTRALAB TEMPERATURE COMPENSATING TUBULAR CAPACITORS



Designed especially to limit frequency drift in r.f. circuits where temperature variations are prevalent. Ceramic body changes capacities as the temperature varies. 1,200 volts DC test; 600 volts DC working. Meets JAN-C-20A specifications. Weight, 2 oz.

A .400"x.200"
B .690"x.200"
C .860"x.225"
D 1.165"x.285"
E 1.625"x.285"

TYPE TCN ±.5 MMF TOLERANCE

Stk. No.	Mmf.	Size	1-24	25-99	100-249	250-499	500-999
19F048	3.3	A	.30	.24	.20	.15	.113
19F049	5.0	A					
19F050	10.	A					

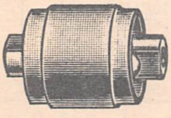
TYPE TCN ±2% TOLERANCE

19F051	12.	A	.30	.24	.20	.15	.113
19F052	15.	A					
19F053	18.	A					
19F054	20.	A					
19F055	22.	A					
19F056	24.	A					
19F093	25.	A					
19F057	27.	A					
19F058	30.	A					
19F059	33.	A					
19F060	36.	A					
19F061	39.	A					
19F062	43.	A					
19F063	47.	A					
19F047	50.	A					
19F064	51.	A					
19F065	56.	A					
19F066	62.	A					
19F067	68.	A					
19F068	75.	A					
19F069	82.	A					
19F070	91.	A					
19F071	100.	A					

TYPE TCN ±5% TOLERANCE

19F072	110.	B	.30	.24	.20	.15	.113
19F073	120.	B					
19F074	130.	B					
19F075	150.	B					
19F076	160.	B					
19F077	180.	B					
19F078	200.	B					
19F079	220.	C					
19F080	240.	C					
19F081	270.	C					
19F082	300.	D	.45	.36	.29	.225	.169
19F083	330.	D					
19F084	360.	D					
19F085	390.	D					
19F086	430.	D					
19F087	470.	D					
19F088	510.	D					
19F089	560.	D	.60	.40	.39	.30	.225
19F090	620.	E					
19F091	680.	E					
19F092	750.	E					

TRANSMITTING CAPACITORS TYPE 857



7.5 KV and 15KV axial screw terminals that are fully threaded to ¼" with NF-2 thread. All 15,000 volts DC, except *, which work at 7,500 volts DC. Negative 750 temperature coefficients, except †, which are NPO zero temperature coefficients. The tolerance is ±10%. Size: 1⁹⁄₃₂" diameter by 1⁵⁄₁₆" long.

Stk. No.	Type	Mmf.	RF Load at 30MC	NET EACH 1-9	10-24	25-99	100-249
19F454	857-25Z†	25	12 amps	8.40	7.56	6.65	6.00
19F455	857-50Z†	50	12 amps	8.40	7.56	6.65	6.00
19F456	857-100N	100	14.4 amps	7.20	6.48	5.70	5.13
19F457	857-200N*	200	18.2 amps	7.20	6.48	5.70	5.13

TYPE TCZ ± .25 MMF TOLERANCE

Stk. No.	Mmf	Size	1-24	25-99	100-249	250-499	500-999
19F000	.5	A	.30	.24	.20	.15	.113
19F001	.68	A					
19F002	1.0	A					
19F003	1.5	A					
19F004	2.2	A					
19F005	3.3	A					

TYPE TCZ ± .5 MMF TOLERANCE

19F006	4.7	A	.30	.24	.20	.15	.113
19F007	6.8	A					
19F008	10.	A					

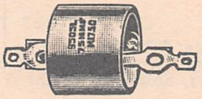
TYPE TCZ ±2% TOLERANCE

19F009	12.	A	.30	.24	.20	.15	.113
19F010	15.	A					
19F011	18.	A					
19F012	20.	A					
19F013	22.	A					
19F014	24.	A					
19F015	27.	A					
19F016	30.	A					
19F017	33.	A					
19F018	36.	A					
19F019	39.	A					
19F020	43.	B					
19F021	47.	B					
19F022	51.	B					
19F023	56.	B					
19F024	62.	B					
19F025	68.	B					
19F026	75.	B					
19F027	82.	B					
19F028	91.	C					
19F029	100.	C					

TYPE TCZ ±5% TOLERANCE

19F030	110.	D	.45	.36	.30	.225	.169
19F031	120.	D					
19F032	130.	D					
19F033	150.	D					
19F034	160.	D					
19F035	180.	D					
19F036	200.	D					
19F037	220.	D					
19F038	240.	E	.60	.48	.40	.30	.225
19F039	270.	E					
19F040	300.	E					

CENTRALAB CERAMIC TRANSMITTING CAPACITORS



Types 850 and 858—7.5 KV and 5 KV transmitting capacitors. All 7500 VDC working except (*) 5000 VDC working. Type 850 ±10% tolerance, Type 858 ±20% tolerance. ‡ Hi-K material, variable T.C. Body ¹³⁄₁₆" diameter x ⅝" long.

SOLDER LUG

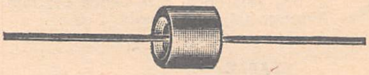
Stk. No.	Type	Mmf	RF Load at 30MC	1-9	10-24	25-99	100-249
19F243	850SL-25Z	25	7 amps	2.70	2.25	2.14	1.93
19F244	850SL-50Z	50	10 amps				
19F245	850SL-50N	50	8.8 amps				
19F246	850SL-75N	75	10 amps				
19F247	850SL-100N*	100	9.8 amps				

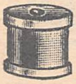
SCREW TERMINALS

19F248	850S-25Z	25	7 amps	2.70	2.25	2.14	1.93
19F249	850S-50Z	50	10 amps				
19F250	850S-50N	50	8.8 amps				
19F251	850S-75N	75	10 amps				
19F252	850S-100N*	100	9.8 amps				
19F253	858S-500*‡	500					
19F254	858S-1000*‡	1000					

CENTRALAB CERAMIC TRANSMITTING CAPACITORS

High voltage applications. Types 853-5KV, 854-5KV, and 855-5KV work on 5000 volts DC, tested to 7500 volts DC. ±10% tolerance. Available in either wire lead or axial screw terminal types. NPO zero temperature coefficients except *, which are Neg., 750 T. C. Type 853 body is 9/16" dia. x 1/2" long, Type 854 is 7/16x7/16", Type 855 is 5/16x3/8". Wt., 3 oz.





WIRE LEAD

Stk. No.	Type	Mmf.	RF Load at 30MC	NET EACH 1-9	10-24	25-99	100-249
19F268	855-3Z	3	1.8 amps	1.80	1.62	1.43	1.28
19F270	854-10Z	10	1.8 amps				
19F271	855-10N*	10	3.2 amps				
19F272	853-20Z	20	2.8 amps				
19F274	853-40N*	40	5.6 amps				

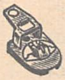
SCREW TERMINAL

Stk. No.	Type	Mmf.	RF Load at 30MC	NET EACH 1-9	10-24	25-99	100-249
19F291	855A-3Z	3	1.8 amps	1.80	1.62	1.43	1.28
19F292	855A-5Z	5	1.8 amps				
19F293	854A-10Z	10	1.8 amps				
19F294	855A-10N*	10	3.2 amps				
19F295	853A-20Z	20	2.8 amps				
19F296	854A-20N*	20	3.2 amps				
19F297	853A-40N*	40	5.6 amps				

CENTRALAB CERAMIC TRIMMERS

Centralab ceramic trimmers are highly stable, small in size, and light weight. Light-weight rotor under constant spring pressure provides excellent vibration stability. All units 600 VDC working, 1200 VDC test. Power factor less than 0.2%.

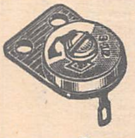
CRL TYPE 820 TRIMMERS



Small, lightweight, convenient mounting units have wide capacity ranges. High dielectric ceramic base is impervious to moisture. Mounting holes, less bracket, clear No. 4 machine screws. Flat optically ground rotor and stator surfaces insure dependability and accurate retrace. Rated 500 VDCW, 1500 VDC test. Power factor less than 0.2% @ 1 megacycle. Size: 5/8x27/32" lg. *Less mtg. bracket. Shpg. wt., 2 oz.

Stk. No.	Type	Cap. Mmf.	1-9	10-24	25-99	100-249
19F156	820D	1.0 to 3.5	.78	.65	.618	.52
19F157	820A	2.5 to 6.0				
19F158	820B	5.0 to 20.0				
19F159	820C	7.0 to 35.0				
19F160	*820E	35.0 to 55.0				
19F161	*820F	55.0 to 75.0				
19F162	*820G	70.0 to 90.0				

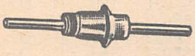
CRL TYPE 827 TRIMMER



Sturdy, moisture-resistant ceramic trimmers. Ceramic molded phenolic body. Maintain stability under vibration, due to light weight rotor construction that is always in balance under heavy spring pressure. 500 volts DC working, 1000 volts DC test. Initial insulation resistance, 10,000 megs minimum. Power factor is less than 0.2% at one MC. Size: 17/32x3/4". Wt., 2 oz.

Stk. No.	Type	Mmf	1-9	10-24	25-99	100-249
19F094	827A	2.5-7	.75	.625	.594	.50
19F095	827B	3.5-12				
19F096	827C	6.0-30				
19F097	827D	7.0-35				

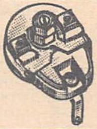
CRL TYPE MFT FEED-THRU CAPACITORS



Miniature eyelet type, rated 500 VDC working, 1000 VDC test. Mounts on 1/4" flange on eyelet inserted in .160" hole in chassis. Body diam. .135x1 3/8" lg. overall. Shipping wt., 1 oz.

Stk. No.	Type	Mmf	1-24	25-99	100-249	250-499	500-999
19F1120	MFT-50	50±10%	.30	.238	.20	.15	.113
19F1121	MFT-100	100±10%					
19F1122	MFT-500	500±20%					
19F1123	MFT-1000	1000 GMV					

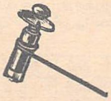
CRL TYPE 823 TRIMMERS



Type 823. All are zero temperature coefficient except * negative 650 T. C. 15/16x1 9/32" long. Shipping weight, 3 oz.

Stk. No.	Type	Mmf	1-9	10-24	25-99	100-249
19F280	EZ	5.0-12	3.60	3.00	2.85	2.40
19F281	DZ	6-25				
19F282	BZ	10-50				
19F283	AZ	12-62				
19F285	EN*	8-25				
19F286	DN*	8-50				
19F287	BN*	10-100				
19F288	AN*	20-125				

CRL TYPE 829 TUBULAR TRIMMER



Tiny tubular high-voltage trimmers for TV and FM applications. Have ceramic bodies, .152" in diameter. Length as shown. Mount by means of lock-nut. Full capacity range obtained in 180° rotation. Power factor less than 2% at 1 mc. 500 volts DC working. 1000 VDC test. Shpg., wt., 1 oz.

Stk. No.	Type	Mmf	Length	1-24	25-99	100-249	250-499	500-999
19F170	829-3	.5-3	1/2"	.30	.24	.20	.15	.113
19F171	829-4	1-4	1/2"					
19F172	829-6	1-6	5/8"					
19F173	829-7	1-7.5	3/4"					
19F174	829-10	1.5-10	3/4"					

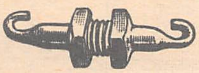
Note: Items requiring certified test data and government source inspection are special. Prices and information upon request.

CRL TYPE 825 MIL-C-81A TRIMMER CAPACITORS

Ceramic trimmer caps. Size 27/32"Lx41/64"W. Mtg. hole takes No. 4 screws. 500 VDC working. Shpg. wt., 2 oz. CVII Series meet MIL-C-81A specifications. Low loss steatite base and silver fired base for stator plate. * —650 temp. coef. (Others 0).

Stock No.	Type	Mmf.	MIL No.	1-9	10-24	25-99	100-249
19F1217	825-EZ	1.5-7	CVIIA070	1.05	.875	.83	.70
19F1218	825-FZ	3-12	CVIIA120				
19F1219	825-AZ	4.5-25	CVIIA250				
19F1220	825-DN*	2-6	CVIID060				
19F1222	825-BN*	7-45	CVIID450				

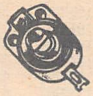
CRL TYPE FT FEED-THRU CAPACITORS



Bushing type ceramic feed-thru capacitators, rated 500 VDC working, 1000 VDC test. Bushing 12-28 thread hex nut .281" lg. Overall size 5/16" hex x 1 5/32" lg. Tolerance ±20% except when marked by an asterisk, indicates a tolerance of +50%, —20%. Shpg. wt., 2 oz.

Stk. No.	Type	Mmf	1-24	25-99	100-249	250-499	500-999
19F1115	FT-500	500	.75	.594	.50	.375	.281
19F1116	FT-1000	1000					
19F1117	FT-1500	1500*					
19F1118	FT-1800	1800*					
19F1119	FT-2300	2300*					

CRL TYPE 822 TRIMMERS



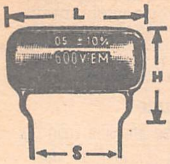
Type 822. Steatite body trimmers. Silver rotor and stator plates. 500 VDC working 1500 VDC test. 41/64x27/32". Mtg. holes take No. 4 screws. All are zero temp. coeff. except * neg. T.C. Shpg. wt., 2 oz.

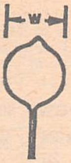
Stk. No.	Type	Mmf	1-9	10-24	25-99	100-249
19F163	AN*	8.0-50	1.14	.95	.90	.76
19F164	BN*	7-45				
19F165	CN*	4.5-25				
19F166	DN*	2-6				
19F167	AZ	4.5-25				
19F168	BZ	2.5-13				
19F169	CZ	2-7.5				
19F185	DZ	1.5-3				
19F186	EZ	1.5-7				
19F188	EN*	4-30				
19F189	FZ	3-12				

NEWARK'S field personnel work closely with the manufacturers of Electronic components to keep up with the modern needs of its customers in today's complex electronic world.

CAPACITORS ARCO — ELMENCO

ELMENCO DP TUBULARS





DP Tubulars are Mylar paper dielectric non-inductively wound and vacuum dipped to obtain solid impregnation and rugged moisture-resistant coat. Leads are axial and crimped to facilitate use in printed circuits. Will operate at 125°C at full rated voltage. Leads are tinned copper #20 gauge and are 1⅝" min. below the crimp. Standard tolerance is ±10%.

DIMENSIONS FOR DP TYPE CAPACITORS

Type	L	H	W	S
DP-1	¾	1 1/16	7/16	¼
DP-2	⅞	¾	½	7/16
DP-3	1¼	⅞	⅝	23/32
DP-4	1 11/32	15/16	1 1/16	27/32
DP-5	1 9/16	1 1/16	⅞	1 3/32

100 DCWV

Stk. No.	Type	Mfd.	1-24	25-99	100-499	500-999	1000-up
14F1000	1DP-1-502	.005	.21	.19	.126	.105	.095
14F1001	1DP-1-602	.006					
14F1002	1DP-1-682	.0068					
14F1003	1DP-1-752	.0075					
14F1004	1DP-1-103	.01					
14F1005	1DP-1-153	.015					
14F1006	1DP-1-203	.02					
14F1007	1DP-1-223	.022					
14F1008	1DP-1-253	.025					
14F1009	1DP-1-303	.03					
14F1010	1DP-2-333	.033					
14F1011	1DP-2-403	.04	.24	.22	.144	.12	.108
14F1012	1DP-2-473	.047					
14F1013	1DP-2-503	.05					
14F1014	1DP-2-563	.056					
14F1015	1DP-2-683	.068					
14F1016	1DP-2-753	.075	.27	.24	.162	.135	.112
14F1017	1DP-2-104	.1	.27	.24	.162	.135	.112
14F1018	1DP-3-154	.15	.27	.24	.162	.135	.112
14F1019	1DP-3-204	.2	.30	.27	.18	.15	.135
10F1020	1DP-3-224	.22	.30	.27	.18	.15	.135
14F1021	1DP-3-254	.25	.33	.30	.198	.165	.149

200 DCWV

Stk. No.	Type	Mfd.	1-24	25-99	100-499	500-999	1000-up
14F1022	2DP-3-104	.1	.21	.19	.126	.105	.095
14F1023	2DP-3-154	.15	.24	.22	.144	.12	.108
14F1024	2DP-4-204	.2	.27	.24	.162	.135	.122
14F1025	2DP-4-224	.22	.27	.24	.162	.135	.122
14F1026	2DP-4-254	.25	.30	.27	.18	.15	.135
14F1027	2DP-5-334	.33	.36	.32	.216	.18	.162
14F1028	2DP-5-474	.47	.45	.41	.27	.225	.203
14F1029	2DP-5-504	.5	.45	.41	.27	.225	.203

400 DCWV

Stk. No.	Type	Mfd.	1-24	25-99	100-499	500-999	1000-up
14F1030	4DP-1-103	.01	.15	.14	.09	.075	.068
14F1031	4DP-1-153	.015	.15	.14	.09	.075	.068
14F1032	4DP-2-203	.02	.15	.14	.09	.075	.068
14F1033	4DP-2-223	.022	.18	.16	.108	.09	.081
14F1034	4DP-2-253	.025					
14F1035	4DP-2-303	.03					
14F1036	4DP-2-333	.033					
14F1037	4DP-3-403	.04					
14F1038	4DP-3-473	.047	.21	.19	.126	.105	.095
14F1039	4DP-3-503	.05	.21	.19	.126	.105	.095
14F1040	4DP-3-563	.056	.21	.19	.126	.105	.095
14F1041	4DP-3-683	.068	.24	.22	.144	.12	.108
14F1042	4DP-3-753	.075	.24	.22	.144	.12	.108
14F1043	4DP-3-104	.1	.24	.22	.144	.12	.108
14F1044	4DP-4-154	.15	.27	.24	.162	.135	.122
14F1045	4DP-4-204	.2	.33	.30	.198	.165	.149
14F1046	4DP-5-224	.22	.33	.30	.198	.165	.149
14F1047	4DP-5-254	.25	.36	.32	.216	.18	.162
14F1048	4DP-5-274	.27	.36	.32	.216	.18	.162

600 DCWV

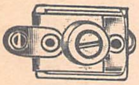
Stk. No.	Type	Mfd.	1-24	25-99	100-499	500-999	1000-up
14F1049	6DP-1-102	.001	.15	.14	.09	.075	.068
14F1050	6DP-1-122	.0012					
14F1051	6DP-1-152	.0015					
14F1052	6DP-1-202	.002					
14F1053	6DP-1-222	.0022					
14F1054	6DP-1-252	.0025					

600 DCWV CONTINUED

Stk. No.	Type	Mfd.	1-24	25-99	100-499	500-999	1000-up
14F1055	6DP-1-272	.003	.15	.14	.09	.075	.068
14F1056	6DP-1-302	.0033					
14F1057	6DP-1-332	.0027					
14F1058	6DP-1-392	.0039					
14F1059	6DP-1-402	.004					
14F1060	6DP-1-472	.0047					
14F1061	6DP-1-502	.005					
14F1062	6DP-1-562	.0056					
14F1063	6DP-1-602	.006					
14F1064	6DP-1-682	.0068	.18	.16	.108	.09	.081
14F1065	6DP-2-752	.0075					
14F1066	6DP-2-802	.008					
14F1067	6DP-2-822	.0082					
14F1068	6DP-2-103	.01					
14F1069	6DP-2-123	.012					
14F1070	6DP-2-153	.015					
14F1071	6DP-2-203	.02					
14F1072	6DP-2-223	.022					
14F1073	6DP-3-253	.025	.21	.19	.126	.105	.095
14F1074	6DP-3-273	.027					
14F1075	6DP-3-303	.03					
14F1076	6DP-3-333	.033					
14F1077	6DP-3-393	.039					
14F1078	6DP-3-403	.04					
14F1079	6DP-3-473	.047	.24	.22	.144	.12	.108
14F1080	6DP-3-503	.05					
14F1081	6DP-3-563	.056					
14F1082	6DP-3-603	.06	.27	.24	.162	.135	.122
14F1083	6DP-4-683	.068					
14F1084	6DP-4-753	.075					
14F1085	6DP-4-823	.082					
14F1086	6DP-4-104	.1					
14F1087	6DP-5-154	.15	.36	.32	.216	.18	.162
14F1088	6DP-5-204	.2	.42	.38	.252	.21	.189
14F1089	6DP-5-224	.22	.42	.38	.252	.21	.189
14F1090	6DP-5-254	.25	.45	.41	.27	.225	.203

1600 DCWV

Stk. No.	Type	Mfd.	1-24	25-99	100-499	500-999	1000-up
14F1091	16DP-2-102	.001	.24	.22	.144	.12	.108
14F1092	16DP-2-152	.0015					
14F1093	16DP-2-182	.0018					
14F1094	16DP-2-202	.002					
14F1095	16DP-2-222	.0022					
14F1096	16DP-2-252	.0025	.27	.24	.162	.135	.122
14F1097	16DP-2-302	.003					
14F1098	16DP-2-332	.0033					
14F1099	16DP-2-402	.004					
14F1100	16DP-2-472	.0047					
14F1101	16DP-2-502	.005					
14F1102	16DP-3-602	.006	.30	.27	.18	.15	.135
14F1103	16DP-3-702	.007					
14F1104	16DP-3-752	.0075					
14F1105	16DP-3-802	.008					
14F1106	16DP-3-103	.01					
14F1107	16DP-4-153	.015	.33 .36	.30 .32	.198 .216	.165 .18	.149 .162
14F1108	16DP-4-203	.02	.42	.38	.252	.21	.189
14F1109	16DP-5-223	.022					
14F1110	16DP-5-253	.025					
14F1111	16DP-5-303	.03					
14F1112	16DP-5-333	.033					
14F1113	16DP-5-403	.04	.45	.41	.27	.225	.203
14F1114	16DP-5-473	.047	.48	.43	.288	.24	.216
14F1115	16DP-5-503	.05	.48	.43	.288	.24	.216



EL MENCO QUALITY TRIMMERS

Treated for resistance to humidity and for permanence of cap. setting. Low dielectric loss bases, micas are clear India ruby. Voltage 350 VDCT—175 VDCW. Shipping weight 3 ounces.

TYPE 46 MICA TRIMMERS

Stk. No.	Type	Plts.	Range Mmf.	1-24	25-99	100-499
14F818	460	1¼	15-1.5	.24	.22	.144
14F819	461	1¾	30-2.7	.24	.22	.144
14F820	462	2	80-5	.27	.24	.162
14F821	463	3	180-9	.30	.27	.18
14F822	464	4	280-25	.33	.30	.198
14F823	465	5	380-50	.36	.32	.216
14F824	466	6	480-80	.39	.35	.234
14F825	467	7	580-110	.45	.41	.27
14F826	468	8	680-140	.48	.43	.288
14F827	469	9	780-170	.51	.46	.306

TYPE 42 MIDGET TRIMMERS

Stk. No.	Type	Plts.	Range Mmf.	25-99	25-99	100-499
14F960	420	1⅛	12-1	.24	.22	.144
14F961	421	1¾	25-2	.24	.22	.144
14F962	422	2	40-4	.27	.24	.162
14F963	423	3	100-7	.30	.27	.18
14F964	424	4	150-14	.33	.30	.198
14F965	425	5	200-24	.36	.32	.216
14F966	426	6	250-37	.39	.35	.234
14F967	427	7	300-55	.45	.41	.27
14F968	428	8	350-70	.48	.43	.288
14F969	429	9	400-90	.51	.46	.306

MOUNTING BRACKETS

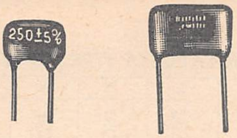
Stk. No.	For	1-24	25-99	100-499
14F831	2	.11	.10	.065
14F832	3	.13	.11	.076
14F833	4	.14	.13	.060
14F834	5	.16	.15	.098
14F835	6	.18	.16	.108

TYPE 40 MINIATURE TRIMMERS

Stk. No.	Type	Plts.	Range Mmf.	1-24	25-99	100-499
14F836	400	1⅛	7-0.9	.24	.22	.144
14F837	402	2	20-1.5	.27	.24	.162
14F838	403	3	35-3	.30	.27	.18
14F839	404	4	60-8	.33	.30	.198

ARCO – ELMENCO CAPACITORS

NEWARK SUPPLIES
COMPLETE LINES



DUR-MICA CAPACITORS

The Dur-Mica is a silvered mica capacitor with a plastic coating. It combines excellence in stability, dielectric strength, "Q", dielectric constant, chemical inertness, moisture resistance and puncture resistance. Operating temperature range —55°C to 150°C. Capacitors meet all electrical and environmental specifications of MIL-C-5 and EIA Specification RS-153. Standard tolerance ±5% except (*) .5mmf tolerance (**) ±10%. Shpg. wt., 1 oz. except DM-10, ½ ounce.

TYPE DM-10 DCWV 500

Stk. No.	Type	Mmf	1-24	25-99	100-499	500-999	1000-up
14F1150	DM10-010	1*	.18	.16	.11	.09	.081
14F1151	DM10-020	2*					
14F1152	DM10-030	3*					
14F1153	DM10-050K	5**					
14F1154	DM10-100J	10	.20	.18	.12	.099	.09
14F1155	DM10-120J	12	.23	.21	.14	.117	.105
14F1156	DM10-150J	15					
14F1157	DM10-180J	18					
14F1158	DM10-200J	20					
14F1159	DM10-220J	22					
14F1160	DM10-240J	24					
14F1161	DM10-270J	27					
14F1162	DM10-300J	30					
14F1163	DM10-330J	33					
14F1164	DM10-360J	36					
14F1165	DM10-390J	39					
14F1166	DM10-430J	43					
14F1167	DM10-470J	47	.26	.24	.16	.132	.119
14F1168	DM10-500J	50					
14F1169	DM10-510J	51					
14F1170	DM10-560J	56					
14F1171	DM10-620J	62					
14F1172	DM10-680J	68					
14F1173	DM10-750J	75					
14F1174	DM10-820J	82					
14F1175	DM10-910J	91					
14F1176	DM10-101J	100					
14F1177	DM10-111J	110					
14F1178	DM10-121J	120	.30	.27	.18	.15	.135
14F1179	DM10-131J	130	.30	.27	.18	.15	.135
14F1180	DM10-151J	150	.33	.30	.20	.165	.149
14F1181	DM10-161J	160	.37	.33	.22	.183	.165
14F1182	DM10-181J	200	.40	.36	.238	.198	.179
14F1183	DM10-201J	180	.40	.36	.238	.198	.179
14F1184	DM10-221J	220	.43	.39	.259	.216	.195
14F1185	DM10-241J	240	.46	.42	.277	.231	.208
14F1186	DM10-251J	250	.46	.42	.277	.231	.208

TYPE DM-10 DCWV 300

Stk. No.	Type	Mmf	1-24	25-99	100-499	500-999	1000-up
14F1187	DM10-271J	270	.46	.42	.28	.231	.208
14F1188	DM10-301J	300	.50	.45	.30	.249	.225

TYPE DM-10 DCWV 100

Stk. No.	Type	Mmf	1-24	25-99	100-499	500-999	1000-up
14F1189	DM10-331J	330	.50	.45	.30	.249	.225
14F1190	DM10-361J	360	.53	.48	.32	.264	.238
14F1200	DM10-391J	390	.56	.51	.34	.282	.254

TYPE DM-15 DCWV 300

Stk. No.	Type	Mmf	1-24	25-99	100-499	500-999	1000-up
14F591	DM15-431J	430	.37	.33	.22	.183	.165
14F592	DM15-471J	470	.40	.36	.24	.198	.179
14F593	DM15-501J	500	.40	.36	.24	.198	.179
14F594	DM15-511J	510	.40	.36	.24	.198	.179
14F595	DM15-561J	560	.43	.39	.26	.216	.195
14F596	DM15-621J	620	.46	.42	.28	.231	.208
14F597	DM15-681J	680	.50	.45	.30	.249	.225
14F598	DM15-751J	750	.53	.48	.32	.264	.238
14F599	DM15-821J	820	.56	.51	.34	.282	.254

TYPE DM-15 DCWV 500

Stk. No.	Type	Mmf	1-24	25-99	100-499	500-999	1000-up
14F549	DM15-010	1*	.15	.14	.09	.075	.068
14F550	DM15-020	2*					
14F551	DM15-030	3*					
14F552	DM15-050	5*					
14F553	DM15-100J	10	.17	.15	.10	.084	.076
14F554	DM15-120J	12					
14F555	DM15-150J	15					
14F556	DM15-180J	18					
14F557	DM15-200J	20					
14F558	DM15-220J	22					
14F559	DM15-240J	24					
14F560	DM15-270J	27					
14F561	DM15-300J	30					
14F562	DM15-330J	33					
14F563	DM15-360J	36					
14F564	DM15-390J	39					
14F565	DM15-430J	43					
14F566	DM15-470J	47					
14F567	DM15-500J	50					
14F568	DM15-510J	51					
14F569	DM15-560J	56					
14F570	DM15-620J	62					
14F571	DM15-680J	68					
14F572	DM15-750J	75					
14F573	DM15-820J	82					
14F574	DM15-910J	91					
14F575	DM15-101J	100					
14F576	DM15-111J	110	.20	.18	.12	.099	.09
14F577	DM15-121J	120	.20	.18	.12	.099	.09
14F578	DM15-131J	130	.20	.18	.12	.099	.09

TYPE DM-15 DCWV 500 CONTINUED

Stk. No.	Type	Mmf	1-24	25-99	100-499	500-999	1000-up
14F579	DM15-151J	150	.20	.18	.12	.099	.09
14F580	DM15-161J	160	.23	.21	.14	.117	.105
14F581	DM15-181J	180	.23	.21	.14	.117	.105
14F582	DM15-201J	200	.23	.21	.14	.117	.105
14F583	DM15-221J	220	.26	.24	.18	.132	.119
14F584	DM15-241J	240	.26	.24	.158	.132	.119
14F585	DM15-251J	250	.26	.24	.158	.132	.119
14F586	DM15-271J	270	.30	.27	.18	.15	.135
14F587	DM15-301J	300	.30	.27	.18	.15	.135
14F588	DM15-331J	330	.33	.27	.30	.165	.149
14F589	DM15-361J	360	.33	.27	.20	.165	.149
14F590	DM15-391J	390	.37	.33	.22	.183	.165
†14F1116	DM15-911J	910	.63	.57	.38	.315	.184
†14F1117	DM15-102J	1000	.66	.60	.40	.33	.303

*DCWV 100

TYPE DM-19 DCWV 500

Stk. No.	Type	Mmf	1-24	25-99	100-499	500-999	1000-up
14F450	DM19-101J	100	.168	.151	.101	.084	.076
14F451	DM19-111J	110	.20	.18	.12	.10	.10
14F452	DM19-121J	120					
14F453	DM19-131J	130					
14F454	DM19-151J	150					
14F455	DM19-161J	160					
14F456	DM19-181J	180					
14F457	DM19-201J	200					
14F458	DM19-221J	220					
14F459	DM19-241J	240	.23	.21	.14	.117	.105
14F460	DM19-251J	250	.23	.21	.14	.117	.105
14F461	DM19-271J	270	.26	.24	.16	.132	.119
14F462	DM19-301J	300	.26	.24	.16	.132	.119
14F463	DM19-331J	330	.26	.24	.16	.132	.119
14F464	DM19-361J	360	.30	.27	.18	.15	.135
14F465	DM19-391J	390	.30	.27	.18	.15	.135
14F466	DM19-431J	430	.30	.27	.18	.15	.135
14F467	DM19-471J	470	.33	.30	.20	.165	.149
14F468	DM19-501J	500	.33	.30	.20	.165	.149
14F469	DM19-511J	510	.33	.30	.20	.165	.149
14F470	DM19-561J	560	.37	.33	.22	.183	.165
14F471	DM19-621J	620	.37	.33	.22	.183	.165
14F472	DM19-681J	680	.40	.36	.24	.198	.179
14F473	DM19-751J	750	.40	.36	.24	.198	.179
14F474	DM19-821J	820	.40	.36	.24	.198	.179
14F475	DM19-911J	910	.43	.39	.26	.216	.195
14F476	DM19-102J	1000	.46	.42	.28	.231	.208
14F477	DM19-112J	1100	.46	.42	.28	.231	.208
14F478	DM19-122J	1200	.50	.45	.30	.249	.225
14F479	DM19-132J	1300	.53	.48	.32	.264	.238
14F480	DM19-152J	1500	.56	.51	.34	.282	.254
14F481	DM19-162J	1600	.59	.54	.36	.297	.268
14F482	DM19-182J	1800	.66	.59	.40	.33	.303
14F483	DM19-202J	2000	.73	.65	.44	.363	.327
14F484	DM19-222J	2200	.79	.71	.48	.396	.357
14F1201	DM19-242J	2400	.86	.77	.52	.429	.387
14F1202	DM19-252J	2500	.89	.81	.54	.447	.403
14F1203	DM19-272J	2700	.92	.83	.62	.554	.462
14F1204	DM19-302J	3000	.99	.89	.59	.495	.446
14F1205	DM19-332J	3300	1.06	.95	.63	.528	.476
14F1206	DM19-362J	3600	1.12	1.10	.67	.561	.505
14F1207	DM19-392J	3900	1.19	1.07	.71	.594	.535
14F1208	DM19-432J	4300	1.25	1.13	.75	.627	.565
14F1209	DM19-472J	4700	1.32	1.19	.79	.66	.596
14F1210	DM19-502J	5000	1.39	1.25	.83	.693	.624
14F1211	DM19-510J	5100	1.39	1.25	.83	.693	.624

TYPE DM-20 DCWV 500

Stk. No.	Type	Mmf	1-24	25-99	100-499	500-999	1000-up
14F600	DM20-681J	680	.33	.30	.20	.165	.149
14F601	DM20-751J	750	.33	.30	.20	.165	.149
14F602	DM20-821J	820	.33	.30	.20	.165	.149
14F603	DM20-911J	910	.37	.33	.22	.183	.165
14F604	DM20-102J	1000	.40	.36	.24	.198	.179
14F605	DM20-112J	1100	.40	.36	.24	.198	.179
14F606	DM20-122J	1200	.45	.39	.26	.216	.195
14F607	DM20-132J	1300	.46	.42	.28	.231	.208
14F608	DM20-152J	1500	.50	.45	.30	.249	.225
14F609	DM20-162J	1600	.53	.46	.32	.264	.238
14F610	DM20-182J	1800	.59	.54	.36	.297	.268
14F611	DM20-202J	2000	.63	.57	.38	.315	.274
14F612	DM20-222J	2200	.70	.62	.42	.348	.314
14F613	DM20-242J	2400	.73	.65	.44	.363	.327
14F614	DM20-252J	2500	.73	.65	.44	.363	.327
14F615	DM20-272J	2700	.79	.71	.48	.396	.357
14F616	DM20-302J	3000	.86	.77	.52	.429	.387
14F617	DM20-332J	3300	.93	.83	.55	.462	.416
14F618	DM20-362J	3600	.99	.89	.59	.495	.416
14F619	DM20-392J	3900	1.06	.95	.63	.528	.476
14F620	DM20-432J	4300	1.12	1.10	.67	.561	.505
14F621	DM20-472J	4700	1.19	1.07	.71	.594	.535

Type DM-20 DCWV 500—Continued on next page.

CAPACITORS ARCO – ELMENCO

DUR-MICA CAPACITORS CONTINUED

TYPE DM 20—DCWV 500 (CONTINUED)

Stk. No.	Type	Mmf.	1-24	25-99	100-499	500-999	1000 and up
14F622	DM20-502J	5000	1.25	1.13	.75	.627	.565
14F623	DM20-512J	5100	1.29	1.16	.77	.645	.581
14F1118	DM20-562J	5600	1.32	1.19	.79	.66	.596
14F1119	DM20-622J	6200	1.32	1.19	.79	.66	.596
14F1120	DM20-682J	6800	1.39	1.25	.83	.693	.624
14F1121*	DM20-752J	7500	1.45	1.31	.87	.726	.653
14F1122*	DM20-822J	8200	1.58	1.43	1.06	.950	.790
14F1212*	DM20-912J	9100	1.76	1.59	1.17	8.88	.801
14F1213*	DM20-103J	10000	1.98	1.78	1.19	.99	.891

*DCWV 100

TYPE DM 30—DCWV 100

14F1219	DM30-333J	33000	5.45	4.90	3.27	2.724	2.452
14F1220	DM30-363J	36000	5.94	5.35	3.56	2.97	2.673

TYPE DM 30—DCWV 300

14F1214	DM30-223J	22000	3.76	3.39	2.61	1.881	1.693
14F1215	DM30-243J	24000	4.16	3.75	2.44	2.031	1.828
14F1216	DM30-253J	25000	4.22	3.80	2.54	2.112	1.901
14F1217	DM30-273J	27000	4.52	4.07	2.71	2.362	2.126
14F1218	DM30-303J	30000	4.75	4.28	3.00	2.475	2.228

TYPE DM 30—DCWV 500

14F1221	DM30-432J	4300	1.06	.95	.63	.528	.475
14F1222	DM30-472J	4700	1.12	1.10	.67	.561	.505
14F1223	DM30-502J	5000	1.16	1.04	.70	.579	.521
14F1224	DM30-512J	5100	1.16	1.04	.70	.579	.521
14F1225	DM30-562J	5600	1.19	1.07	.71	.594	.535
14F1226	DM30-622J	6200	1.25	1.13	.75	.627	.565
14F1227	DM30-682J	6800	1.39	1.25	.83	.693	.624
14F1228	DM30-752J	7500	1.52	1.37	.91	.759	.683
14F1229	DM30-822J	8200	1.65	1.49	.99	.825	.742
14F1230	DM30-912J	9100	1.78	1.60	1.07	.891	.802
14F1231	DM30-103J	10000	1.98	1.78	1.88	.99	.891
14F1232	DM30-123J	12000	2.31	2.08	1.39	1.155	1.104
14F1233	DM30-133J	13000	2.48	2.23	1.49	1.239	1.116
14F1234	DM30-153J	15000	2.81	2.53	1.69	1.404	1.264
14F1235	DM30-163J	16000	2.97	2.67	1.78	1.485	1.337
14F1236	DM30-183J	18000	3.30	2.97	2.20	1.98	1.65
14F1237	DM30-203J	20000	3.63	3.27	2.18	1.815	1.634

TYPE DM42—DCWV 100

Stk. No.	Type	Mmf.	1-24	25-99	100-499	500-999	1000 and up
14F1240	DM42-683J	68000	10.20	9.10	6.12	5.10	4.59
14F1241	DM42-753J	75000	11.22	10.10	6.53	5.61	5.049
14F1242	DM42-823J	82000	12.24	11.02	7.34	6.12	5.508

TYPE DM42—DCWV 300

14F1238	DM42-563J	56000	8.52	7.67	7.11	4.26	3.834
14F1239	DM42-623J	62000	9.36	8.32	5.62	4.68	4.212

TYPE DM42—DCWV 500

14F1243	DM42-103	10000	1.98	1.72	1.19	.99	.891
14F1244	DM42-123	12000	2.34	2.11	1.40	1.17	1.053
14F1245	DM42-133	13000	2.52	2.27	1.51	1.26	1.134
14F1246	DM42-153	15000	2.88	2.59	1.73	1.44	1.296
14F1247	DM42-163	16000	3.06	2.75	1.84	1.53	1.377
14F1248	DM42-183	18000	3.42	3.08	2.05	1.71	1.639
14F1249	DM42-203	20000	3.78	3.40	2.27	1.89	1.701
14F1250	DM42-223		4.14	3.73	2.48	2.07	1.863
14F1251	DM42-243	24000	4.50	4.05	2.70	2.25	2.025
14F1252	DM42-253	25000	4.68	4.21	2.81	2.34	2.106
14F1253	DM42-273	27000	5.04	4.54	3.02	2.52	2.268
14F1254	DM42-303	30000	5.58	5.02	3.29	2.79	2.511
14F1255	DM42-333	33000	6.12	5.51	3.67	3.06	2.754
14F1256	DM42-363	36000	6.66	5.99	4.00	3.33	2.996
14F1257	DM42-393	39000	7.20	6.48	4.32	3.60	3.24
14F1258	DM42-433	43000	7.80	7.02	4.68	3.90	3.51
14F1259	DM42-473	47000	8.40	7.56	5.04	4.20	3.78
14F1260	DM42-503	50000	8.82	7.94	5.29	4.41	3.969
14F1261	DM42-513	51000	9.00	8.10	5.40	4.50	4.05

ARCO DUR-MICA KITS

Individual clear plastic boxes, labeled for easy handling. **Type CM-15. Kit # 1.** Contains one each of 46 capacitors. Values: 1 mmf.—510 mmf. Shpg. wt. 1¼ lbs.

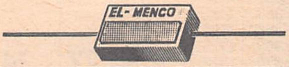
14F830. NET **52.92**

Type DM-15. Kit # 10. Five each of 51 capacitors. Values: 1 mmf.—820 mmf. Tol. ±5%. Shpg. wt., 1½ lbs.

14F840. NET **55.86**

TYPE CM-15 MINIATURE SILVER MICAS

Smallest molded silver micas made. In low-loss phenolic cases, 9⁄32 by ½ by 3⁄16 in. Standard tolerance ±5%; tolerances of ±2% and ±1% available on special order. All are 500 volts DC working except *300 volts DC. *Closest tolerance ±.5 mmf. Wt., 1 oz.

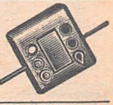


Stk. No.	Mil. No.	Mmf.	1-24	25-99	100-499	500-999	1000-up
14F650*	C010M	1	.24	.22	.14	.12	.108
14F651*	C020M	2					
14F652*	C030M	3					
14F653	C050K	5					
14F654	C100J	10					
14F655	C120J	12					
14F656	C150J	15					
14F657	C180J	18					
14F658	C200J	20					
14F659	C220J	22					
14F660	E240J	24					
14F661	E270J	27					
14F662	E300J	30					
14F663	E330J	33					
14F664	E360J	36					
14F665	E390J	39					
14F666	E430J	43					
14F667	E470J	47					
14F668	E500J	50					
14F669	E510J	51					
14F670	E560J	56					
14F671	E620J	62					
14F672	E680J	68					

Stk. No.	Mil.No.	Mmf.	1-24	25-99	100-499	500-999	1000-up
14F673	E750J	75	.24	.216	.144	.12	.108
14F674	E820J	82	.27	.14	.16	.135	.112
14F675	E910J	91					
14F676	E101J	100					
14F677	E111J	110					
14F678	E121J	120					
14F679	E131J	130					
14F680	E151J	150					
14F681	E161J	160	.30	.27	.18	.15	.135
14F682	E181J	180	.30	.27	.18	.15	.135
14F683	E201J	200	.30	.27	.18	.15	.135
14F684	E221J	220	.33	.30	.20	.165	.149
14F685	E241J	240	.33	.30	.20	.165	.149
14F686	E251J	250	.33	.30	.20	.165	.149
14F687	E271J	270	.36	.32	.22	.18	.162
14F688	E301J	300	.36	.32	.22	.18	.162
14F689	E331J	330	.39	.35	.23	.195	.176
14F690	E361J	360	.42	.38	.25	.21	.198
14F691	E391J	390	.42	.38	.25	.21	.198
14F692	E431J*	430	.45	.41	.27	.225	.203
14F693	E471J*	470	.48	.43	.29	.24	.216
14F694	E501J*	500	.48	.43	.29	.24	.216
14F695	E511J*	510	.48	.43	.29	.24	.216

MOLDED MICA CAPACITORS

Manufactured in accordance with MIL-C-5 specifications and EIA Specification RS-153. Color coded in accordance with MIL-C-5A. MIL-C-5B marking available on special order. Temp. Range: —55°C to 85°C. Vibration frequency: 10 to 2000 cps. Foil micas, ±20% tolerance. Silver micas ±5% tolerance. All are 500 volts DCWV. Av. wt., 1 oz.



SILVERED TYPE CM30 13/16 x 13/16 x 9/32

Stk. No.	Mil.No.	Mmf.	1-24	25-99	100-499	500-999	1000-up
14F903	E511J	510	.42	.38	.25	.21	.189
14F904	E561J	560	.45	.41	.27	.225	.203
14F905	E621J	620	.45	.41	.27	.225	.203
14F906	E681J	680	.48	.43	.29	.24	.216
14F907	E751J	750	.48	.43	.29	.24	.216
14F908	E821J	820	.51	.46	.31	.255	.230
14F910	E911J	910	.54	.49	.32	.27	.243
14F911	E102J	1000	.60	.54	.36	.30	.270
14F912	E112J	1100	.60	.54	.36	.30	.270
14F913	E122J	1200	.69	.62	.41	.345	.311
14F914	E132J	1300	.69	.62	.41	.345	.311
14F915	E152J	1500	.75	.68	.45	.375	.338
14F916	E162J	1600	.75	.68	.45	.375	.338
14F917	E182J	1800	.75	.68	.45	.375	.339
14F918	E202J	2000	.81	.73	.49	.405	.365

Stk. No.	Mil. No.	Mmf.	1-24	25-99	100-499	500-999	1000-up
14F919	E222J	2200	.81	.73	.49	.405	.365
14F920	E242J	2400	.96	.86	.58	.48	.432
14F921	E252J	2500	.96	.86	.58	.48	.432
14F922	E272J	2700	1.08	.97	.65	.54	.486
14F923	E302J	3000	1.14	1.03	.68	.57	.513
14F924	E332J	3300	1.14	1.03	.68	.57	.513
14F925	E362J	3600	1.20	1.08	.72	.60	.540
14F926	E392J	3900	1.20	1.08	.72	.60	.540
14F927	E432J	4300	1.26	1.13	.76	.63	.567
14F928	E472J	4700	1.26	1.13	.76	.63	.567
14F929	E502J	5000	1.29	1.16	.77	.645	.581
14F930	E512J	5100	1.29	1.16	.77	.645	.581
14F931	E562J	5600	1.35	1.22	.81	.675	.608
14F932	E622J	6200	1.44	1.30	.86	.72	.648

ARCO – ELMENCO CAPACITORS

SEVEN WAREHOUSES
TO SERVE YOUR NEEDS

MOLDED MICA CAPACITORS CONTINUED

FOIL TYPE CM30. Size—3/16 x 13/16 x 9/32 in.

Stk. No.	MIL No.	Mmf.	1-24	25-99	100-499	500-999	1000-up
14F753	B511M	510	.18	.16	.11	.09	.081
14F754	B561M	560					
14F755	B621M	620					
14F756	B681M	680					
14F757	B751M	750					
14F758	B821M	820					
14F759	B911M	910					
14F760	B102M	1000	.21	.19	.13	.105	.095
14F761	B112M	1100					
14F762	B122M	1200					
14F763	B132M	1300					
14F764	B152M	1500	.24	.22	.14	.12	.108
14F765	B162M	1600	.24	.22	.14	.12	.108
14F766	B182M	1800	.27	.24	.16	.135	.112
14F767	B202M	2000	.27	.24	.16	.135	.112
14F768	B222M	2200	.27	.24	.16	.135	.112
14F769	B242M	2400	.30	.27	.18	.15	.135
14F770	B252M	2500	.30	.27	.18	.15	.135
14F771	B272M	2700	.30	.27	.18	.15	.135
14F772	B302M	3000	.36	.32	.22	.18	.162
14F733	B332M	3300	.36	.32	.22	.18	.162
14F774	B362M	3600	.36	.32	.22	.18	.162
14F775	B392M	3900	.40	.35	.23	.195	.176
14F776	B432M	4300	.39	.35	.23	.195	.176
14F777	B472M	4700	.39	.35	.23	.195	.176
14F778	B502M	5000	.42	.38	.25	.21	.189
14F779	B512M	5100	.42	.38	.25	.21	.189
14F780	B562M	5600	.42	.38	.25	.21	.189
14F781	B622M	6200	.54	.49	.32	.27	.243

SILVERED TYPE CM20 500 VDCW 25/32 x 7/16 x 7/32 in.

Stk. No.	MIL No.	Mmf.	1-24	25-99	100-999	500-999	1000-up
14F842	C050J	5	.24	.22	.14	.12	.108
14F843	C100J	10					
14F844	C120J	12					
14F845	C150J	15					
14F846	C180J	18					
14F847	C200J	20					
14F848	C220J	22					
14F849	C240J	24					
14F850	C270J	27					
14F851	C300J	30					
14F852	C330J	33					
14F853	C360J	36					
14F854	C390J	39					
14F855	C430J	43					
14F856	C470J	47					
14F857	C500J	50					
14F858	C510J	51					
14F859	C560J	56					
14F860	C620J	62					
14F861	C680J	68					
14F862	C750J	75					
14F863	C820J	82					
14F864	C910J	91					
14F865	C101J	100					
14F866	C111J	110	.27	.24	.16	.135	.112
14F867	C121J	120					
14F868	C131J	130					
14F869	C151J	150					
14F870	C161J	160					
14F871	C181J	180					
14F872	D201J	200					
14F873	D221J	220					
14F874	D241J	240	.33	.30	.20	.165	.149
14F875	D251J	250					
14F876	D271J	270					
14F877	D301J	300					
14F878	D331J	331					
14F879	D361J	360					
14F880	D391J	390	.39	.35	.23	.195	.176
14F881	D431J	430	.39	.35	.23	.195	.176
14F882	D471J	470	.42	.38	.25	.21	.189
14F883	D501J	500					
14F884	D511J	510					
14F885	D561J	560	.45	.41	.27	.225	.203
14F886	D621J	620	.45	.41	.27	.225	.203
14F887	D681J	680	.48	.43	.29	.24	.216
14F888	D751J	750	.48	.43	.29	.24	.216
14F889	D821J	820	.51	.46	.31	.255	.230
14F890	D911J	910	.51	.46	.31	.255	.230
14F891	E102J	1000	.54	.49	.32	.27	.243
14F892	E112J	1100	.54	.49	.32	.27	.243
14F893	E122J	1200	.60	.54	.36	.30	.27
14F894	E132J	1300	.60	.54	.36	.30	.27
14F895	E152J	1500	.66	.59	.40	.33	.297
14F896	E162J	1600	.66	.59	.40	.33	.297
14F897	E182J	1800	.72	.65	.43	.36	.324
14F898	E202J	2000	.78	.70	.47	.39	.351

FOIL TYPE CM20 500 VDCW 25/32 x 7/16 x 7/32 in.

Stk. No.	MIL No.	Mmf.	1-24	25-99	100-499	500-999	1000-up
14F696	B050M	5	.18	.16	.11	.09	.081
14F697	B100M	10					
14F698	B120M	12					
14F699	B150M	15					
14F700	B180M	18					
14F701	B200M	20					
14F702	B220M	22					
14F703	B240M	24					
14F704	B270M	27					
14F705	B300M	30					
14F706	B330M	33	.12	.11	.07	.06	.054
14F707	B360M	36					
14F708	B390M	39					
14F709	B430M	43					
14F710	B470M	47					
14F711	B500M	50					
14F712	B510M	51					
14F713	B560M	56					
14F714	B620M	62					
14F715	B680M	68					
14F716	B750M	75					
14F717	B820M	82					
14F718	B910M	91					
14F719	B101M	100					
14F720	B111M	110					
14F721	B121M	120					
14F722	B131M	130	.15	.14	.09	.075	.068
14F723	B151M	150					
14F724	B161M	160					
14F725	B181M	180					
14F726	B201M	200					
14F727	B221M	220					
14F728	B241M	240	.18	.16	.11	.09	.081
14F729	B251M	250					
14F730	B271M	270					
14F731	B301M	300					
14F732	B331M	330					
14F733	B361M	360					
14F734	B391M	390					
14F735	B431M	430					
14F736	B471M	470					
14F737	B501M	500					
14F738	B511M	510					
14F739	B561M	560	.21	.19	.13	.105	.095
14F740	B621M	620					
14F741	B681M	680					
14F742	B751M	750					
14F743	B821M	820	.24	.22	.14	.12	.108
14F744	B911M	910	.27	.24	.16	.135	.112
14F745	B102M	1000	.27	.24	.16	.135	.112
14F746	B112M	1100	.30	.27	.18	.15	.135
14F747	B122M	1200					
14F748	B132M	1300					
14F749	B152M	1500	.36	.32	.22	.18	.162
14F750	B162M	1600	.36	.32	.22	.18	.162
14F751	B182M	1800	.42	.38	.25	.21	.189
14F752	B202M	2000	.42	.41	.27	.225	.203

TYPE 30 MICA PADDERS

Made of the finest quality clear India ruby mica. Phosphor bronze adjusting plates assure permanent resilience and freedom from mechanical fatigue. All parts are heavily plated; mica film completely enclosed. Rated 500 volts DC flash. 250 volts DC working. Size 7/8 by 15/16 in. Shpg. wt., 3 oz.

Stk. No.	Type	Plates	Range Mmf.	1-24	25-99	100-499
14F804	302	2	130-15	.48	.43	.29
14F805	303	3	340-65	.51	.46	.31
14F806	304	4	550-100	.54	.49	.32
14F807	305	5	760-190	.60	.54	.36
14F808	306	6	970-275	.66	.59	.44
14F809	307	7	1180-350	.72	.65	.43
14F810	308	8	1390-450	.75	.68	.45

No.	Type	Plates	Range Mmf.	1-24	25-99	100-499
14F811	309	9	1600-550	.81	.73	.49
14F812	310	10	1890-650	.87	.78	.52
14F813	311	11	2110-780	.93	.84	.56
14F814	312	12	2330-880	.99	.89	.59
14F815	313	13	2605-1150	1.05	.95	.63
14F816	314	14	2830-1300	1.11	1.00	.67
14F817	315	15	3055-1400	1.17	1.05	.70

TYPE P123ZNN METALLIZED PAPER CAPACITORS

Specifically designed for transistor applications, miniaturized circuits and low voltage operation. Operating temperature: —55°C to +100°C. Special solid impregnant allows use of these units at any voltage up to the rated voltage. Floating case.

50 WVDC

Stk. No.	Mfd.	Size	1-24	25-99	100-999
16F1534	.047	.195x13/16"	2.07	.95	.82
16F1535	.068	.195x13/16"	2.09	.96	.83
16F1536	.1	.195x15/16"	2.11	.97	.83
16F1537	.15	.235x15/16"	2.14	.98	.85
16F1538	.22	.312x13/16"	2.18	1.00	.86

50 WVDC (Cont.)

Stk. No.	Mfd.	Size	1-24	25-99	100-999
16F1539	.33	.312x1 1/8"	2.22	1.02	.88
16F1540	.47	.312x1 3/16"	2.29	1.05	.90
16F1541	.68	.400x1 1/8"	2.49	1.14	.99
16F1542	1.0	.400x1 5/16"	2.69	1.24	1.06
16F1543	1.5	.500x1 1/8"	3.02	1.38	1.20
16F1544	2.0	.562x1 5/16"	3.34	1.53	1.32
16F1545	3.0	.562x1 7/16"	3.78	1.74	1.49
16F1546	4.0	.670x1 7/16"	4.22	1.94	1.67

TYPE P123ZNG METALLIZED PAPER CAPACITORS

Metallized paper tubulars hermetically sealed in metal tubes with glass end seals soldered for positive moisture seal. Aerolene impregnated. Temp. Range: —55°C to +100°C. Up to +125°C with 75% derating. Tol.: .01 mfd. and lower ±25%, .015 mfd. and up ±20%. Case grounded. Av. wt. 2 oz.

200 WVDC

Stk. No.	Mfd.	Size	1-24	25-99	100-999
16F1547	.0005	.175x7/16"	.99	.45	.39
16F1548	.001	.175x7/16"			
16F1549	.005	.175x7/16"			
16F1550	.01	.175x7/16"			
16F1551	.02	.195x9/16"			
16F1552	.05	.235x5/8"	1.05	.48	.41
16F1553	.1	.312x3/4"	1.11	.51	.43

200 WVDC (Cont.)

Stk. No.	Mfd.	Size	1-24	25-99	100-999
16F1554	.25	.312x1 1/16"	1.25	.57	.49
16F1555	.5	.400x1 1/16"	1.36	.62	.54
16F1556	.68	.500x1 1/16"	1.41	.65	.56
16F1557	2.0	.562x1 13/16"	2.36	1.07	.91

600 WVDC

Stk. No.	Mfd.	Size	1-24	25-99	100-999
16F1558	.001	.235x9/16"	1.03	.47	.40
16F1559	.005	.235x9/16"	1.08	.49	.42
16F1560	.01	.235x3/4"	1.08	.49	.42
16F1561	.05	.400x3/4"	1.13	.52	.44
16F1562	.1	.400x1 1/16"	1.24	.57	.48
16F1563	.25	.562x1 5/16"	1.54	.70	.60
16F1564	.5	.670x1 13/16"	1.96	.89	.77
16F1565	1.0	.750x2 5/16"	2.12	.96	.83
16F1566	2.0	1.000x2 5/16"	3.17	1.43	1.23

TYPE P123ZN METAL-CASED CAPACITORS

Metallized paper capacitors sealed in metal tubes. Designed to meet critical operating temps. Case insulated. Standard tolerance .01 mfd and lower ±25%, .015 mfd and up ±20%. Av. wt. 2 oz.

200 Volts

Stk. No.	Mfd.	Size	1-24	25-99	100-999
16F1296	.0005	.175x1/2''	1.33	.61	.53
16F1297	.001	.175x1/2''			
16F1298	.002	.175x1/2''			
16F1299	.003	.175x1/2''			
16F1347	.005	.175x1/2''			
16F1348	.01	.175x1/2''			
16F1349	.015	.195x5/8''			
16F1350	.02	.195x5/8''			
16F1351	.022	.195x5/8''			
16F1352	.033	.235x5/8''	1.35	.62	.54
16F1353	.04	.235x3/4''	1.39	.64	.55
16F1354	.047	.235x3/4''	1.39	.64	.55
16F1355	.05	.235x3/4''	1.39	.64	.55
16F1356	.068	.312x13/16''	1.42	.66	.56
16F1357	.1	.312x13/16''	1.45	.67	.57
16F1358	.15	.312x1 1/8''	1.46	.67	.58
16F1359	.2	.312x1 1/8''	1.47	.68	.58
16F1360	.22	.312x1 1/8''	1.47	.68	.58
16F1361	.25	.312x1 1/8''	1.59	.73	.63
16F1362	.33	.400x1 1/8''	1.59	.73	.63
16F1363	.47	.400x1 1/8''	1.68	.77	.66
16F1364	.5	.400x1 1/8''	1.70	.78	.67
16F1365	.68	.500x1 1/8''	1.74	.81	.69
16F1366	1.0	.562x1 1/8''	1.88	.87	.75
16F1367	1.5	.565x1 5/8''	2.68	1.23	1.05
16F1368	2.0	.562x1 7/8''	2.68	1.23	1.05

400 Volts

Stk. No.	Mfd.	Size	1-24	25-99	100-999
16F1369	.0005	.235x1/2''	1.33	.61	.53
16F1370	.001	.235x1/2''	1.33	.61	.53
16F1371	.002	.235x1/2''	1.33	.61	.53
16F1372	.003	.235x5/8''	1.36	.63	.54
16F1373	.005	.235x13/16''	1.39	.64	.55
16F1374	.01	.235x13/16''	1.39	.64	.55
16F1376	.02	.235x13/16''	1.39	.64	.55
16F1377	.022	.235x13/16''	1.40	.65	.56
16F1378	.033	.312x13/16''	1.40	.65	.56

400 Volts Continued

Stk. No.	Mfd.	Size	1-24	25-99	100-999
16F1380	.047	.312x1 1/8''	1.40	.65	.56
16F1381	.05	.312x1 1/8''	1.40	.65	.56
16F1382	.068	.312x1 1/8''	1.50	.69	.59
16F1383	.1	.400x1 1/8''	1.52	.70	.60
16F1384	.15	.500x1 1/8''	1.60	.73	.63
16F1385	.2	.500x1 1/8''	1.61	.74	.63
16F1386	.22	.500x1 1/8''	1.61	.74	.63
16F1387	.25	.500x1 1/8''	1.77	.82	.70
16F1388	.33	.562x1 3/8''	1.77	.82	.70
16F1389	.47	.562x1 5/8''	1.90	.88	.75
16F1390	.5	.562x1 5/8''	2.10	.96	.82
16F1391	.68	.670x1 5/8''	2.13	.98	.84
16F1392	1.0	.670x2 1/8''	2.26	1.04	.89
16F1394	2.0	1.000x1 7/8''	3.44	1.58	1.35

600 Volts

Stk. No.	Mfd.	Size	1-24	25-99	100-999
16F1396	.001	.235x1/2''	1.37	.63	.54
16F1397	.002	.235x5/8''	1.37	.63	.54
16F1398	.003	.235x5/8''	1.40	.65	.56
16F1399	.005	.235x5/8''	1.42	.65	.56
16F1435	.01	.312x13/16''	1.42	.65	.56
16F1436	.015	.312x13/16''	1.43	.66	.57
16F1437	.02	.312x13/16''	1.43	.66	.57
16F1438	.022	.312x13/16''	1.45	.67	.57
16F1440	.04	.400x13/16''	1.46	.67	.58
16F1441	.047	.400x13/16''	1.47	.68	.58
16F1442	.05	.400x13/16''	1.47	.68	.58
16F1443	.068	.400x1 1/8''	1.54	.71	.61
16F1444	.1	.400x1 1/8''	1.58	.73	.62
16F1445	.15	.500x1 1/8''	1.71	.79	.67
16F1446	.2	.562x1 3/8''	1.81	.84	.71
16F1447	.22	.562x1 3/8''	1.84	.85	.72
16F1449	.33	.562x1 5/8''	2.05	.94	.81
16F1451	.5	.670x1 7/8''	2.28	1.05	.90
16F1452	.68	.670x1 7/8''	2.30	1.06	.90
16F1453	1.0	.750x2 3/8''	2.44	1.12	.97
16F1455	2.0	1.000x2 3/8''	3.47	1.59	1.37

TYPE QE ELECTROLYTICS

AEROVOX
TYPE QE

Engineered for high reliability and long life. Manufactured in drawn aluminum cases in one std. 4 1/2" height to facilitate bus bar connections. Temp. range: —20° C to +85° C. All sizes include insulating tube. Shpg. wt. 2 oz.

Stk. No.	Type	WVDC	Mfd.	Dia.	1-24	25-49	50-99	100-249
16F1567	QE15D-33	15	33,000	3 1/16"	12.99	7.74	5.97	5.30
16F1568	QE25D-25	25	25,000	3 1/16"	12.94	7.70	5.94	5.28

Stock No.	Type	WV DC	Mfd.	Dia.	1-24	25-49	50-99	100-249
16F1569	QE35A-2	35	2,000	1 7/16"	4.12	2.45	1.89	1.68
16F1570	QE35B-5	35	5,000	2 1/16"	6.76	4.03	3.11	2.76
16F1571	QE35C-8	35	8,000	2 9/16"	9.85	5.86	4.52	4.02
16F1572	QE35D-12	35	12,000	3 1/16"	12.20	7.26	5.60	4.98
16F1573	QE50C-5P5	50	5,500	2 9/16"	8.82	5.25	4.05	3.60
16F1574	QE150A-P5	150	500	1 7/16"	4.44	2.64	2.04	1.81
16F1575	QE250C-1	250	1,000	2 9/16"	11.32	6.74	5.20	4.62
16F1576	QE350C-P7	350	700	2 9/16"	10.44	6.21	4.79	4.26
16F1577	QE350D-1	350	1,000	3 1/16"	13.52	8.05	6.21	5.52
16F1578	QE450A-P125	450	125	1 7/16"	5.50	3.27	2.52	2.24

AEROVOX CAPACITORS

P8292ZN METALLIZED-PAPER CAPACITORS

AEROVOX
P8292ZN

Impregnated metallized paper. Modified plastic tubular type Duranite end-sealed capacitors in paper cases. Operating temp. —30° C to +100° C.

200 VOLTS

No.	Mfd.	D x L	1-24	25-49	50-99	100-499
16F473	.01	1/4x19/32	.44	.26	.20	.18
16F474	.02	1/4x21/32	.44	.26	.20	.18
16F475	.03	5/16x23/32	.45	.26	.20	.18
16F476	.05	5/16x23/32	.45	.26	.20	.18
16F477	.10	3/8x23/32	.47	.28	.21	.19
16F478	.25	1/2x23/32	.68	.39	.30	.27
16F479	.50	7/16x1 5/32	.80	.47	.36	.32
16F480	1.00	9/16x1 5/32	1.07	.62	.48	.43
16F481	2.00	5/8x1 21/32	1.46	.85	.66	.58

400 VOLTS

No.	Mfd.	D x L	1-24	25-49	50-99	100-499
16F482	.01	5/16x23/32"	.44	.26	.20	.18
16F483	.02	3/8x23/32"	.45	.26	.20	.18
16F484	.03	3/8x23/32"	.45	.26	.20	.18
16F485	.05	7/16x23/32"	.47	.28	.21	.19
16F486	.10	7/16x1 5/32"	.51	.30	.23	.20
16F487	.25	9/16x1 5/32"	.74	.43	.33	.30
16F488	.50	5/8x1 15/32"	.95	.55	.43	.38
16F489	1.00	11/16x1 31/32"	1.32	.77	.60	.53
16F490	2.00	7/8x2 3/8"	1.86	1.09	.84	.75

600 VOLTS

No.	Mfd.	D x L	1-24	25-49	50-99	100-499
16F491	.01	3/8"x23/32"	.45	.26	.20	.18
16F492	.02	3/8"x23/32"	.47	.28	.21	.19
16F493	.03	7/16x23/32"	.50	.29	.22	.20
16F494	.05	1/2x23/32"	.53	.31	.24	.21
16F495	.10	7/16x1 5/32"	.59	.34	.26	.23
16F496	.25	5/8x1 5/32"	.92	.54	.41	.37
16F497	.50	11/16x1 19/32"	1.15	.67	.52	.46
16F498	1.00	13/16x2"	1.43	.84	.64	.57
16F499	2.00	1x2 3/8"	2.00	1.18	.91	.81

V84C-V161 AEROFILM TUBLAR CAPS

High quality units in Polycap (Polyester Film) casing material which have high insulation resistance, low dielectric absorption and power factor. Relatively small capacitance change over 0° to 85°C. Epoxy end fill will not flow, soften, or melt at any operating temperature. olerance: ±20%. Operating temp. —30° to +100°C.

200 WVDC

No.	Type No.	Mfd.	D x L	1-24	25-49	50-99	100-249
16F1579	V84C-V161-2S1	.01	9/32x15/16"	.15	.10	.08	.062
16F1580	V84C-V161-2S5	.05	5/16x1 1/16"	.15	.113	.09	.070
16F1581	V84C-V161-2P1	.1	3/8x1 1/4"	.21	.183	.10	.083
16F1582	V84C-V161-2P22	.22	1/2x1 1/4"	.24	.18	.14	.111
16F1583	V84C-V161-2P25	.25	1/2x1 1/4"	.26	.19	.14	.116
16F1584	V84C-V161-2P33	.33	1/2x1 1/2"	.33	.22	.17	.136
16F1585	V84C-V161-2W1	1.0	13/16x1 7/8"	.57	.40	.31	.252

400 WVDC

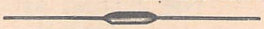
No.	Type No.	Mfd.	D x L	1-24	25-49	50-99	100-249
16F1586	V84C-V161-2D68	.0068	9/32x15/16"	.15	.10	.08	.062
16F1587	V84C4S1	.01	5/16x1"	.15	.10	.08	.062
16F1588	V84C4S2	.02	5/16x1 1/16"	.15	.11	.08	.066
16F1589	V84C4S5	.05	3/8x1 1/4"	.18	.12	.10	.076
16F1590	V84C4P1	.1	1/2x1 1/4"	.21	.20	.15	.095
16F1591	V84C4P25	.25	9/16x1 3/4"	.39	.29	.22	.178
16F1592	V84C4P5	.5	11/16x2"	.69	.47	.38	.302
16F1593	V84C4W1	1.0	7/8x2 1/8"	1.05	.74	.58	.462

600 WVDC

No.	Type No.	Mfd.	D x L	1-24	25-49	50-99	100-249
16F1594	V84C6D1	.001	9/32x15/16"	.15	.10	.07	.060
16F1595	V84C6D5	.005	5/16x1"	.15	.10	.08	.062
16F1596	V84C6S1	.01	11/32x1 1/16"	.18	.10	.08	.064
16F1597	V84C6S2	.02	3/8x1 3/16"	.18	.12	.09	.073
16F1598	V84C6S3	.03	7/16x1 3/16"	.21	.12	.09	.076
16F1599	V84C6S5	.05	1/2x1 1/4"	.24	.17	.13	.106
16F1600	V84C6P1	.1	9/16x1 1/2"	.30	.22	.17	.139
16F1601	V84C6P2	.2	23/32x1 5/8"	.48	.36	.28	.227
16F1602	V84C6P25	.25	3/4x1 3/4"	.54	.42	.33	.260
16F1603	V84C6P5	.5	7/8x2 1/8"	.87	.68	.52	.420

**COME TO NEWARK FOR ALL
YOUR ELECTRONIC NEEDS**

CERAFIL CERAMIC CAPACITORS



100 volts applied: +10% to —35%. Power factor — 2.5% maximum. Meet MIL-C-11015A. Lead length, 1½" minimum. Oper. temp —55°C to +85°C. Leads—Tinned Copper. Below .01 mfd.—26 gauge. .01 mfd. and above 22 gauge. 100 VDCW; 300 VDCT.

Dipped Axial

No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499
16F745	C-80V 100AM	.00001	.090x.320	.52	.44	.34	.26
16F739	C-80V 102AM	.001	.090x.320	.46	.39	.31	.23
16F740	C-80V 502AM	.005	.120x.500	.76	.63	.51	.38
16F741	C-80V 103AM	.01	.180x.500	1.00	.90	.71	.53
16F742	C-80V 203AM	.02	.200x.500	1.83	1.53	1.22	.91
16F743	C-80V 503AM	.05	.240x.650	3.05	2.53	2.03	1.52
16F744	C-80V 104AM	.1	.310x.750	5.48	4.56	3.65	2.74
16F746	C-80V 220AM	.000022	.090x.320	.50	.43	.34	.26
16F747	C-80V 330AM	.000033	.090x.320	.50	.43	.34	.26
16F748	C-80V 470AM	.000047	.090x.320	.50	.43	.34	.26
16F749	C-80V 101AM	.0001	.090x.320	.50	.43	.34	.26
16F750	C-80V 221AM	.00022	.090x.320	.50	.43	.34	.26
16F751	C-80V 331AM	.00033	.090x.320	.50	.43	.34	.26
16F752	C-80V 471AM	.00047	.090x.320	.50	.43	.34	.26

Dipped Radial

No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499
16F1604	C80V100RM	.00001	.087x.315	.52	.44	.34	.29
16F1605	C80V220RM	.000022	.087x.315	.52	.44	.34	.29
16F1606	C80V330RM	.000033	.087x.315	.52	.44	.34	.29
16F1607	C80V470RM	.000047	.087x.315	.52	.44	.34	.29
16F1608	C80V101RM	.0001	.087x.315	.52	.44	.34	.29
16F1609	C80V221RM	.00022	.087x.315	.52	.44	.34	.29
16F1610	C80V331RM	.00033	.087x.315	.52	.44	.34	.29
16F1611	C80V471RM	.00047	.087x.315	.56	.48	.38	.29
16F1612	C80V102RM	.001	.087x.315	.50	.43	.34	.26
16F1613	C80V502RM	.005	.117x.495	.82	.70	.56	.42
16F1614	C80V103RM	.01	.157x.495	1.17	.99	.79	.59
16F1615	C80V203RM	.02	.197x.495	1.99	1.69	1.35	1.01
16F1616	C80V503RM	.05	.237x.645	3.31	2.81	2.25	1.69
16F1617	C80V104RM	.1	.277x.745	5.96	5.06	4.05	3.04

Molded Axial Lead

No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499
16F1670	MC80V100AM	.00001	.087x.315	.57	.48	.38	.23
16F1671	MC80V220AM	.000022	.087x.315	.57	.48	.38	.23
16F1672	MC80V330AM	.000033	.087x.315	.57	.48	.38	.23
16F1673	MC80V470AM	.000047	.087x.315	.57	.48	.38	.23
16F1674	MC80V101AM	.0001	.087x.315	.57	.48	.38	.23
16F1675	MC80V221AM	.00022	.087x.315	.57	.48	.38	.23
16F1676	MC80V331AM	.00033	.087x.315	.57	.48	.38	.23
16F1677	MC80V471AM	.00047	.087x.315	.57	.48	.38	.23
16F1678	MC80V102AM	.001	.087x.315	.51	.43	.34	.21
16F1679	MC80V502AM	.005	.117x.495	.84	.70	.56	.34
16F1680	MC80V103AM	.01	.157x.495	1.19	.99	.79	.48
16F1681	MC80V203AM	.02	.197x.495	2.03	1.69	1.35	.82
16F1682	MC80V503AM	.05	.237x.645	3.38	2.81	2.25	1.38
16F1683	MC80V104AM	.1	.277x.745	6.08	5.06	4.05	2.47

TYPE AEP PLUG-IN ELECTROLYTIC

AEROVOX
CAPACITOR
AEP 3J

Hermetically sealed, aluminum can with 4-pin octal base mounting. Commercial equivalent of Type CE51's, 2's, & 3's as listed in MIL C62A. Size: 1 5/32x2½" except (*) 1⅜x2½", (†) 1⅜x3½", (††) 1⅜x4¼", (*) 1⅜x3". Av. Shpg. wt., 5 oz.

Single Element Units

Stock No.	Type	Mfd.	VDCW	1-24	25-49	50-99	100-249
16F220	AEP400P*	2000	15	3.43	2.00	1.54	1.37
16F221	AEP5A	25	25	2.29	1.34	1.03	.92
16F200	AEP4D	20	150	2.29	1.33	1.03	.91
16F222	AEP8D	40	150	2.33	1.36	1.05	.93
16F201	AEP2J	10	450	2.34	1.36	1.05	.94
16F223	AEP3J	15	450	2.39	1.39	1.07	.96
16F202	AEP4J	20	450	2.44	1.42	1.10	.97
16F203	AEP6J	30	450	2.53	1.48	1.14	1.01
16F204	AEP8J	40	450	2.77	1.62	1.25	1.11
16F205	AEP16J†	80	450	3.25	1.89	1.46	1.30
16F206	AEP2L††	10	600	2.84	1.66	1.28	1.14

Dual Element Units

Stock No.	Type	Mfd.	VDCW	1-24	25-49	50-99	100-249
16F207	AEP44D	20-20	150	2.46	1.43	1.11	.98
16F208	AEP88D	40-40	150	2.54	1.48	1.14	1.02
16F209	AEP22J	10-10	450	2.57	1.50	1.15	1.03
16F210	AEP44J*	20-20	450	2.90	1.69	1.31	1.16
16F219	AEP88J**	40-40	450	3.31	1.93	1.49	1.32

Triple Element Units

Stock No.	Type	Mfd.	VDCW	1-24	25-49	50-99	100-249
16F211	AEP444D	20-20-20	150	2.61	2.61	1.18	1.05
16F212	AEP88D4A	40-40-20	150/25	2.67	2.67	1.20	1.07
16F213	AEP222J	10-10-10	450	2.78	2.78	1.25	1.11
16F214	AEP22J4A	10-10-20	450/25	2.69	2.69	1.21	1.08
16F215	AEP44J4A*	20-20-20	450/25	3.03	3.03	1.36	1.21
16F216	AEP444J**	20-20-20	450	3.29	3.29	1.48	1.31
16F224	AEP822J**	40-10-10	450	3.23	3.23	1.45	1.29

Quadruple Element Units—with ground lug

Stock No.	Type	Mfd.	VDCW	1-24	25-49	50-99	100-249
16F217	AEPG444D4A*	20-20-20-20	150/25	2.87	2.87	1.29	1.15
16F225	AEPG2222J*	10-10-10-10	450	3.11	3.11	1.40	1.25
16F218	AEPG444J4A**	20-20-20-20	450/25	3.34	3.34	1.50	1.34

CAPACITORS

COMPACT ROLLED CERAMIC CAPACITORS

Type CR90 rated 100 VDCW @ 85°C and derated to 50 VDCW @ 125°C. Types CR89 and CR91 rated 50 VDCW and 200 VDCW respectively @ 85°C and derated by 50% at 125°C. Average shipping weight 4 oz.

TYPE CR89—50 VDCW

Stk. No.	Type	Cap. Mfd.	D. max. (in.)	L. max. (in.)	1-24	25-49	50-99	100-up
16F1660	CR89W104AM	0.1	.140	.400	3.65	3.40	3.16	2.92
16F1661	CR89W254AM	0.25	.210	.495	4.86	4.54	4.21	3.89
16F1662	CR89W504AM	0.5	.260	.495	7.90	7.37	6.84	6.32
16F1663	CR89W105AM	1.0	.260	.690	12.15	11.34	10.53	9.72
16F1664	CR89W205AM	2.0	.350	.690	18.23	17.01	15.80	14.58

TYPE CR90—100 VDCW

Stk. No.	Type	Cap. Mfd.	D. max. (in.)	L. max. (in.)	1-24	25-49	50-99	100-up
16F1068	CR90V104AM	0.1	.210	.690	4.05	3.78	3.51	3.24
16F1069	CR90V254AM	0.25	.260	.690	5.40	5.04	4.68	4.32
16F1070	CR90V504AM	0.5	.350	.690	8.78	8.19	7.60	7.02
16F1071	CR90V105AM	1.0	.480	.690	13.50	12.60	11.70	10.80
16F1072	CR90V205AM	2.0	.400	1.440	20.25	18.90	17.55	16.20

TYPE CR91—200 VDCW

Stk. No.	Type	Cap. Mfd.	D. max. (in.)	L. max. (in.)	1-24	25-49	50-99	100-up
16F1665	CR91W104AM	0.1	.290	.495	4.86	4.54	4.21	3.89
16F1666	CR91W254AM	0.25	.350	.690	6.48	6.05	5.62	5.18
16F1667	CR91W504AM	0.5	.440	.690	10.54	9.83	9.12	8.42
16F1668	CR91W105AM	1.0	.470	1.000	16.20	15.12	14.04	12.96
16F1669	CR91W205AM	2.0	.520	1.440	24.30	22.68	21.06	19.44

"AEROTAN" SOLID TANTALUM CAPACITORS

Type ST13 (Insulated)

Aerotan capacitors are solid electrolyte units featuring sintered tantalum anodes and hermetically sealed in metal cases. Meets req. of MIL-C-26655A. Temp. range of —80° to +125° C. Std. tol. ±20%. *Sizes: A—.322"x.135", B—.510"x.185". C—.722"x.289", D—.822"x.351".

10 VDCW

Stk. No.	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1495	4.7	A	1.41	1.14	.97	.83
16F1496	33	B	1.45	1.17	1.00	.86
16F1497	100	C	2.45	1.97	1.67	1.43
16F1498	180	D	4.55	3.65	3.09	2.61
16F1499	220	D	4.55	3.65	3.09	2.61

15 VDCW

Stk. No.	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1500	3.3	A	1.41	1.14	.97	.83
16F1501	22	B	1.45	1.17	1.00	.86
16F1502	68	C	2.45	1.97	1.67	1.43
16F1503	120	D	4.55	3.65	3.09	2.61
16F1504	150	D	4.55	3.65	3.09	2.61

20 VDCW

Stk. No.	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1505	1.0	A	1.41	1.14	.97	.83
16F1506	2.2	A	1.41	1.14	.97	.83
16F1507	3.3	B	1.45	1.17	1.00	.86
16F1508	4.7	B	1.45	1.17	1.00	.86
16F1509	10	B	1.45	1.17	1.00	.86

20 VDCW (Cont.)

Stk. No.	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1510	15	B	1.45	1.17	1.00	.86
16F1511	22	C	2.45	1.97	1.67	1.43
16F1512	47	C	2.45	1.97	1.67	1.43
16F1513	56	D	4.55	3.65	3.09	2.61
16F1514	68	D	4.55	3.65	3.09	2.61
16F1515	82	D	4.55	3.65	3.09	2.61
16F1516	100	D	4.55	3.65	3.09	2.61

35 VDCW

Stk. No.	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1517	1.0	A	1.41	1.14	.97	.83
16F1518	1.2	A	1.41	1.14	.97	.83
16F1519	1.5	B	1.45	1.17	1.00	.86
16F1520	1.8	B				
16F1521	2.2	B				
16F1522	2.7	B				
16F1523	3.3	B				
16F1524	3.9	B				
16F1525	4.7	B				
16F1526	5.6	B				
16F1527	6.8	B				
16F1528	8.2	C	2.45	1.97	1.67	1.43
16F1529	10	C				
16F1530	12	C				
16F1531	15	C				
16F1532	18	C				
16F1533	22	C				

TYPE PWE-PTT PEE-WEE ELECTROLYTIC

AEROVOX
PTT-PWE

Miniature polycap electrolytic encased in polycap tubes with special aerovox plastic end-fill which binds to the ceramic case. Operating temp. range is minus 30°C plus 65°C. Cap. at 25°C is minus 10% plus 250%. *Sizes: A—¼x¾", B—¼x⅞", C—⅜x¾", D—⅜x⅞", E—⅜x1", F—⅜x1¼", G—⅜x1⅜", H—⅜x1½", J—⅜x1¾", K—⅜x2".

3 VDCW

Stk. No.	Type	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1099	3001	1	A	.73	.29	.23	.18
16F1142	3002	2	A				
16F1143	3003	3	A				
16F1144	3005	5	A				
16F1145	3008	8	A				
16F1146	3010	10	A				
16F1148	3020	20	A				
16F1149	3025	25	A				
16F1188	3030	30	A				
16F1189	3040	40	A				
16F1190	3050	50	B				
16F1191	3100	100	C	.82	.32	.25	.20
16F1192	3200	200	E	.85	.32	.25	.20
16F1193	3250	250	F	.94	.34	.26	.21
16F1195	3500	500	K	1.03	.45	.35	.28

6 VDCW

Stk. No.	Type	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1196	6001	1	A	.73	.29	.23	.18
16F1197	6002	2	A				
16F1198	6003	3	A				
16F1199	6005	5	A				
16F1251	6010	10	A				
16F1252	6015	15	A				
16F1253	6020	20	A				
16F1254	6025	25	B				
16F1256	6040	40	C	.88	.32	.25	.20
16F1257	6050	50	C	.88	.32	.25	.20
16F1258	6100	100	E	.88	.32	.25	.20
16F1259	6200	200	F	.94	.34	.26	.21
16F1260	6250	250	H	1.00	.38	.30	.24

10 VDCW

Stk. No.	Type	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1261	10001	1	A	.73	.29	.23	.18
16F1262	10002	2	A				
16F1263	10003	3	A				
16F1264	10005	5	A				
16F1265	10008	8	A				
16F1266	10010	10	A				
16F1267	10015	15	A				
16F1268	10020	20	B				
16F1269	10025	25	C	.73	.32	.25	.20
16F1270	10030	30	C				
16F1271	10040	40	D				
16F1272	10050	50	D				
16F1273	10100	100	E	.88	.32	.25	.20

25 VDCW

Stk. No.	Type	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1274	25001	1	A	.73	.29	.23	.18
16F1275	25002	2	A				
16F1276	25003	3	A				
16F1277	25005	5	A				
16F1278	25008	8	A				
16F1279	25010	10	B				
16F1280	25015	15	C	.73	.32	.25	.20
16F1281	25020	20	C				
16F1282	25025	25	D				
16F1283	25030	30	D				
16F1284	25040	40	D	.79	.32	.25	.20
16F1285	25050	50	E	.82	.32	.25	.20
16F1286	25100	100	J	1.00	.41	.32	.25

50 VDCW

Stk. No.	Type	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1287	50001	1	A	.73	.29	.23	.18
16F1288	50002	2	A				
16F1289	50003	3	A				
16F1290	50005	5	B				
16F1291	50008	8	C	.73	.32	.25	.20
16F1292	50010	10	C				
16F1293	50015	15	D				
16F1294	50020	20	D				
16F1295	50025	25	F	.79	.34	.26	.21

AEROVOX

CAPACITORS

NEWARK CARRIES COMPLETE STOCKS
OF AEROVOX CAPACITORS

TYPE SRE BANTAM ELECTROLYTICS

Hermetically sealed aluminum can dry electrolytics. Especially suitable for hearing aids, personal radios, etc.

+ POSITIVE
AEROVOX
BANTAM

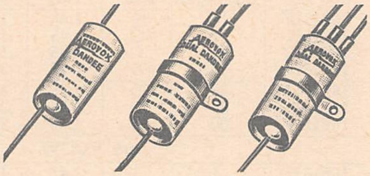
Waxed cardboard insulating jacket. Tinned copper leads. 2 oz.

Stk. No.	Mfd.	WV	D x L	1-24	25-49	50-99	100-249
16F000	5	150	⅜x1"	.59	.43	.33	.27
16F001	10	150	⅜x1⅝"	.62	.45	.35	.28
16F002	15	150	½x1⅛"	.68	.48	.37	.30
16F019	20	150	½x1⅝"	.71	.50	.39	.31
16F003	25	150	½x1⅝"	.73	.53	.41	.33
16F020	1	50	⅜x1"	.53	.39	.30	.24
16F021	2	50	⅜x1"	.53	.39	.30	.24
16F022	5	50	⅜x1"	.59	.41	.32	.26
16F004	10	50	⅜x1"	.59	.42	.33	.26
16F005	15	50	⅜x1⅛"	.59	.43	.33	.26
16F006	25	50	½x1"	.62	.44	.34	.27
16F023	5	25	⅜x1"	.59	.41	.32	.25

Stk. No.	Mfd.	WV	D x L	1-24	25-49	50-99	100-249
16F024	10	25	⅜x1"	.59	.42	.33	.26
16F025	20	25	⅜x1"	.59	.43	.33	.27
16F007	25	25	⅜x1"	.59	.44	.34	.27
16F008	50	25	½x1"	.65	.47	.36	.29
16F009	100	25	½x1⅝"	.79	.57	.44	.36
16F034	100	15	½x1⅛"	.73	.52	.40	.32
16F010	50	12	⅜x1⅛"	.59	.41	.32	.26
16F011	100	12	½x1"	.71	.51	.40	.32
16F012	200	12	½x1⅝"	.79	.65	.50	.40
16F026	5	6	⅜x1"	.47	.37	.29	.23
16F027	25	6	⅜x1"	.50	.37	.29	.23
16F013	50	6	⅜x1"	.56	.41	.32	.25
16F014	100	6	½x1⅛"	.71	.50	.39	.31
16F035	250	6	½x1⅝"	.79	.63	.49	.39
16F028	25	3	⅜x1"	.50	.36	.28	.22
16F015	100	3	⅜x1"	.65	.46	.36	.29
16F018	500	3	½x1⅝"	.82	.66	.51	.41

TYPE PRS DANDEE MINIATURE ALUMINUM ELECTROLYTICS

Tubular units encased in aluminum containers especially designed for compact assemblies. All are vented for excessive gas pressures. Av. shpg. wt., 4 oz.



TYPE PRS—SINGLE SECTION

Stk. No.	Mfd.	Volts	D x L	1-24	25-49	50-99	100-249
16F600	8	700	15/16x3 1/16"	1.71	1.33	1.04	.83
16F602	16	700	1 1/16x3 9/16"	2.06	1.59	1.24	.99
16F603	8	600	15/16x3 1/16"	1.68	1.31	1.02	.81
16F604	10	600	15/16x3 1/16"	1.73	1.35	1.05	.84
16F606	16	600	1 1/16x3 9/16"	2.03	1.57	1.22	.97
16F655	20	600	1 1/16x3 9/16"	2.09	1.61	1.25	1.00
16F607	8	500	13/16x1¾"	.76	.61	.47	.38
16F663	1	450	9/16x1¼"	.65	.51	.39	.32
16F656	2	450	9/16x1¼"	.68	.52	.40	.32
16F611	4	450	11/16x1½"	.68	.52	.41	.33
16F612	8	450	11/16x1⅞"	.73	.56	.46	.37
16F613	10	450	11/16x1⅞"	.76	.59	.46	.37
16F614	12	450	13/16x1⅞"	.79	.61	.50	.40
16F615	16	450	13/16x2"	.82	.64	.53	.42
16F616	20	450	13/16x2¼"	.91	.72	.56	.45
16F618	40	450	15/16x2¾"	1.06	.83	.64	.52
16F664	50	450	15/16x3½"	1.23	.97	.75	.60
16F657	60	450	1 1/16x3¼"	1.38	1.06	.83	.66
16F659	100	450	1 1/16x4"	1.88	1.17	.91	.73
16F619	8	350	11/16x1¾"	.71	.55	.43	.34
16F623	4	250	11/16x1¼"	.59	.45	.37	.30
16F624	8	250	11/16x1½"	.68	.51	.41	.33
16F627	20	250	13/16x1½"	.79	.61	.50	.40
16F665	30	250	13/16x2¼"	.85	.65	.53	.42
16F628	40	250	13/16x2¼"	.91	.69	.57	.46
16F629	4	150	9/16x1¼"	.59	.42	.33	.26
16F630	8	150	9/16x1¼"	.62	.44	.34	.28
16F632	16	150	11/16x1½"	.68	.49	.38	.30
16F633	20	150	11/16x1¾"	.71	.50	.39	.31
16F635	30	150	13/16x1½"	.76	.55	.43	.34

TYPE PRS—SINGLE SECTION (Cont.)

Stk. No.	Mfd.	Volts	D x L	1-24	25-49	50-99	100-249
16F636	40	150	13/16x1¾"	.79	.58	.45	.36
16F637	50	150	15/16x1¾"	.82	.59	.46	.37
16F661	80	150	15/16x1¾"	.94	.68	.53	.42
16F667	100	150	15/16x2¼"	1.03	.74	.58	.46
16F668	150	150	1 1/16x2¼"	1.12	.81	.63	.51
16F638	10	50	9/16x1¼"	.59	.42	.33	.26
16F639	25	50	9/16x1¼"	.62	.44	.34	.27
16F640	50	50	11/16x1½"	.71	.51	.40	.32
16F641	100	50	11/16x1¾"	.82	.59	.46	.37
16F672	150	50	3/16x1¾"	.91	.65	.51	.41
16F673	250	50	15/16x1¾"	1.03	.79	.64	.51
16F642	10	25	9/16x1¼"	.59	.42	.33	.26
16F644	50	25	9/16x1¼"	.65	.47	.36	.29
16F645	100	25	11/16x1¾"	.79	.57	.44	.36
16F646	250	25	13/16x1¾"	1.00	.78	.61	.49
16F647	500	25	1 1/16x2¼"	1.35	1.07	.83	.66
16F648	100	12	11/16x1¼"	.71	.51	.40	.32
16F649	250	12	11/16x2"	.85	.65	.53	.42
16F650	500	12	13/16x2"	1.00	.79	.61	.49
16F651	1000	12	13/16x2¼"	1.32	1.05	.82	.65

TYPE PRS—DUAL SECTION

16F700	8-8	450	13/16x2¼"	1.00	.79	.66	.53
16F702	16-16	450	1 1/16x2¼"	1.32	1.06	.82	.66
16F705	40-20	450	1 1/16"x3¼"	1.73	1.33	1.09	.87
16F706	40-40	450	1 1/16x4"	1.97	1.55	1.29	1.03
16F708	30-30	250	15/16x2¼"	1.32	.95	.74	.59
16F710	20-20	150	13/16x1¾"	.97	.76	.59	.47
16F711	30-20	150	15/16x1¾"	1.00	.79	.61	.49
16F713	30-30	150	15/16x1¾"	1.06	.81	.63	.51
16F712	40-20	150	15/16x1¾"	1.03	.81	.63	.50
16F716	40-40	150	15/16x2¼"	1.06	.84	.67	.53
16F715	50-30	150	15/16x2¼"	1.15	.86	.67	.53
16F717	80-40	150	15/16x2¾"	1.29	.94	.73	.58
16F719	100-100	150	1 1/16x3¼"	1.88	1.13	.88	.70

TYPE PRS—TRIPLE SECTION

16F681	30-30-20	150	1 1/16x1¾"	1.55	1.17	.91	.73
16F730	30-30-30	150	15/16x2¼"	1.55	1.19	.93	.74
16F731	40-20-20	150	15/16x2¼"	1.55	1.17	.91	.73
16F732	40-40-20	150	1 1/16x2¼"	1.60	1.21	.94	.75
16F735	50-30-20	150	1 1/16x2½"	1.60	1.22	.95	.76
16F736	80-40-20	150	1 1/16x2½"	1.71	1.30	1.01	.81

TYPE XPP—MINIATURIZED METAL CASED ELECTROLYTICS

Miniature hermetically sealed, metal cased, tubular aluminum electrolytic capacitors. For use in all transistorized assemblies. Oper. temp.: —20°C to +65°C.

10 VWDC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
16F1481	XPP-10001	1	3/16x⅝"	.73	.46	.36	.29
16F1482	XPP-10002	2	3/16x⅝"	.73	.46	.36	.29
16F1483	XPP-10003	3	3/16x¾"	.73	.46	.36	.29
16F1484	XPP-10004	4	3/16x¾"	.73	.46	.36	.29
16F1485	XPP-10005	5	3/16x¾"	.73	.46	.36	.29
16F1486	XPP-10006	6	.265x¾"	.73	.46	.36	.29
16F1487	XPP-10008	8	.265x¾"	.79	.46	.36	.29
16F1488	XPP-10010	10	.265x¾"	.79	.46	.38	.30
16F1489	XPP-10015	15	.265x¾"	.79	.48	.38	.30
16F1490	XPP-10020	20	.265x⅞"	.79	.48	.38	.30
16F1491	XPP-10025	25	⅜x¾"	.79	.51	.39	.32
16F1492	XPP-10030	30	⅜x¾"	.82	.51	.39	.32
16F1493	XPP-10040	40	⅜x¾"	.82	.52	.41	.33
16F1494	XPP-10050	50	⅜x¾"	.88	.56	.44	.35

15 VWDC

16F1467	XPP-15001	1	3/16x⅝"	.73	.46	.36	.29
16F1468	XPP-15002	2	3/16x⅝"	.73	.46	.36	.29

15 VWDC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
16F1469	XPP-15003	3	.265x¾"	.73	.46	.36	.29
16F1470	XPP-15004	4	.265x¾"	.76	.46	.36	.29
16F1471	XPP-15005	5	.265x¾"	.82	.46	.36	.29
16F1472	XPP-15006	6	.265x¾"	.82	.46	.36	.29
16F1473	XPP-15008	8	.265x¾"	.82	.48	.38	.30
16F1474	XPP-15010	10	.265x¾"	.82	.48	.38	.30
16F1475	XPP-15015	15	.265x⅞"	.85	.48	.38	.30
16F1476	XPP-15020	20	⅜x¾"	.85	.48	.38	.30
16F1477	XPP-15025	25	⅜x¾"	.85	.51	.39	.32
16F1478	XPP-15030	30	⅜x⅞"	.88	.51	.39	.32
16F1479	XPP-15040	40	⅜x⅞"	.91	.52	.41	.33
16F1480	XPP-15050	50	⅜x⅞"	.94	.56	.44	.35

25 VWDC

16F1456	XPP-25001	1	3/16x¾"	.73	.46	.36	.29
16F1457	XPP-25002	2	3/16x¾"	.76	.46	.36	.29
16F1458	XPP-25003	3	.265x¾"	.76	.46	.36	.29
16F1459	XPP-25004	4	.265x¾"	.76	.46	.36	.29
16F1460	XPP-25005	5	.265x¾"	.82	.48	.38	.30
16F1461	XPP-25006	6	.265x¾"	.82	.48	.38	.30
16F1462	XPP-25008	8	⅜x¾"	.85	.48	.38	.30
16F1463	XPP-25010	10	⅜x¾"	.85	.48	.38	.30
16F1464	XPP-25015	15	⅜x⅞"	.85	.51	.39	.32
16F1465	XPP-25020	20	⅜x⅞"	.88	.51	.39	.32
16F1466	XPP-25025	25	⅜x⅞"	.91	.56	.44	.35

CAPACITORS AEROVOX

MRSP

MRST

Type MSRP & MSRT. Tubular AC-Motor Start electrolytic capacitors are replacement for use in oil-burners, refrigerators, room air conditioners and any motor driven equipment. Designed and built to meet most exacting electrical and mechanical requirements and are tested under proper operating conditions. Units listed below give the most popular values in each voltage. Type MSRP is bakelite cased, Type MSRT is cardboard insulated over round aluminum can. A complete line of hardware is available for all units.

TYPE MSRP—BAKELITE CASE

110 VAC

Stock No.	MSRP No.	Cap. Mfd.	Size	NET
16F1618	801	108-130	1 7/16"x3 3/8"	1.53
16F1619	802	124-149	1 7/16"x3 3/8"	1.56
16F1620	823	145-175	1 7/16"x3 3/8"	1.82
16F1621	803	161-193	1 7/16"x3 3/8"	1.88
16F1622	824	189-227	1 7/16"x3 3/8"	2.09
16F1623	805	216-259	1 7/16"x3 3/8"	2.38
16F1624	806	243-270	1 13/16"x3 3/8"	2.59
16F1625	807	270-324	1 13/16"x3 3/8"	2.82
16F1626	808	320-360	1 13/16"x3 3/8"	2.97

125 VAC

Stock No.	MSRP No.	Cap. Mfd.	Size	NET
16F1627	882	145-175	1 7/16"x3 3/8"	2.35
16F1628	883	161-193	1 7/16"x3 3/8"	2.56
16F1629	884	189-227	1 13/16"x3 3/8"	2.76
16F1630	886	243-292	1 13/16"x3 3/8"	3.20
16F1631	887	270-324	1 13/16"x3 3/8"	3.41

220 VAC

16F1632	859	88-108	1 13/16"x4 3/8"	3.59
16F1633	862	141-170	2 1/16"x4 3/8"	4.82

330 VAC

16F1634	839	43-53	1 13/16"x4 3/8"	3.82
16F1635	841	53-64	1 13/16"x4 3/8"	4.29

TYPE MSRT—CARDBOARD INSULATED

110 VAC

16F1636	162	108-120	1 3/8"x3 1/8"	1.68
16F1637	160	124-138	1 3/8"x3 1/8"	1.71
16F1638	171	145-162	1 3/8"x3 1/8"	1.97
16F1639	198	161-180	1 3/8"x3 1/8"	2.00
16F1640	257	189-210	1 3/8"x3 1/8"	2.26
16F1641	192	216-240	1 3/8"x3 1/8"	2.50
16F1642	213	243-270	1 3/4"x3 1/8"	2.76
16F1643	207	270-300	1 3/4"x3 1/8"	2.97
16F1644	210	324-360	1 3/4"x3 1/8"	3.15
16F1645	206	378-420	1 3/4"x3 1/8"	3.56

330 VAC

16F1658	359	88-108	2 1/2"x4 1/8"	6.23
16F1659	360	108-120	2 1/2"x4 1/8"	7.67

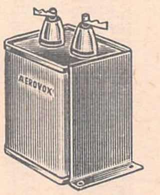
125 VAC

16F1646	272	161-180	1 3/8"x3 1/8"	2.70
16F1647	288	216-240	2"x3 1/8"	3.21
16F1648	274	270-300	2"x3 1/8"	3.59
16F1649	275	324-360	2"x3 1/8"	4.12
16F1650	276	378-420	2"x3 1/8"	4.53
16F1651	277	400-480	2"x3 1/8"	4.85

220 VAC

16F1652	304	108-120	2"x3 1/8"	4.17
16F1653	305	124-138	2"x4 1/8"	4.67
16F1654	306	145-162	2"x4 1/8"	5.03
16F1655	307	161-180	2"x4 1/8"	5.41
16F1656	308	189-210	2"x4 1/8"	6.44
16F1657	309	216-240	2"x4 1/8"	7.06

TYPE JP09—AEROVOX HYVOLS



Immersion-proof units in sturdy rectangular metal can. High voltage screw type pillar terminals fitted with soldering lugs. The use of HYVOL allows exceptionally compact size for capacity, working voltage, and safety factor. Intended for heavy-duty continuous service in transmitters, amplifiers, etc. Type MB bracket is supplied unless otherwise specified except on units with base sizes 3 3/4x3 3/16" and 3 3/4x4 9/16" where type MS bracket is supplied. MSB bracket is available for all sizes on request. Standard tolerance +20 —10%. Average weight 5 pounds.

600 Volt DC Working

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F230	.5	2 1/4x1 13/16x1 1/16"	2.52	1.32	1.18	1.15
16F231	1.0	2 1/4x1 13/16x1 1/16"	2.68	1.44	1.35	1.33
16F232	2.0	2 7/8x1 13/16x1 1/16"	3.21	1.72	1.57	1.53
16F234	4.0	3 1/2x2 1/2x1 3/16"	4.32	2.28	2.06	2.01
16F235	8.0	3 7/8x3 3/4x1 1/4"	6.19	3.23	2.92	2.86
16F236	10.0	4 3/4x3 3/4x1 1/4"	6.65	3.46	3.21	3.15
16F237	15.0	4 3/4x3 3/4x1 3/4"	8.78	4.50	4.16	4.08

1000 Volt DC Working

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F238	1.0	2 1/4x1 13/16x1 1/16"	2.89	1.55	1.43	1.41
16F239	2.0	3 1/8x1 13/16x1 1/16"	3.62	1.93	1.78	1.75
16F240	4.0	4 3/4x2 1/2x1 3/16"	4.85	2.65	2.42	2.37
16F242	8.0	4 3/4x3 3/4x1 1/4"	7.03	3.72	3.43	3.37
16F243	10.0	4 3/4x3 3/4x1 3/4"	8.04	4.22	3.93	3.87

1500 Volt DC Working

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F248	1.0	3 7/8x1 13/16x1 1/16"	3.43	1.83	1.69	1.66

2000 Volt DC Working

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F257	.5	2 7/8x1 13/16x1 1/6"	4.14	2.08	1.91	1.87
16F258	2.0	4 1/4x3 3/4x1 1/4"	5.74	2.95	2.74	2.67
16F286	4.0	3 7/8x3 3/4x2 1/4"	8.00	4.10	4.09	3.85
16F261	8.0	4 3/4x3 3/4x3 3/16"	12.10	6.44	6.14	6.07

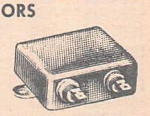
3000 Volt DC Working

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F269	.1	2x2 1/2x1 3/16"	6.97	3.64	3.27	3.14

5000 Volt DC Working

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F278	.1	2 3/4x3 3/4x2 1/4"	7.55	3.99	3.65	3.58
16F279	.25	3 7/8x3 3/4x2 1/4"	8.31	4.36	3.89	3.79
16F281	1.0	4 3/8x4 9/16x3 3/4"	13.85	7.35	6.57	6.41

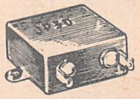
AEROVOX TYPE P30ZN CAPACITORS



Aerolite metallized paper. Sealed metal cases. Range —65°C - +100°C at full rating. Operation to +125° C at 75% V rating. Standard of ±20%. Av. wt., 4 oz.

Stk. No.	Cap.MMF	WVDC	1-24	25-49	50-99	100-499
16F1319	3.0	150	3.22	1.92	1.48	1.32
16F1320	4.0	150	3.87	2.30	1.78	1.58
16F1336	2.0	400	3.67	2.18	1.68	1.49
16F1338	4.0	400	4.86	2.90	2.24	1.99
16F1339	5.0	400	5.87	3.49	2.69	2.39
16F1342	.5	600	2.55	1.52	1.17	1.04
16F1343	1.0	600	3.19	1.90	1.47	1.30
16F1345	3.0	600	5.34	3.18	2.45	2.18

TYPE JP 30M BATHTUBS



High-quality bypass capacitors recommended for applications where high reliability and superior performance is required. Drawn metal cases, hermetically-sealed with neoprene bakelite terminals. These units are Hyvol M impregnated for operation at temperatures from —55°C to +25°C. Standard tolerances +20% - —10%. Wt., 8 oz. **Available on special order with terminals on top or bottom.**

Single Section

Stk. No.	Mfd.	Volts	Size	1-9	10-24	25-49	50-99	100-499
16F053	.5	600	1 3/4x1x1"	1.94	1.32	1.20	.82	.73
16F055	1	600	2x1 3/4x1"	2.25	1.53	1.31	.96	.84
16F056	2	600	2x2x1 3/16"	3.00	2.04	1.74	1.27	1.12
16F067	.25	1000	1 3/4x1x7/8"	1.89	1.29	1.09	.80	.71
16F068	.5	1000	2x1 3/4x7/8"	2.02	1.38	1.17	.86	.76
16F069	.75	1000	2x1 3/4x7/8"	2.39	1.63	1.39	1.02	.90
16F070	1	1000	2x2x1 1/8"	2.76	1.88	1.60	1.18	1.04

Dual Section

16F058	.1-.1	600	1 3/4x1x3/4"	2.39	1.62	1.38	1.01	.89
16F059	.25-.25	600	1 3/4x1x1"	2.46	1.67	1.42	1.05	.92

P83Z MICROMINIATURE TUBULARS

Ultra small metalized-dielectric capacitors. Hyvol K impregnated. Tolerance 25%. In humidity-resistant, molded, thermo-plastic case. Av. wt., 1 oz.

Stk. No.	Mfd.	Volts	Size	1-24	25-49	50-99	100-499
16F465	.004	200	3/16x7/16"	.21	.12	.10	.08
16F450	.005	200	3/16x7/16"	.21	.12	.10	.08
16F451	.01	200	3/16x7/16"	.21	.12	.10	.08
16F464	.02	200	1/4x9/16"	.27	.16	.12	.11
16F466	.04	200	1/4x9/16"	.27	.16	.12	.11
16F452	.002	400	3/16x7/16"	.21	.12	.10	.08
16F453	.003	400	3/16x7/16"	.26	.16	.12	.11
16F454	.008	400	1/4x9/16"	.26	.16	.12	.11
16F455	.01	400	1/4x9/16"	.26	.16	.12	.11
16F456	.0005	600	3/16x7/16"	.21	.12	.10	.08
16F457	.0008	600	3/16x7/16"	.21	.12	.10	.08
16F458	.001	600	3/16x7/16"	.21	.12	.10	.08
16F459	.002	600	1/4x9/16"	.26	.16	.12	.11
16F460	.0022	600	1/4x9/16"				
16F461	.0047	600	1/4x9/16"				
16F462	.005	600	1/4x9/16"				

AEROVOX CERAMIC CAPACITORS

GENERAL PURPOSE BYPASS COUPLING DISKS

Type IDI. Industrial ceramic disk capacitors offering small physical size with high capacity. Used mainly for bypass coupling and filter applications. Maximum protection against humidity, voltage breakdown, vibration. Rated at 500 WVDC, flash tested at 1500 VDC.

500 WVDC Type IDI

Stk. No.	Cap. mmf.	Tol.	Dia. in.	1-24	25-99	100-249	250-499	500-999
16F1800	3.3	±0.5	5/16	.15	.12	.10	.075	.056
16F1801	5.0	±10%	5/16					
16F1802	6.0	±10%	5/16					
16F1803	6.5	±10%	5/16					
16F1804	7.5	±10%	5/16					
16F1805	8.0	±10%	5/16					
16F1806	10	±10%	5/16					
16F1807	15	±10%	5/16					
16F1808	18	±10%	5/16					
16F1809	20	±10%	5/16					
16F1810	22	±10%	5/16					
16F1811	25	±10%	5/16					
16F1812	27	±10%	5/16					
16F1813	30	±10%	5/16					
16F1814	33	±10%	5/16					
16F1815	39	±10%	5/16					
16F1816	47	±10%	5/16					
16F1817	50	±10%	5/16					
16F1818	51	±10%	5/16					
16F1819	56	±10%	5/16					
16F1820	68	±10%	5/16					
16F1821	75	±10%	5/16					
16F1822	82	±10%	5/16					
16F1823	100	±10%	5/16					
16F1824	150	±10%	5/16					
16F1825	180	±10%	5/16					
16F1826	200	±10%	5/16					
16F1827	220	±10%	5/16					
16F1828	250	±10%	5/16					
16F1829	270	±10%	5/16					
16F1830	300	±10%	5/16					
16F1831	330	±10%	5/16					
16F1832	360	±10%	5/16					
16F1833	390	±10%	5/16					
16F1834	400	±10%	5/16					
16F1835	470	±10%	5/16					
16F1836	500	±10%	5/16					
16F1837	560	±10%	5/16					
16F1838	600	±10%	3/8					
16F1839	680	±10%	3/8					
16F1840	820	±10%	3/8					
16F1841	1000	±10%	3/8					
16F1842	1500	±10%	7/16					
16F1843	1800	±10%	19/32					
16F1844	2000	±10%	19/32					
16F1845	2200	±20%	19/32					
16F1846	2700	±20%	19/32					
16F1847	3000	±20%	19/32					
16F1848	3300	±20%	19/32					
16F1849	4700	±20%	19/32					
16F1850	5000	GMV	7/16					
16F1851	5600	GMV	7/16					
16F1852	7500	GMV	19/32					
16F1853	8200	GMV	19/32					
16F1854	10000	±20%	11/16					

DISK CAPACITORS

Type DI. General purpose disk ceramic capacitors with 1000 WVDC. Tolerance: ±10%.

Stk. No.	Cap. mmf	Dia. in.	1-24	25-99	100-249	250-499	500-999
16F1855	3.3	5/16	.15	.12	.10	.075	.056
16F1856	5	5/16					
16F1857	6.8	5/16					
16F1858	10	5/16					
16F1859	15	5/16					
16F1860	18	5/16					
16F1861	20	5/16					
16F1862	22	5/16					
16F1863	25	5/16					
16F1864	27	5/16					
16F1865	30	5/16					
16F1866	33	5/16					
16F1867	39	5/16					
16F1868	47	5/16					
16F1869	50	5/16					
16F1870	56	5/16					
16F1871	68	5/16					
16F1872	82	5/16					
16F1873	100	5/16					
16F1874	150	5/16					
16F1875	180	5/16					
16F1876	200	5/16					
16F1877	220	5/16					
16F1878	250	5/16					

(Continued in next column)

HIGH VOLTAGE DISK CAPACITORS

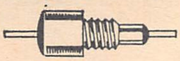
Type HVD. General purpose high voltage, Hi-Q disk ceramic capacitors.

Disk Capacitors Continued

Stk. No.	Cap.	Dia.	1-24	25-99	100-249	250-499	500-999
16F1879	270	5/16	.15	.12	.10	.075	.056
16F1880	300	5/16					
16F1881	330	5/16					
16F1882	390	5/16					
16F1883	470	5/16					
16F1884	500	5/16					
16F1885	560	5/16					
16F1886	680	5/16					
16F1887	820	3/8					
16F1888	1000	3/8					
16F1889	1200	7/16					
16F1890	1500	7/16					
16F1891	2000	19/32					
16F1892	3000	11/16					
16F1893	3300	11/16					
16F1894	4700	3/4					
16F1895	5000	3/4					
16F1896	5600	3/4					
16F1897	7500	29/32					
16F1898	10000	29/32					

HEAVY DUTY FEED-THRU CAPACITORS

Type BLF-ICC. Heavy duty feed-thru capacitors are the same as listed in specification MIL-C-11015. 1¼2 long, ½"-28 thread. 5/16" hex head.



1500 WVDC, ±10% tolerance—Type HVD-15

Stk. No.	Cap. mmf.	Dia. in.	1-24	25-99	100-249	250-499	500-999
16F1899	100	7/16	.21	.17	.14	.105	.079
16F1900	220	7/16					
16F1901	470	9/16					
16F1902	1000	9/16					

3000 WVDC, ±10% tolerance—Type HVD-30

Stk. No.	Cap. mmf.	Dia. in.	1-24	25-99	100-249	250-499	500-999
16F1903	47	9/16	.24	.19	.16	.12	.09
16F1904	56	9/16					
16F1905	68	9/16					
16F1906	82	9/16					
16F1907	100	9/16					
16F1908	120	9/16					
16F1909	150	9/16					
16F1910	180	9/16					
16F1911	220	9/16					
16F1912	330	9/16					
16F1913	390	9/16					
16F1914	470	9/16					
16F1915	560	9/16					
16F1916	820	9/16					
16F1917	1000	9/16					
16F1918	1500	9/16					
16F1919	2200	9/16					
16F1920	3300	11/16					

6000 WVDC, ±10% tolerance—Type HVD-60

Stk. No.	Cap. mmf.	Dia. in.	1-24	25-99	100-249	250-499	500-999
16F1921	56	11/16	.39	.31	.26	.195	.146
16F1922	68	11/16					
16F1923	82	11/16					
16F1924	100	11/16					
16F1925	120	11/16					
16F1926	220	11/16					
16F1927	470	11/16					

TRANSISTOR DISK CAPACITORS

Type TTD. Square miniature disk capacitors for all applications where size is a factor, such as transistor radios and industrial applications with limited space. Rated at 100 WVDC.

Stk. No.	Cap. mmf.	Tol. %	WVDC	Part No.	1-24	25-99	100-249	250-499	500-999
16F1928	10	±10	1000	AXCK70AX100K	1.20	.95	.80	.60	.45
16F1929	33	±10	1000	AXCK70AX330K					
16F1930	47	±10	1000	AXCK70AX470K					
16F1931	68	±10	1000	AXCK70AX680K					
16F1932	100	±10	1000	AXCK70AX101K					
16F1933	470	±10	500	AXCK70AX471K					
16F1934	680	±10	500	AXCK70AX681K					
16F1935	1000	±20	500	AXCK70AW102K					
16F1936	1500	±20	500	AXCK70AW152K					

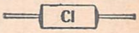
100 WVDC

Stk. No.	Cap. mrd.	LxW in.	1-24	25-99	100-249	250-499	500-999
16F1937	.005	.280x.280	.24	.19	.16	.12	.09
16F1938	.01	.340x.340	.24	.19	.16	.12	.09
16F1939	.02	.430x.430	.30	.24	.20	.15	.113
16F1940	.025	.465x.465	.30	.24	.20	.15	.113
16F1941	.03	.465x.465	.30	.24	.20	.15	.113
16F1942	.05	.535x.535	.36	.29	.24	.18	.135
16F1943	.1	.700x.700	.54	.43	.36	.27	.203

AEROVOX INDUSTRIAL CERAMIC CAPACITORS

Temperature Compensating Tubulars

Popular values in accordance with the latest revision of specification MIL-C-20 and EIA specification RS-198. Uninsulated units are furnished color code, packaged in bulk. Insulated units are stamped with MIL part number, temperature coefficient capacity and tolerance. Voltage rated at 500 VDCW.



NPO Uninsulated Type CN

Stk. No.	Cap.	MIL. No.	1-24	25-99	100-249	250-499	500-999
10F1944	.3	CC20CK0R3C	.30	.24	.20	.15	.113
16F1945	.5	CC20CK0R5C					
16F1946	1.0	CC20CK010C					
16F1947	2.2	CC20CK2R2C					
16F1948	3.0	CC20CJ030C					
16F1949	5.0	CC20CH050C					
16F1950	7.0	CC20CH070C					
16F1951	10.0	CC20CH100C					
16F1952	12.0	CC20CH120G					
16F1953	22.0	CC20CH220G					
16F1954	27	CC25CH270G					
16F1955	33	CC25CH330G					

Stk. No.	Cap.	MIL. No.	1-24	25-99	100-249	250-499	500-999
16F1956	39	CC25CH390J	.30	.24	.20	.15	.113
16F1957	47	CC25CH470J					
16F1958	56	CC32CG560J					
16F1959	68	CC32CG680J					
16F1960	75	CC32CG750J					
16F1961	82	CC32CG820J					
16F1962	100	CC32CG101G					
16F1963	150	CC35CG151G	.45	.38	.30	.225	.169
16F1964	220	CC45CG221G	.60	.48	.40	.30	.225
16F1965	270	CC45CG271F	.90	.71	.60	.45	.338
16F1966	300	CC45CG301F	.90	.71	.60	.45	.338

Insulated Type C1

Stk. No.	Cap.	MIL. No.	1-24	25-99	100-249	250-499	500-999
16F1967	.3	CC21CK0R3C	.30	.24	.20	.15	.113
16F1968	.5	CC21CK0R5C					
16F1969	.68	CC21CKR68C					
16F1970	.75	CC21CKR75C					
16F1971	1	CC21CK010C					
16F1972	2.2	CC21CK2R2C					
16F1973	3	CC21CJ030C					
16F1974	4	CC21CH040C					
16F1975	6	CC21CH060C					

Stk. No.	Cap.	MIL. No.	1-24	25-99	100-249	250-499	500-999
16F1976	12	CC21CH120G	.30	.24	.20	.15	.113
16F1977	15	CC21CH150G					
16F1978	18	CC21CH180G					
16F1979	20	CC21CH200G					
16F1980	27	CC26CH270G					
16F1981	39	CC26CH390J					
16F1982	47	CC36CH470J					
16F1983	68	CC36CG680J					
16F1984	82	CC36CG820J					
16F1985	100	CC36CG101J					

Type N750 CN Temperature Compensating Tubulars
Uninsulated

Stk. No.	Cap.	MIL. No.	1-24	25-99	100-249	250-499	500-999
16F1986	.5	CC20UK0R5C	.30	.24	.20	.15	.113
16F1987	5.0	CC20UJ050C					
16F1988	15.0	CC20UJ150G					
16F1989	39.0	CC20UJ390J					
16F1990	47.0	CC20UJ470J					
16F1991	75.0	CC25UJ750J					

Stk. No.	Cap.	MIL. No.	1-24	25-99	100-249	250-499	500-999
16F1992	100.0	CC25UJ101G	.30	.24	.20	.15	.113
16F1993	150	CC25UJ151G					
16F1994	220	CC32UJ221G					
16F1995	330	CC35UJ331F	.90	.71	.60	.45	.338
16F1996	470	CC45UJ471F	.90	.71	.60	.45	.338

Type N750 C1 Temperature Compensating Tubulars
Insulated

Stk. No.	Cap.	MIL. No.	1-24	25-99	100-249	250-499	500-999
16F1997	24.0	CC21UJ240G	.30	.24	.20	.15	.113
16F1998	39.0	CC21UJ390J					
16F1999	51.0	CC21UJ510J					
16F2000	150	CC36UJ151J					

Stk. No.	Cap.	MIL. No.	1-24	25-99	100-249	250-499	500-999
16F2001	220	CC36UJ221J	.60	.48	.40	.30	.225
16F2002	270	CC36UJ271J	.60	.48	.40	.30	.225
16F2003	330	CC36UJ331F	.60	.48	.40	.30	.225

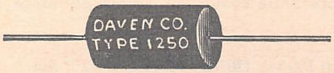
Type BPD Bypass and Coupling GMV Capacitors
1000 VDCW

Stk. No.	Cap.	Dia.	1-24	25-99	100-249	250-499	500-999
16F2004	.001	5/16	.15	.12	.10	.075	.056
16F2005	.0015	5/16					
16F2006	.002	3/8					
16F2007	.0022	3/8					
16F2008	.0025	3/8					
16F2009	.0033	7/16					
16F2010	.004	7/16					
16F2011	.0047	19/32					

Stk. No.	Cap.	Dia.	1-24	25-99	100-249	250-499	500-999
16F2012	.005	19/32	.15	.12	.10	.075	.056
16F2013	.0068	19/32	.15	.12	.10	.075	.056
16F2014	.01	3/4	.18	.14	.12	.09	.067
16F2015	.015	29/32	.24	.28	.16	.12	.09
16F2016	.02	29/32	.36	.29	.24	.18	.135
16F2017	.03	29/32	.39	.31	.26	.195	.146
16F2018	.05	29/32	.42	.33	.19	.15	.113

DAVEN RESISTORS

DAVEN
ENCAPSULATED RESISTORS



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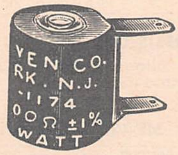


1174

10F000. Model 1250 Lead Type. Specify value from below.

MODEL 1250 AND MODEL 1195 AXIAL LEAD TYPES

Meet MIL-R-93B requirements. Meets AFRT-10 requirements from 100 ohms to 100K ohms. Accuracy of ±1%. Designed to dissipate their rated wattage at an 80° ambient temperature with a 25°C rise. Non-inductive—Model 1250: 1/4x1/2'', .33 watt; Model 1195: 1/4x3/4'', .5 watt.

MODEL 1174 LUG TYPES

Same as above except with lugs. 1/2x5/8'', .6 watt. Meets MIL-R-9444, AFRT-18.

Ohms	1-9	10-24	25-99	100-499	Ohms	1-9	10-24	25-99	100-499
1	1.49	.95	.81	.72	100	1.49	.95	.81	.72
10	1.49	.95	.81	.72	150	1.49	.95	.81	.72
20	1.49	.95	.81	.72	200	1.49	.95	.81	.72
40	1.49	.95	.81	.72	300	1.49	.95	.81	.72
50	1.49	.95	.81	.72	400	1.49	.95	.81	.72

Ohms	1-9	10-24	25-99	100-499	Ohms	1-9	10-24	25-99	100-499
500	1.49	.95	.81	.72	47K	2.00	1.29	1.08	.96
600	1.49	.95	.81	.72	50K	2.00	1.29	1.08	.96
1000	1.49	.95	.81	.72	56K	2.20	1.41	1.20	1.06
1500	1.49	.95	.81	.72	60K	2.20	1.41	1.20	1.06
2000	1.49	.95	.81	.72	70K	2.20	1.41	1.20	1.06
3000	1.49	.95	.81	.72	75K	2.20	1.41	1.20	1.06
4000	1.49	.95	.81	.72	80K	2.32	1.51	1.27	1.13
5000	1.49	.95	.81	.72	82K	2.32	1.51	1.27	1.13
6000	1.56	.99	.84	.75	100K	2.32	1.51	1.27	1.13
8000	1.56	.99	.84	.75	120K	2.40	1.58	1.32	1.17
10000	1.56	.99	.84	.75	150K	2.55	1.69	1.42	1.25
15K	1.69	1.09	.91	.81	160K	2.72	1.80	1.50	1.33
18K	1.69	1.09	.91	.81	180K	2.84	1.87	1.58	1.39
20K	1.69	1.09	.91	.81	200K	2.84	1.87	1.58	1.39
22K	1.69	1.09	.91	.81	220K	3.03	2.04	1.71	1.51
25K	1.69	1.09	.91	.81	250K	3.03	2.04	1.71	1.51
30K	2.00	1.29	1.08	.96	300K	3.35	2.21	1.84	1.63
40K	2.00	1.29	1.08	.96	400K	3.84	2.53	2.10	1.85
43K	2.00	1.29	1.08	.96	500K	4.46	2.94	2.45	2.15

Stock No.	Model	Ohms	Description	1-9	10-24	25-99	100-499
10F005	1195	750K	Axial Leads	5.82	3.82	3.17	2.77
10F005	1195	1 Meg	Axial Leads	6.55	4.29	3.56	3.11
10F015	1174	750K	Lug Leads	5.82	3.82	3.17	2.77
10F015	1174	1 Meg	Lug Leads	6.55	4.29	3.56	3.11

PRECISION FILM RESISTORS

Mil Standard Resistance Values

Specify Stock Number and Resistance.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Meg	Meg
10.0	22.1	47.5	105	232	511	1130	2490	5490	12.1K	26.7K	59.0K	130K	287K	634K	1.33	2.94
10.2	22.6	48.7	107	237	523	1150	2550	5620	12.4K	27.4K	60.4K	133K	294K	649K	1.37	3.01
10.5	23.2	49.9	110	243	536	1180	2610	5760	12.7K	28.0K	61.9K	137K	301K	665K	1.40	3.09
10.7	23.7	51.1	113	249	549	1210	2670	5900	13.0K	28.7K	63.4K	140K	309K	681K	1.43	3.16
11.0	24.3	52.3	115	255	562	1240	2740	6040	13.3K	29.4K	64.9K	143K	316K	698K	1.47	3.24
11.3	24.9	53.6	118	261	576	1270	2800	6190	13.7K	30.1K	66.5K	147K	324K	715K	1.50	3.32
11.5	25.5	54.9	121	267	590	1300	2870	6340	14.0K	30.9K	68.1K	150K	332K	732K	1.54	3.40
11.8	26.1	56.2	124	274	604	1330	2940	6490	14.3K	31.6K	69.8K	154K	340K	750K	1.58	3.48
12.1	26.7	57.6	127	280	619	1370	3010	6650	14.7K	32.4K	71.5K	158K	348K	768K	1.62	3.57
12.4	27.4	59.0	130	287	634	1400	3090	6810	15.0K	33.2K	73.2K	162K	357K	787K	1.65	3.65
12.7	28.0	60.4	133	294	649	1430	3160	6980	15.4K	34.0K	75.0K	165K	365K	806K	1.69	3.74
13.0	28.7	61.9	137	301	665	1470	3240	7150	15.8K	34.8K	76.8K	169K	374K	825K	1.74	3.83
13.3	29.4	63.4	140	309	681	1500	3320	7320	16.2K	35.7K	78.7K	174K	383K	845K	1.78	3.92
13.7	30.1	64.9	143	316	698	1540	3400	7500	16.5K	36.5K	80.6K	178K	392K	866K	1.82	4.02
14.0	30.9	66.5	147	324	715	1580	3480	7680	16.9K	37.4K	82.5K	182K	402K	887K	1.87	4.12
14.3	31.6	68.1	150	332	732	1620	3570	7870	17.4K	38.3K	84.5K	187K	412K	909K	1.91	4.22
14.7		69.8	154	340	750	1650	3650	8060	17.8K	39.2K	86.6K	191K	422K	931K	1.96	4.32
15.0	32.4	71.5	158	348	768	1690	3740	8250	18.2K	40.2K	88.7K	196K	432K	953K	2.00	4.42
15.4	33.2	73.2	162	357	787	1740	3830	8450	18.7K	41.2K	90.9K	200K	442K	976K	2.05	4.53
15.8	34.0	75.0	165	365	806	1780	3920	8660	19.1K	42.2K	93.1K	205K	453K	**Meg**	2.10	4.64
16.2	34.8	76.8	169	374	825	1820	4020	8870	19.6K	43.2K	95.3K	210K	464K		2.15	4.75
16.5	35.7	78.7	174	383	845	1870	4120	9090	20.0K	44.2K	97.6K	215K	475K	1.00	2.21	4.87
16.9	36.5	80.6	178	392	866	1910	4220	9310	20.5K	45.3K	100K	221K	487K	1.02	2.26	4.99
17.4	37.4	82.5	182	402	887	1960	4320	9530	21.0K	46.4K	102K	226K	499K	1.05	2.32	5.11
17.8	38.3	84.5	187	412	909	2000	4420	9760	21.5K	47.5K	105K	232K	511K	1.07	2.37	5.23
18.2	39.2	86.6	191	422	931	2050	4530	10.0K	22.1K	48.7K	107K	237K	523K	1.10	2.43	5.36
18.7	40.2	88.7	196	432	953	2100	4640	10.2K	22.6K	49.9K	110K	243K	536K	1.13	2.49	5.49
19.1	41.2	90.9	200	442	976	2150	4750	10.5K	23.2K	51.1K	113K	249K	549K	1.15	2.55	5.62
19.6	42.2	93.1	205	453	1000	2210	4870	10.7K	23.7K	52.3K	115K	255K	562K	1.18	2.61	5.76
20.0	43.2	95.3	210	464	1020	2260	4990	11.0K	24.3K	53.6K	118K	261K	576K	1.21	2.67	5.90
20.5	44.2	97.6	215	475	1050	2320	5110	11.3K	24.9K	54.9K	121K	267K	590K	1.24	2.74	6.04
21.0	45.3	100	221	487	1070	2370	5230	11.5K	25.5K	56.2K	124K	274K	604K	1.27	2.80	6.19
21.5	46.4	102	226	499	1100	2430	5360	11.8K	26.1K	57.6K	127K	280K	619K	1.30	2.87	6.34

TYPE DCM PRECISION CARBON RESISTORS

RN70R
1003F

Precision carbon film plastic encapsulated resistors. Exclusive R-Type protective coating assures lot-to-lot uniformity for protection of the carbon film and termination. Resistance element: Carbon film applied to clean steatite substrate. Soft copper hot tinned terminal leads. Max. voltage coefficient is less than .002% per volt. Load life at 70°C for 1000 hours in cycles of 1½ hour on, and ½ hour off, max. change less than 1% of value. Operating temperature: —65°C to +125°C with max. change of 0.5%. Humidity less than 1.5% in accordance with MIL-R-10509 specification. Noise less than 0.5 microvolts per volt.

DCM-½ 1% tol. ½ watt (RN70B/D) At — .015: .755 L. x .260" dia.

Stock No.	Resis. Range	1-24	25-99	100-249	250-499	500-999	1000-9999
58F005	10 ohms-49.9 ohms	.91	.48	.35	.20	.18	.16
	50 ohms-2.6 meg.	.85	.45	.32	.19	.17	.15

DCM-⅛ 1% tol. ⅛ watt (RN60B/D) At ±.015: .400 L. x .135" dia.

Stock No.	Resis. Range	1-24	25-99	100-249	250-499	500-999	1000-4999
58F003	10 ohms-24.9 ohms	1.78	.95	.69	.42	.35	.32
	25 ohms-49.9 ohms	1.18	.63	.46	.28	.23	.21
	50 ohms-500 ohms	1.02	.55	.39	.24	.20	.18
	501 ohms-500K	.96	.52	.38	.22	.20	.17
	501K-1 megohm	1.02	.55	.39	.24	.20	.18

DCM-¼ 1% tol. ¼ watt (RN65B/D) At ± .015: .595 L. x .215" dia.

Stock No.	Resis. Range	1-24	25-99	100-249	250-499	500-999	1000-4999
58F004	10 ohms-49.9 ohms	.99	.52	.38	.22	.19	.17
	50 ohms-500K	.94	.49	.35	.20	.18	.16
	501K-1 megohm	.99	.52	.38	.22	.19	.17
	1.1 meg.-2.1 meg.	1.08	.57	.40	.24	.20	.19

TYPE CF PRECISION FILM RESISTORS

Technical specifications similar to DCM type, except: Load Life; Subjected to 125°C under full load for 1000 hours; the change is less than 1%. Humidity: Subjected to 95% humidity with full wattage using method 106A-MIL-Std. 202A for 250 hours, the change is less than 1.5%.

CF-⅛ 1% tol. ⅛ watt (RN60B/D) .375 L. x .140" dia.

Stock No.	Resis. Range	1-24	25-99	100-249	250-499	500-999	1000-4999
58F000	10 ohms-49.9 ohms	1.10	.64	.45	.29	.24	.22
	50 ohms-500 ohms	.61	.44	.33	.22	.19	.16
	501 ohms-1 megohm	.55	.41	.31	.20	.18	.15

CF-¼ 1% tol. ¼ watt (RN65B/D) .625 L. x .187" dia.

Stock No.	Resis. Range	1-24	25-99	100-249	250-499	500-999	1000-4999
58F001	10 ohms-99.9 ohms	.95	.50	.35	.21	.18	.16
	100 ohms-750K	.50	.38	.28	.18	.16	.14
	751K-2 megohms	.95	.50	.35	.21	.18	.16

CF-½ 1% tol. ½ watt (RN70B/D) .750 L. x .250" dia.

Stock No.	Resis. Range	1-24	25-99	100-249	250-499	500-999	1000-4999
58F002	10 ohms-49.9 ohms	.88	.46	.32	.19	.17	.15
	50 ohms-1.5 meg.	.50	.38	.28	.18	.16	.14
	1.51 meg.-2.5 meg.	.88	.46	.32	.19	.17	.15

TYPE MF METAL FILM RESISTORS (Molded)

Molded metal film precision resistors equal or surpass precision wire wound resistors in accuracy, reliability and stability, yet are smaller in size and offer better RF performance. Negligible voltage coefficient. Low temperature coefficient. Low capacitance and inductance.

MF-⅛ T-2 (50 PPM) 1% tol. ⅛ watt (RN60C) .406 L. x .135" dia.

Stock No.	Resis. Range	1-24	25-99	100-249	250-499	500-999	1000-4999
58F006	30.1 ohms-200K	2.07	1.53	1.22	1.04	.95	.90
	201K-499K	2.25	1.67	1.35	1.13	1.04	.99

MF-¼ T-2 (50 PPM) ¼ watt 1% tol. (RN65C) .594 L. x .210" dia.

Stock No.	Resis. Range	1-24	25-99	100-249	250-499	500-999	1000-4999
58F007	49.9 ohms-200K	1.98	1.44	1.13	.95	.86	.83
	201K-1 megohm	2.16	1.58	1.26	1.04	.95	.90

NOTE: All types and values of Electra resistors are available from NEWARK on special order. Values other than listed in the above chart are available at 10% additional cost. Minimum order for any value not listed above is $5.00.

- **Newark Ships Immediately from Complete Stocks of Electronic Parts**
- **Make Newark Your One Point Source for All Your Electronic Needs**
- **Buy from Newark at Factory Competitive Prices**

NEWARK CAN SUPPLY
THE COMPLETE TI LINE

TEXAS INSTRUMENTS RESISTORS

TEXAS INSTRUMENTS SENSISTOR® SILICON RESISTORS

Positive TC of .7% °/C for temp. compensation and sensing. TM-¼ and ⅛ are ±10% tol. Size ¼" dia. x ½" L. Axial leads. Molded case. Full load at 100°C. Type TC ⅛ has round welded case. Has glass to metal hermetically sealed between case and leads. ±10% tol. Full load at 125°C. Size: ⅜" dia. x ¼" H. Wt. 1 oz.

TM ¼
TM⅛

TC ⅛

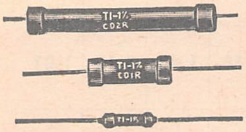
Stk. No.	Type	Watts	1-49	50-249	250-499	500-999
12F055	TM-¼†	¼	4.00	3.50	3.00	2.50
12F052	TM-⅛*	⅛	5.00	4.50	4.00	3.20
12F050	TC-⅛††	⅛	5.00	4.50	4.00	3.20

†10 ohms thru 10K ohms. *10 ohms thru 5.6K ohms ††68 ohms thru 5.6K ohms.

OHMS

10	22	47	100	220	470	820	1800	3900	6800
12	27	56	120	270	500	1000	2200	4700	8200
15	33	68	150	330	560	1200	2700	5000	10000
18	39	82	180	390	680	1500	3300	5600	

MIL-LINE CARBON FILM RESISTORS



These precision, newly designed resistors meet or exceed all requirements of MIL-R-10509 specifications for characteristic X. They have a high degree of stability and reliance—made with ±1% resistance tolerance. Extreme accuracy and stable operation is assured under any environmental conditions . . . will withstand moisture, shock and abrasion. Full rated load at 70° C. Insulation resistance greater than 50,000 megohms. Negligible noise level for most applications. Ideal for high frequency and other uses where an economical, rugged, and long-life resistor is indicated.

Stock No.	Type	Mil Type	Resistance Range	Watts	1-24	25-99	100-249	250-499	500-999
12F080	CD½MR	RN20X	10 ohms-49.9 ohms	½	.64	.34	.27	.20	.16
12F080	CD½MR	RN20X	51.1 ohms-2 meg.	½	.54	.28	.21	.13	.11
12F080	CD½MR	RN20X	2.21. meg-4.99 meg.	½	.74	.39	.28	.18	.15
12F085	CD1R	RN25X	10 ohms-99.9 ohms	1	.94	.47	.36	.25	.21
12F085	CD1R	RN25X	100 ohms-4.99 meg.	1	.81	.43	.31	.19	.18
12F085	CD1R	RN25X	5.11 meg.-10 meg.	1	.89	.47	.36	.24	.22
12F090	CD2R	RN30X	51.1 ohms-196 ohms	2	1.21	.64	.48	.31	.28
12F090	CD2R	RN30X	200 ohms-9.76 meg.	2	.97	.51	.38	.25	.23
12F090	CD2R	RN30X	10 meg.-24.9 meg.	2	1.13	.59	.46	.33	.28
12F090	CD2R	RN30X	30.1 meg.-49.9 meg.	2	2.11	1.10	.88	.65	.53
12F100	CD¼R	RN10X	10 ohms-49.9 ohms	¼	.80	.36	.34	.22	.18
12F100	CD¼R	RN10X	51.1 ohms-1 meg.	¼	.61	.28	.26	.20	.17
12F105	CD⅛R	....	10 ohms-49.9 ohms	⅛	1.21	.57	.46	.27	.23
12F105	CD⅛R	....	51.1 ohms-499 K ohms	⅛	.93	.44	.36	.22	.19
12F105	CD⅛R	....	511 K ohms-1 meg.	⅛	.93	.44	.36	.23	.20

Available in Mil Values as shown in table below.

GLASS HERMETIC RESISTORS

Hermetically sealed in hard glass for stability and reliability. Impervious to moisture. 1% ohmic tolerance. Meets or exceeds all requirements of Specification MIL-R-10509C for Characteristic B. Alloy end caps high-temperature sealed to glass shell. Size: CG ⅛-0.240 Length x 0.125 dia. CG ¼-0.360 Length x 0.140 diameter.

Stk. No.	Type	Watts		Mil Type	Resis. Range	Volts	1-24	25-99	100-249	250-499	500-999
		Ti	Mil								
12F110	CG ⅛	⅛	....	....	10 ohms-24.9 ohms	250	1.88	1.00	.73	.45	.37
12F110	CG ⅛	⅛	....	....	25.5 ohms-49.9 ohms	250	1.25	.67	.49	.30	.25
12F110	CG ⅛	⅛	....	....	51.1 ohms-499 ohms	250	1.08	.58	.42	.26	.22
12F110	CG ⅛	⅛	....	....	511 ohms-100K ohms	250	1.02	.55	.40	.29	.21
12F115	CG ¼	¼	⅛	RN60B	24.9 ohms-49.9 ohms	350	1.25	.67	.49	.30	.25
12F115	CG ¼	¼	⅛	RN60B	51.1 ohms-499 ohms	350	1.08	.58	.42	.26	.22
12F115	CG ¼	¼	⅛	RN60B	511 ohms-499K ohms	350	1.02	.55	.40	.24	.21
12F115	CG ¼	¼	⅛	RN60B	511 K ohms-1 megohm	350	1.08	.58	.42	.26	.22

MOLDED DEPOSITED CARBON FILM RESISTORS

TI molded resistors meet MIL-R-10905B. ±1% resistance tolerance. Dim: CDM ⅛-.14Dx.406; CDM¼-.2Dx.585; CDM½-.25Dx .75. Full rated load at 70°C ambient. High dielectric strength of insulation, negligible noise level. Excellent moisture resistance and overload capacity.

Stk. No.	Type	Mil Type	Watts	Ohms	1-24	25-99	100-249	250-499	500-999
12F060	CDM⅛	RN60B	⅛	10 ohms-24.9 ohms	1.78	.95	.69	.42	.35
12F060	CDM⅛	RN60B	⅛	25.5 ohms-49.9 ohms	1.18	.63	.46	.28	.23
12F060	CDM⅛	RN60B	⅛	51.1 ohms-499 ohms	1.02	.55	.39	.24	.20
12F060	CDM⅛	RN60B	⅛	511 ohms-499 K ohms	.96	.52	.38	.22	.20
12F060	CDM⅛	RN60B	⅛	511 K ohms-1 megohm	1.02	.55	.39	.24	.20
12F065	CDM¼	RN65B	¼	10 ohms-49.9 ohms	.99	.52	.38	.22	.19
12F065	CDM¼	RN65B	¼	51.1 ohms-499 K ohms	.94	.49	.35	.20	.18
12F065	CDM¼	RN65B	¼	511 K ohms-1 megohm	.99	.52	.38	.22	.19
12F070	CDM½	RN70B	½	10 ohms-49.9 ohms	.91	.48	.35	.20	.18
12F070	CDM½	RN70B	½	51.1 ohms-2.15 megohms	.85	.45	.32	.19	.17
12F070	CDM½	RN70B	½	2.21 megohms-4.99 megohms	1.03	.55	.39	.23	.21

Mil Standard Resistance Values

Specify Stock Number and Resistance

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Meg.	Meg.
10.0	22.1	47.5	105	232	511	1130	2490	5490	12.1K	26.7K	59.0K	130K	287K	634K	1.33	2.94
10.2	22.6	48.7	107	237	523	1150	2550	5620	12.4K	27.4K	60.4K	133K	294K	649K	1.37	3.01
10.5	23.2	49.9	110	243	536	1180	2610	5760	12.7K	28.0K	61.9K	137K	301K	665K	1.40	3.09
10.7	23.7	51.1	113	249	549	1210	2670	5900	13.0K	28.7K	63.4K	140K	309K	681K	1.43	3.16
11.0	24.3	52.3	115	255	562	1240	2740	6040	13.3K	29.4K	64.9K	143K	316K	698K	1.47	3.24
11.3	24.9	53.6	118	261	576	1270	2800	6190	13.7K	30.1K	66.5K	147K	324K	715K	1.50	3.32
11.5	25.5	54.9	121	267	590	1300	2870	6340	14.0K	30.9K	68.1K	150K	332K	732K	1.54	3.40
11.8	26.1	56.2	124	274	604	1330	2940	6490	14.3K	31.6K	69.8K	154K	340K	750K	1.58	3.48
12.1	26.7	57.6	127	280	619	1370	3010	6650	14.7K	32.4K	71.5K	158K	348K	768K	1.62	3.57
12.4	27.4	59.0	130	287	634	1400	3090	6810	15.0K	33.2K	73.2K	162K	357K	787K	1.65	3.65
12.7	28.0	60.4	133	294	649	1430	3160	6980	15.4K	34.0K	75.0K	165K	365K	806K	1.69	3.74
13.0	28.7	61.9	137	301	665	1470	3240	7150	15.8K	34.8K	76.8K	169K	374K	825K	1.74	3.83
13.3	29.4	63.4	140	309	681	1500	3320	7320	16.2K	35.7K	78.7K	174K	383K	845K	1.78	3.92
13.7	30.1	64.9	143	316	698	1540	3400	7500	16.5K	36.5K	80.6K	178K	392K	866K	1.82	4.02
14.0	30.9	66.5	147	324	715	1580	3480	7680	16.9K	37.4K	82.5K	182K	402K	887K	1.87	4.12
14.3	31.6	68.1	150	332	732	1620	3570	7870	17.4K	38.3K	84.5K	187K	412K	909K	1.91	4.22
14.7		69.8	154	340	750	1650	3650	8060	17.8K	39.2K	86.6K	191K	422K	931K	1.96	4.32
15.0	32.4	71.5	158	348	768	1690	3740	8250	18.2K	40.2K	88.7K	196K	432K	953K	2.00	4.42
15.4	33.2	73.2	162	357	787	1740	3830	8450	18.7K	41.2K	90.9K	200K	442K	976K	2.05	4.53
15.8	34.0	75.0	165	365	806	1780	3920	8660	19.1K	42.2K	93.1K	205K	453K		2.10	4.64
16.2	34.8	76.8	169	374	825	1820	4020	8870	19.6K	43.2K	95.3K	210K	464K	**Meg.**	2.15	4.75
16.5	35.7	78.7	174	383	845	1870	4120	9090	20.0K	44.2K	97.6K	215K	475K	1.00	2.21	4.87
16.9	36.5	80.6	178	392	866	1910	4220	9310	20.5K	45.3K	100K	221K	487K	1.02	2.26	4.99
17.4	37.4	82.5	182	402	887	1960	4320	9530	21.0K	46.4K	102K	226K	499K	1.05	2.32	5.11
17.8	38.3	84.5	187	412	909	2000	4420	9760	21.5K	47.5K	105K	232K	511K	1.07	2.37	5.23
18.2	39.2	86.6	191	422	931	2050	4530	10.0K	22.1K	48.7K	107K	237K	523K	1.10	2.43	5.36
18.7	40.2	88.7	196	432	953	2100	4640	10.2K	22.6K	49.9K	110K	243K	536K	1.13	2.49	5.49
19.1	41.2	90.9	200	442	976	2150	4750	10.5K	23.2K	51.1K	113K	249K	549K	1.15	2.55	5.62
19.6	42.2	93.1	205	453	1000	2210	4870	10.7K	23.7K	52.3K	115K	255K	562K	1.18	2.61	5.76
20.0	43.2	95.3	210	464	1020	2260	4990	11.0K	24.3K	53.6K	118K	261K	576K	1.21	2.67	5.90
20.5	44.2	97.6	215	475	1050	2320	5110	11.3K	24.9K	54.9K	121K	267K	590K	1.24	2.74	6.04
21.0	45.3	100	221	487	1070	2370	5230	11.5K	25.5K	56.2K	124K	274K	604K	1.27	2.80	6.19
21.5	46.4	102	226	499	1100	2430	5360	11.8K	26.1K	57.6K	127K	280K	619K	1.30	2.87	6.34

OHMITE ADJUSTABLE DIVIDOHMS

"Dividohm" Vitreous Enameled Resistors make ideal voltage dividers for original equipment and replacement in transmitters, rectifiers and other apparatus. Handy for obtaining odd resistance values, for adjusting circuits and for use on equipment which must be set to meet various line voltages. Tolerance: 10%. Avg. Shipping wt.: 10-50 Watts, 4.0 oz.; 100-200 Watts, 1 lb.

10 WATT—1¾"x5/16"

Stock No.	Type	Resis. Ohms	Max. Mils.	1-9	10-24	25-99	100-249
13F500	1001	1	3,160	1.14	.97	.80	.68
13F501	1002	2	2,240				
13F502	1003	3	1,830				
13F503	1004	5	1,410				
13F504	1005	7.5	1,160				
13F505	1006	10	1,000	1.14	.97	.80	.68
13F506	1007	15	820				
13F507	1008	20	710				
13F508	1009	25	630				
13F509	1010	50	450				
13F510	1011	75	370	1.14	.97	.80	.68
13F511	1012	100	320				
13F512	1013	150	260				
13F513	1014	200	220				
13F514	1015	250	200				
13F515	1016	300	180	1.14	.97	.80	.68
13F516	1017	350	170				
13F517	1018	400	160				
13F518	1019	500	140				
13F519	1020	600	130				
13F520	1021	750	120				
13F521	1022	800	110				
13F522	1023	1,000	100				
13F523	1024	1,250	89	1.18	1.00	.83	.71
13F524	1025	1,500	81				
13F525	1026	2,000	71				
13F526	1027	2,250	66				
13F527	1028	2,500	63				
13F528	1029	3,000	57				
13F529	1030	3,500	53				
13F530	1031	4,000	50				
13F531	1032	4,500	47				
13F532	1033	5,000	45				
13F533	1034	6,000	41	1.27	1.08	.89	.76
13F534	1035	7,000	38				
13F535	1036	7,500	36				
13F536	1037	8,000	35				
13F537	1038	8,500	34				
13F538	1039	9,000	33				
13F539	1040	10,000	32				

25 WATT—2"x9/16"

Stock No.	Type	Resis. Ohms	Max. Mils.	1-9	10-24	25-99	100-249
13F550	0360	1	5,000	1.29	1.10	.90	.77
13F551	0360B	2	3,540				
13F552	0361	3	2,880				
13F553	0362	5	2,240				
13F554	0362B	7.5	1,820				
13F555	0363	10	1,580	1.29	1.10	.90	.77
13F556	0364	15	1,290				
13F557	0364B	20	1,120				
13F558	0365	25	1,000				
13F559	0366	50	710				
13F560	0367	75	580	1.29	1.10	.90	.77
13F561	0368	100	500				
13F562	0369	150	410				
13F563	0370	200	350				
13F564	0371	250	320				
13F565	0371B	300	290	1.29	1.10	.90	.77
13F566	0371C	400	250				
13F567	0372	500	220				
13F568	0373	750	180				
13F569	0374	800	170				
13F570	0375	1,000	160				
13F571	0375B	1,250	140	1.32	1.12	.92	.79
13F572	0376	1,500	130				
13F573	0377	2,000	120				
13F574	0377B	2,250	110				
13F575	0378	2,500	100				
13F576	0379	3,000	91				
13F577	0380	3,500	84				
13F578	0381	4,000	79				
13F579	0381B	4,500	74				
13F580	0382	5,000	70				
13F581	0383	6,000	64	1.42	1.21	.99	.85
13F582	0383B	7,000	60				
13F584	0384	7,500	57				
13F585	0384B	8,000	55				
13F586	0384C	9,000	52				
13F587	0385	10,000	50				
13F588	0386	12,000	42	1.47	1.25	1.03	.88
13F589	0387	15,000	36	1.47	1.25	1.03	.88
13F590	0388	20,000	31	1.47	1.25	1.03	.88
13F591	0389	25,000	28	1.61	1.37	1.13	.97

50 WATT—4"x9/16"

Stock No.	Type	Resis. Ohms	Max. Mils.	1-9	10-24	25-99	100-249
13F600	0560	5	3,160	1.68	1.43	1.18	1.01
13F601	0561	10	2,230				
13F602	0562	25	1,410				
13F603	0563	50	1,000				
13F604	0564	75	820				
13F605	0565	100	710	1.68	1.43	1.18	1.01
13F606	0566	150	580				
13F607	0567	200	500				
13F608	0568	250	450				
13F609	0568B	300	410				
13F610	0568C	400	350	1.68	1.43	1.18	1.01
13F611	0569	500	320				
13F612	0570	750	260				
13F639	0571	800	250				
13F613	0572	1,000	220				
13F614	0572B	1,250	200	1.71	1.45	1.20	1.03
13F615	0573	1,500	180				
13F616	0574	2,000	160				
13F617	0575	2,500	140				
13F618	0576	3,000	130				
13F619	0576B	3,500	120				
13F620	0577	4,000	110				
13F621	0577B	4,500	100				
13F622	0578	5,000	100				
13F623	0578B	6,000	91	1.80	1.53	1.26	1.08
13F624	0578C	7,000	84				
13F625	0579	7,500	81				
13F626	0580	8,000	79				
13F627	0580B	9,000	74				
13F628	0581	10,000	71				
13F629	0582	12,000	64	1.92	1.63	1.34	1.15
13F630	0583	15,000	57	1.92	1.63	1.34	1.15
13F631	0584	20,000	50	1.92	1.63	1.34	1.15
13F632	0585	25,000	45	2.11	1.79	1.48	1.27
13F633	0586	30,000	36	2.11	1.79	1.48	1.27
13F634	0587	40,000	29	2.11	1.79	1.48	1.27
13F635	0588	50,000	26	2.29	1.95	1.60	1.37
13F636	0589	60,000	24	2.29	1.95	1.60	1.37
13F637	0590	80,000	21	2.54	2.16	1.78	1.52
13F638	0591	100,000	18	2.70	2.30	1.89	1.62

100 WATT—6½"x¾"

Stock No.	Type	Resis. Ohms	Max. Mils.	1-9	10-24	25-99	100-249
13F670	0956A	1	10,000	2.73	2.32	1.91	1.64
13F671	0956B	2	7,070	2.73	2.32	1.91	1.64
13F672	0956C	3	5,770	2.73	2.32	1.91	1.64
13F673	0956D	4	5,000	2.11	1.79	1.48	1.27
13F650	0956	5	4,470				
13F651	0957	10	3,160				
13F652	0958	25	2,000				
13F653	0959	50	1,410				
13F654	0960	100	1,000				
13F655	0960B	250	630				
13F656	0961	500	450				
13F657	0962	1,000	320				
13F658	0962B	1,500	260	2.17	1.84	1.52	1.30
13F659	0963	2,500	200	2.17	1.84	1.52	1.30
13F660	0964	5,000	140	2.17	1.84	1.52	1.30
13F661	0965	10,000	100	2.30	1.96	1.61	1.38
13F662	0966	15,000	81	2.44	2.07	1.71	1.46
13F663	0967	20,000	71	2.44	2.07	1.71	1.46
13F664	0968	25,000	63	2.70	2.30	1.89	1.62
13F665	0969	30,000	58	2.70	2.30	1.89	1.62
13F666	0970	40,000	50	2.70	2.30	1.89	1.62
13F667	0971	50,000	45	2.78	2.36	1.95	1.67
13F668	0972	75,000	32	3.02	2.57	2.11	1.81
13F669	0973	100,000	28	3.32	2.82	2.32	1.99

ADJUSTABLE LUGS

For Dividohms—Bakelite knob type

Stock No.	Type	Description	1-9	10-24	25-99
13F710	0359	For 25, 50 Watt	.31	.26	.22
13F711	1959	For 100 Watt	.31	.26	.22
13F712	2159	For 200 Watt	.40	.34	.28

For Dividohms—Screw driver type

Stock No.	Type	Description	1-9	10-24	25-99
13F713	1058	For 10 Watt	.14	.12	.10
13F714	0358	For 25, 50 Watt	.14	.12	.10
13F715	1958	For 100 Watt	.14	.12	.10
13F716	2158	For 200 Watt	.23	.20	.16

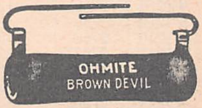
OHMITE ADJUSTABLE DIVIDOHMS (Continued)

200 WATT—10½"x1⅛"

Stock No.	Type	Resis. Ohms	Max. Mils.	1-9	10-24	25-99	100-249
13F676	1356A	1	14,100	4.32	3.67	3.02	2.59
13F677	1356B	2	10,000				
13F678	1356C	3	8,160				
13F679	1356D	4	7,070				
13F680	1356	5	6,320				
13F681	1357	10	4,470	3.34	2.84	2.34	2.00
13F682	1358	25	2,830				
13F683	1359	50	2,000				
13F684	1360	100	1,410				
13F685	1360B	250	890				
13F686	1361	500	630				
13F687	1362	1,000	450				
13F688	1362B	1,500	370	3.41	2.90	2.39	2.05
13F689	1363	2,500	280	3.41	2.90	2.39	2.05
13F690	1364	5,000	200	3.41	2.90	2.39	2.05
13F691	1365	10,000	140	3.59	3.05	2.51	2.15
13F692	1366	15,000	120	3.77	3.20	2.64	2.26
13F693	1367	20,000	100	3.77	3.20	2.64	2.26
13F694	1368	25,000	89	3.86	3.28	2.70	2.32
13F695	1369	30,000	82	3.86	3.28	2.70	2.32
13F696	1370	40,000	71	3.86	3.28	2.70	2.32
13F697	1371	50,000	63	3.96	3.37	2.77	2.38
13F698	1372	75,000	52	4.14	3.52	2.90	2.48
13F699	1373	100,000	45	4.34	3.69	3.04	2.60

"BROWN DEVIL" RESISTORS

High quality, compact wire-wound resistors for voltage-dropping, bias units, bleeders, etc. Extra-sturdy all-ceramic vitreous enameled. Protected against shock, vibration, heat and humidity. Have standard resistance tolerance of ±5%. 5-watt units have 1x5⁄16" cores; 10-watt units, 1¾x5⁄16" cores; 20-watt units, 2x7⁄16" cores. All have 1½" leads. Average shipping weight, 3 ounces.



13F150—5 WATT "BROWN DEVIL" RESISTORS

Type	Ohms	1-9	10-24	25-99	100-249
1500	1	.52	.44	.36	.31
1500B	1.5				
1501	2				
1502	3				
1503	4				
1504	5				
1505	7.5				
1506	10				
1507	12				
1508	15				
1509	20				
1510	25				
1511	30				
1512	35				
1513	40				
1514	50				
1515	75				
1516	100				
1517	125				
1518	150				
1519	200	.52	.44	.36	.31
1520	225				
1521	250				
1522	300				
1523	350				
1524	400				
1525	450				
1526	500				
1527	600				
1528	700				
1529	750				
1530	800				
1531	900				
1532	1,000				
1533	1,100	.55	.47	.39	.33
1534	1,200				
1535	1,250				
1536	1,500				
1537	1,750				
1538	2,000				
1539	2,250	.55	.47	.39	.33
1540	2,500				
1541	3,000				
1542	3,500				
1543	4,000				
1544	4,500				
1545	5,000				
1546	6,000	.58	.49	.41	.35
1547	7,000				
1548	7,500				
1549	8,000				
1550	9,000				
1551	10,000				
1552	12,500	.65	.55	.46	.39
1553	15,000				
1554	17,500				
1555	20,000				
1556	22,500	.68	.58	.48	.41
1557	25,000				

13F155—10 WATT "BROWN DEVIL" RESISTORS

Type	Ohms	1-9	10-24	25-99	100-249
1701	1	.57	.48	.40	.34
1704	1.5				
1705	2				
1706	3				
1707	4				
1708	5				
1709	7.5				
1710	10				
1711	12				
1712	15				
1713	20				
1714	25				
1715	30				
1716	35				
1717	40				
1718	50				
1719	75				
1720	100				
1721	125				
1722	150				
1723	200				
1724	225				
1725	250				
1726	300	.57	.48	.40	.34
1727	350				
1728	400				
1729	450				
1730	500				
1731	600				
1732	700				
1733	750				
1734	800				
1735	900				
1736	1,000				
1737	1,100	.61	.52	.43	.37
1738	1,200				
1739	1,250				
1740	1,500				
1741	1,750				
1742	2,000				
1743	2,250				
1744	2,500				
1745	3,000				
1746	3,500				
1747	4,000				
1748	4,500				
1749	5,000	.61	.52	.43	.37
1750	6,000	.70	.60	.49	.42
1751	7,000				
1752	7,500				
1753	8,000				
1754	8,500				
1754A	9,000				
1755	10,000				
1756	11,000	.79	.67	.55	.47
1757	12,000				
1758	12,500				
1759	13,500				
1761	15,000				
1762	16,000				
1763	17,500				
1764	18,000				
1765	20,000				
1766	22,500	.83	.71	.58	.50
1767	25,000				
1768	30,000				
1769	35,000				
1770	40,000				
1771	45,000	.93	.79	.65	.56
1772	50,000				

13F160—20 WATT "BROWN DEVIL" RESISTORS

Type	Ohms	1-9	10-24	25-99	100-249
1802A	1	.68	.58	.48	.41
1802B	2				
1802C	3				
1802D	4				
1803	5				
1804	10				
1805	25				
1806	50				
1807	75				
1808	100				
1809	150				
1810	200				
1811	250				
1812	300				
1813	350				
1814	400				
1815	500				
1816	650				
1817	700				
1818	750				
1819	800	.68	.58	.48	.41
1820A	900				
1821	1,000				
1822	1,200	.70	.60	.49	.42
1823	1,250				
1824	1,500				
1825	1,750				
1827	2,000				
1828	2,250				
1830	2,500				
1831	2,750				
1832	3,000				
1833	3,500				
1834	4,000				
1835	4,500				
1836	5,000				
1837	6,000	.83	.71	.58	.50
1838	7,000				
1839	7,500				
1840	8,000				
1840A	9,000	.83	.71	.58	.50
1841	10,000				
1842	12,500	.85	.72	.60	.51
1843	15,000				
1844	20,000				
1845	25,000	.99	.84	.69	.59
1846	30,000				
1847	35,000				
1848	40,000				
1849	45,000	1.15	.98	.81	.69
1850	50,000				
1851	55,000				
1852	60,000				
1853	65,000	1.37	1.16	.96	.82
1854	70,000				
1855	75,000				
1856	80,000				
1857	85,000	1.57	1.33	1.10	.94
1858	90,000				
1859	95,000				
1860	100,000				

OHMITE® FIXED RESISTORS

These lug type resistors are wire wound on high quality ceramic cores, protected and insulated by Ohmite vitreous enamel. Wire of the finest alloy and largest possible size is used for each resistance. The original uniform close spacing of the turns is maintained by the anchoring effect of the vitreous enamel. The wire is securely welded to the terminal lugs. Tolerance: 5%. Average Shipping Weight: 25-50 watts, 4.0 oz.; 100-200 watts, 1 lb.

10 WATT—1 ¾"x5/16"

Stock No.	Type	Resis. Ohms	Max. MA.	1-9	10-24	25-99	100-249
13F1200	3723	.51	4,430	.57	.48	.40	.34
13F1201	3730	1.0	3,160				
13F1202	3734	1.5	2,570				
13F1203	3738	2.2	2,130				
13F1204	3742	3.3	1,740				
13F1205	3746	4.7	1,460				
13F1206	3750	6.8	1,210				
13F1207	3754	10	1,000				
13F1208	3756	12	910				
13F1209	3758	15	820				
13F1210	3760	18	740				
13F1211	3762	22	670				
13F1212	3764	27	610				
13F1213	3766	33	550				
13F1214	3768	39	510				
13F1215	3770	47	460				
13F1216	3772	56	420				
13F1217	3774	68	380				
13F1218	3776	82	350				
13F1219	3778	100	320				
13F1220	3780	120	290				
13F1221	3782	150	260				
13F1222	3784	180	240				
13F1223	3786	220	210				
13F1224	3788	270	190				
13F1225	3790	330	170				
13F1226	3792	390	160				
13F1227	3794	470	150				
13F1228	3796	560	130				
13F1229	3798	680	120				
13F1230	3800	820	110				
13F1231	3802	1,000	100				
13F1232	3804	1,200	91	.61	.52	.43	.37
13F1233	3806	1,500	81				
13F1234	3808	1,800	75				
13F1235	3810	2,200	67				
13F1236	3812	2,700	62				
13F1237	3814	3,300	55				
13F1238	3816	3,900	51				
13F1239	3818	4,700	46				
13F1240	3820	5,600	42	.70	.60	.49	.42
13F1241	3822	6,800	38				
13F1242	3824	8,200	35				
13F1243	3826	10,000	32				
13F1244	3828	12,000	29	.79	.67	.55	.47
13F1245	3830	15,000	26				
13F1246	3832	18,000	23				
13F1247	3834	22,000	21	.83	.71	.58	.50
13F1248	3836	27,000	19				
13F1249	3838	33,000	17				
13F1250	3840	39,000	16				
13F1251	3842	47,000	15	.93	.79	.65	.56
13F1252	3843	51,000	14	.93	.79	.65	.56

25 WATT—2"x9/16"

Stock No.	Type	Resis. Ohms	Max. MA.	1-9	10-24	25-99	100-249
13F720	0200J	1	5,000	.72	.61	.50	.43
13F721	0200K	2	3,540				
13F722	0200L	3	2,880				
13F723	0200A	5	2,240				
13F724	0200B	10	1,580				
13F725	0200R	15	1,290				
13F726	0200C	25	1,000				
13F727	0200D	50	710				
13F728	0200E	75	580				
13F729	0200F	100	500				
13F730	0200G	150	410				
13F731	0200H	200	350				
13F732	0201	250	320				
13F733	0202	500	220				
13F734	0203	750	180				
13F735	0204	800	170				
13F736	0205	1,000	160				
13F737	0206	1,500	130	.75	.64	.53	.45
13F738	0207	2,000	120				
13F739	0208	2,500	100				
13F740	0209	3,000	91				
13F741	0210	3,500	84				
13F742	0211	4,000	79				
13F743	0212	5,000	70				
13F744	0213	6,000	64	.85	.72	.60	.51
13F745	0214	7,500	57				
13F746	0215	10,000	50				
13F747	0216	12,000	42	.90	.77	.63	.54
13F748	0217	15,000	36				
13F749	0218	20,000	31				
13F750	0219	25,000	28	1.04	.88	.73	.62
13F754	0220	30,000	26				
13F755	0221	35,000	24				
13F751	0222	40,000	22				
13F752	0224	50,000	20	1.21	1.03	.85	.73
13F756	0226	70,000	14	1.42	1.21	.99	.85
13F753	0229	100,000	10	1.64	1.39	1.15	.98

50 WATT—4"x9/16"

Stock No.	Type	Resis. Ohms	Max. MA.	1-9	10-24	25-99	100-249
13F760	0400A	5	3,160	1.11	.94	.78	.67
13F761	0400B	10	2,230				
13F762	0400C	25	1,410				
13F763	0400D	50	1,000				
13F764	0400E	75	820				
13F765	0400F	100	710				
13F766	0400G	150	580				
13F767	0400H	200	500				
13F768	0401	250	450				
13F769	0402	500	320				
13F770	0403	750	260				
13F789	0404	800	250				
13F771	0405	1,000	220				
13F772	0406	1,500	180	1.14	.97	.80	.68
13F773	0407	2,000	160				
13F774	0408	2,500	140				
13F775	0409	3,000	130				
13F776	0410	4,000	110				
13F777	0411	5,000	100				
13F778	0412	7,500	81	1.23	1.05	.86	.74
13F779	0413	8,000	79	1.23	1.05	.86	.74
13F780	0414	10,000	71	1.23	1.05	.86	.74
13F781	0415	12,000	64	1.35	1.15	.95	.81
13F782	0416	15,000	57	1.35	1.15	.95	.81
13F783	0417	20,000	50	1.35	1.15	.95	.81
13F784	0418	25,000	45	1.54	1.31	1.08	.92
13F785	0419	35,000	32	1.54	1.31	1.08	.92
13F786	0420	50,000	26	1.72	1.46	1.20	1.03
13F787	0421	75,000	21	1.97	1.67	1.38	1.18
13F788	0422	100,000	18	2.13	1.81	1.49	1.28

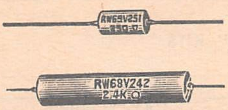
100 WATT—6 ½"x¾"

Stock No.	Type	Resis. Ohms	Max. MA.	1-9	10-24	25-99	100-249
13F800	0600A	5	4,470	1.54	1.31	1.08	.92
13F801	0600B	10	3,160				
13F802	0601	25	2,000				
13F803	0602	50	1,410				
13F804	0603	75	1,150				
13F805	0604	100	1,000				
13F806	0605	150	820				
13F807	0606	250	630				
13F808	0607	500	450				
13F809	0608	750	370				
13F810	0609	1,000	320				
13F811	0610	1,500	260	1.60	1.36	1.12	.96
13F812	0611	2,000	220				
13F813	0612	2,500	200				
13F814	0613	3,000	180				
13F815	0614	5,000	140				
13F816	0615	7,500	120	1.73	1.47	1.21	1.04
13F817	0616	10,000	100	1.73	1.47	1.21	1.04
13F818	0617	15,000	81	1.87	1.59	1.31	1.12
13F819	0618	20,000	71	1.87	1.59	1.31	1.12
13F820	0619	25,000	63	2.13	1.81	1.49	1.28
13F821	0620	30,000	58	2.13	1.81	1.49	1.28
13F822	0621	40,000	50	2.13	1.81	1.49	1.28
13F823	0622	50,000	45	2.21	1.88	1.55	1.33
13F825	0624	75,000	32	2.45	2.08	1.72	1.47
13F826	0625	100,000	28	2.75	2.34	1.93	1.65

200 WATT—10 ½"x1 ⅛"

Stock No.	Type	Resis. Ohms	Max. MA.	1-9	10-24	25-99	100-249
13F830	0900A	5	6,320	3.44	2.92	2.41	2.06
13F831	0900B	10	4,470	2.46	2.09	1.72	1.48
13F832	0901	25	2,830				
13F833	0902	50	2,000				
13F834	0903	75	1,640				
13F835	0904	100	1,410				
13F836	0905	150	1,150				
13F837	0906	250	890				
13F838	0907	500	630				
13F839	0908	750	520				
13F840	0909	1,000	450				
13F841	0910	1,500	370	2.53	2.15	1.77	1.52
13F842	0911	2,000	320				
13F843	0912	2,500	280				
13F844	0913	3,000	260				
13F845	0914	5,000	200				
13F846	0915	7,500	160	2.71	2.30	1.90	1.63
13F847	0916	10,000	140	2.71	2.30	1.90	1.63
13F848	0917	15,000	120	2.89	2.46	2.02	1.73
13F849	0918	20,000	100	2.89	2.46	2.02	1.73
13F850	0919	25,000	89	2.98	2.53	2.09	1.79
13F851	0920	30,000	82	2.98	2.53	2.09	1.79
13F852	0921	40,000	71	2.98	2.53	2.09	1.79
13F853	0922	50,000	63	3.08	2.62	2.16	1.85
13F854	0923	60,000	58	3.08	2.62	2.16	1.85
13F855	0924	75,000	52	3.26	2.77	2.28	1.96
13F856	0925	100,000	45	3.46	2.94	2.42	2.08

MILITARY AXIAL LEAD POWER RESISTORS



Exceed MIL-R-26C/2 requirements with resistance tolerances of ± 3%, temperature coefficient of ± 20 PPM/°C, 1000 volts AC dielectric test, molded silicone and ceramic. Leads 1½ in. long. Resistors utilize a single layer winding of high grade resistance alloy on a ceramic core. Axial type terminal leads and the resistance wire are both welded to metal end-caps which fit snugly over the core ends. A jacket of tough, resilient, moisture-resistant, silicone-ceramic material is molded around the resistor. The use of the molding technique provides the advantages of a uniformly thick, dense, smooth covering. The dielectric quality of the covering material permits these resistors to be used in direct contact with a metal part which may be at different potential.

Type RW69V—3 Watts

To replace RW59V and RW59G. OHMITE STYLE 881-3. Size: 0.230 in. Dia. by 0.542 in. L.

Stk. No.	Stock res. in ohms	NET EACH			
		1-9	10-24	25-99	100-249
13F310	1.0 to 910	.71	.60	.50	.43

Type RW67V—6.5 Watts

To replace RW57V and RW57G. OHMITE STYLE 881-6.5. Size: 0.323" dia. x 0.917" L.

Stk. No.	Stock res. in ohms	NET EACH			
		1-9	10-24	25-99	100-249
13F311	1.0 to 1000	.74	.63	.52	.44
	1100 to 3600	.79	.67	.55	.47

Type RW68V—11 Watts

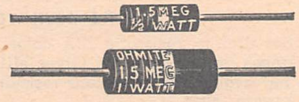
To replace RW58V, RW58G, RW55V, RW55G and RW56G. OHMITE STYLE 881-11. Size: 0.343 in. dia. by 1.823 in. L.

Stk. No.	Stock res. in ohms	1-9	10-24	25-99	100-249
13F312	1.0 to 2	1.14	.97	.80	.68
	3.0 to 1000	.82	.70	.57	.49
	1100 to 4700	.88	.75	.62	.53
	5100 to 8200	1.01	.86	.71	.61

Stock Resistances—Ohms

1.0	18	36	68	180	360	680	1300	2700	5100
2.0	20	39	75	200	390	750	1500	3000	5600
3.0	22	43	82	220	430	820	1600	3300	6200
5.1	24	47	91	240	470	910	1800	3600	6800
10	27	51	100	270	510	1000	2000	3900	7500
12	30	56	120	300	560	1100	2200	4300	8200
15	33	62	150	330	620	1200	2400	4700	

"LITTLE DEVIL" RESISTORS



Molded composition resistors meet all requirements for MIL-R-11C. Meets salt water and high humidity requirements. Unexcelled for low noise level. Dissipate heat rapidly—can be used at their full wattage ratings at 158° F. ambient temp. Resistors color-coded. 1½" leads. Wt., 2 oz. **Figures in large, bold type are ±10% EIA values. All values available in ±5% tolerance.**

Ohms							Megohms		
2.7	13	**68**	360	**1800**	9100	**47000**	0.24	1.1	5.1
3.0	**15**	75	**390**	2000	**10000**	51000	**0.27**	**1.2**	**5.6**
3.3	16	**82**	430	**2200**	11000	**56000**	0.30	1.3	6.2
3.6	**18**	91	**470**	2400	**12000**	62000	**0.33**	**1.5**	**6.8**
3.9	20	**100**	510	**2700**	13000	**68000**	0.36	1.6	7.5
4.3	**22**	110	**560**	3000	**15000**	75000	**0.39**	**1.8**	**8.2**
4.7	24	**120**	620	**3300**	16000	**82000**	0.43	2.0	9.1
5.1	**27**	130	**680**	3600	**18000**	91000	**0.47**	**2.2**	**10.0**
5.6	30	**150**	750	**3900**	20000	**100000**	0.51	2.4	11.0
6.2	**33**	160	**820**	4300	**22000**	110000	**0.56**	**2.7**	**12.0**
6.8	36	**180**	910	**4700**	24000	**120000**	0.62	3.0	13.0
7.5	**39**	200	**1000**	5100	**27000**	130000	**0.68**	**3.3**	**15.0**
8.2	43	**220**	1100	**5600**	30000	**150000**	0.75	3.6	16.0
9.1	**47**	240	**1200**	6200	**33000**	160000	**0.82**	**3.9**	**18.0**
10	51	**270**	1300	**6800**	36000	**180000**	0.91	4.3	20.0
11	**56**	300	**1500**	7500	**39000**	200000	**1.0**	**4.7**	**22.0**
12	62	**330**	1600	**8200**	43000	**220000**			

1/10 WATT UNITS

Voltage Rating: 150 volts r.m.s. Size: .140x.067".

Stock No.	MIL Type	Tol.	Resis. Range	1-4	5-49	50-99	100-249	250-499	500-999	1000-up
13F076	....	±10%	10 ohms to 1 Megohm	.24	.20	.16	.14	.122	.112	.105

¼ WATT UNITS

Voltage Rating: 250 volts r.m.s. Size: .25x.090".

Stock No.	MIL Type	Tol.	Resis. Range	1-4	5-49	50-99	100-249	250-499	500-999	1000-up
12F205	RC-07	± 5%	2.7 ohms to 24 ohms	.40	.34	.21	.13	.11	.102	.086
			27 ohms to 22 Meg.	.26	.22	.14	.095	.091	.073	.062
12F200	RC-07	±10%	2.7 ohms to 24 ohms	.20	.17	.105	.075	.075	.06	.05
			27 ohms to 22 Meg.	.13	.11	.07	.05	.05	.04	.034

½ WATT UNITS

Voltage Rating: 350 volts r.m.s. Size: .375x.1404".

Stock No.	MIL Type	Tol.	Resis. Range	1-4	5-49	50-99	100-249	250-499	500-999	1000-up
13F065	RC-20	± 5%	2.7 ohms to 22 Meg.	.24	.20	.12	.075	.073	.065	.056
13F050	RC-20	±10%	2.7 ohms to 22 Meg.	.12	.10	.06	.04	.04	.032	.03

1 WATT UNITS

Voltage Rating: 500 volts r.m.s. Size: .5625x.218".

Stock No.	MIL Type	Tol.	Resis. Range	1-4	5-49	50-99	100-249	250-499	500-999	1000-up
13F070	RC-32	± 5%	2.7 ohms to 22 Meg.	.36	.30	.18	.125	.123	.11	.09
13F055	RC-32	±10%	2.7 ohms to 22 Meg.	.18	.15	.09	.06	.055	.050	.045

2 WATT UNITS

Voltage Rating: 750 volts r.m.s. Size: .6875x.3125".

Stock No.	MIL Type	Tol.	Resis. Range	1-4	5-49	50-99	100-249	250-499	500-999	1000-up
13F075	RC-42	± 5%	10 ohms to 22 Meg.	.48	.40	.24	.19	.185	.175	.16
13F060	RC-42	±10%	10 ohms to 22 Meg.	.24	.20	.15	.11	.096	.088	.082

AXIAL-LEAD RESISTORS

OHMITE
10.000

Compact, axial-lead wire-wound resistor designed to stand up under high temps. All parts are thermally balanced to expand and contract as a unit. Terminals remain firmly anchored, cracking is eliminated, and moisture cannot enter resistor. Standard tolerance, ±5%. Rating based on UL permitted temp. rise of 540°F. (300°C.). Sizes: 3 watt: ¼"d. x 9/16" long, 5 watt: 11/32"d. x 1 1/16" long; 10 watt: 13/32"d. x 1 15/16" long.

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS
1.0	22	82	400	1200	5000	18000
1.5	25	100	470	1500	5600	20000
2.0	27	120	500	1800	6000	22000
3.0	30	150	560	2000	6800	25000
4.0	33	180	600	2200	7000	27000
5.0	39	200	680	2500	7500	30000
7.5	40	220	700	2700	8000	33000
10	47	250	750	3000	8200	39000
12	50	270	800	3300	9000	40000
15	56	300	820	3900	10000	47000
18	68	330	900	4000	12000	50000
20	75	390	1000	4700	15000	

Specify Stock No. and Resistance when ordering.

3 Watt Units

Stock No.	Value in Ohms	1-9	10-24	25-99	100-249
13F145	1 to 1,000	.59	.50	.41	.35
	1,200 to 5,000	.62	.53	.43	.37
	5,600 to 10,000	.66	.56	.46	.40

5 Watt Units

Stock No.	Value in Ohms	1-9	10-24	25-99	100-249
13F146	1 to 1000	.62	.53	.43	.37
	1,200 to 5,000	.66	.56	.46	.40
	5,600 to 10,000	.70	.60	.49	.42
	12,000 to 20,000	.78	.66	.55	.47
	22,000 and 25,000	.82	.70	.57	.49

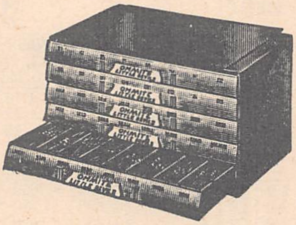
10 Watt Units

Stock No.	Value in Ohms	1-9	10-24	25-99	100-249
13F147	1 to 1,000	.68	.58	.48	.41
	1,200 to 5,000	.73	.62	.51	.44
	5,600 to 10,000	.84	.71	.59	.50
	12,000 to 20,000	.95	.81	.67	.57
	22,000 to 40,000	1.00	.85	.70	.60
	47,000 and 50,000	1.12	.95	.78	.67

RESISTORS, KITS, AND CALCULATORS

OHMITE KITS AND CALCULATORS

"LITTLE DEVIL" KITS



Most commonly used resistors with a plastic cabinet included at no extra cost. Cabinet has 5 drawers and 40 compartments. 9x4¾x5¼". Wt., 2¾ lbs.

Model CAB-4. ¼ watt ± 10% assortment with 150 resistors in values at right.
13F164. NET..................**19.50**

Model CAB-10. ½-watt ± 10% assortment with 150 resistors in values listed at right.
13F165. NET..................**18.00**

Model CAB-2. 1-watt ±10% assortment with 125 resistors in values at right.
13F166. NET..................**22.50**

Model CAB-3. 2-watt ±10% assortment with 125 resistors in values at right.
13F167. NET..................**30.00**

Quantities				Quantities			
CAB-4	**CAB-10**	**CAB-2 CAB-3**	**Ohms**	**CAB-4**	**CAB-10**	**CAB-2 CAB-3**	**Ohms**
....	1	1	10	3	3	1	33,000
....	1	1	15	3	5	5	39,000
....	1	1	27	5	10	10	47,000
5	1	1	47	3	3	1	68,000
5	5	1	100	2	1	1	82,000
1	1	1	150	10	10	10	.1 meg
3	3	1	270	3	5	5	.15 meg
1	1	1	330	3	3	1	.22 meg
3	3	1	470	3	10	10	.27 meg
1	1	1	680	3	3	1	.33 meg
10	5	3	1,000	5	10	10	.47 meg
5	1	1	1,500	1	1	1	.68 meg
10	1	1	2,200	10	10	10	1.0 meg
5	3	3	2,700	1	1	1	1.5 meg
10	10	5	4,700	1	1	1	2.2 meg
5	1	1	6,800	1	3	1	2.7 meg
10	10	10	10,000	1	1	1	3.9 meg
5	3	3	15,000	1	1	1	4.7 meg
5	5	5	22,000	1	1	1	6.8 meg
5	10	10	27,000	1	1	1	10.0 meg

OHM'S LAW CALCULATOR

Ohm's Law Calculator in vinyl. Slide-rule scales. Size: 9x3". Shipping weight, 3 oz.
51F992. NET..................**1.50**

As above, but on cardboard. Shipping weight, 2 oz.
51F993. NET..................**25c**

"LITTLE DEVIL" COLOR CODER

Set dial to resistor's EIA color code . . . values and tolerances appear directly. Gives MIL equivalents and chart showing availability of various resistances. Shpg. wt. 2 oz.
51F989. NET..................**10c**

CAPACITOR CALCULATOR

Provides quick answers on capacitance problems. With one setting of slide, capacitor calculator gives the solution to problems involving frequency, reactance, power factor, dissipation factor, equivalent series resistance, impedance and phase angle. Incorporates A, B, C, D, slide rule scales. Includes important capacitance formulae and comparison chart. 7"x2⅝". Durable, heavy, varnished cardboard. Shpg. wt. 2 oz.
51F995. NET..................**.24**

DALE RESISTORS

CARBON-FILM PRECISION RESISTORS

Type DC. Low cost miniature resistors designed for good protection from moisture, salt spray and other environmental conditions. Ideal for applications requiring high stability and accuracy combined with long reliable load life. Pure crystalline carbon film (no binder or filler). Excellent high frequency characteristics. Tolerance 1%. Full power to 40°C, derating to 0 at 120°C. Nominal Dimensions: DC—¼", Dia. 3⁄32", 13⁄32" Long, #22; DCS—½". Dia. 3⁄16", ½" Long, #20 lead ga.

Stock No.	Range Resist.	Type	Watt	1-24	25-99	100-249	250-499	500-up
13F148	10-300 ohms	DC-¼	¼	**.67**	**.34**	**.29**	**.24**	**.20**
	300 ohms -5K			**.68**	**.34**	**.29**	**.24**	**.20**
	5K-500K	(RN-10X)		**.64**	**.32**	**.27**	**.22**	**.19**
	500K-1 Meg			**.62**	**.31**	**.26**	**.22**	**.19**
13F149	10-300 ohms	DC-½	½	**.46**	**.23**	**.20**	**.16**	**.14**
	300 ohms-40K			**.58**	**.29**	**.25**	**.21**	**.18**
	40K-2 Megs			**.59**	**.29**	**.25**	**.21**	**.18**
	2 Megs-5 Megs			**.61**	**.31**	**.26**	**.22**	**.18**

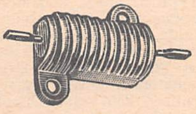
STANDARD RESISTANCE VALUES FOR DC1/4 AND DC1/2 RESISTORS

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Meg	Meg
10.0	22.1	48.7	107	237	523	1150	2550	5620	12.4K	27.4K	60.4K	133K	294K	649K	1.37	3.01
10.2	22.6	49.9	110	243	536	1180	2610	5760	12.7K	28.0K	61.9K	137K	301K	665K	1.40	3.09
10.5	23.2	51.1	113	249	549	1210	2670	5900	13.0K	28.7K	63.4K	140K	309K	681K	1.43	3.16
10.7	23.7	52.3	115	255	562	1240	2740	6040	13.3K	29.4K	64.9K	143K	316K	698K	1.47	3.24
11.0	24.3	53.6	118	261	576	1270	2800	6190	13.7K	30.1K	66.5K	147K	324K	715K	1.50	3.32
11.3	24.9	54.9	121	267	590	1300	2870	6340	14.0K	30.9K	68.1K	150K	332K	732K	1.54	3.40
11.5	25.5	56.2	124	274	604	1330	2940	6490	14.3K	31.6K	69.8K	154K	340K	750K	1.58	3.48
11.8	26.1	57.6	127	280	619	1370	3010	6650	14.7K	32.4K	71.5K	158K	348K	768K	1.62	3.57
12.1	26.7	59.0	130	287	634	1400	3090	6810	15.0K	33.2K	73.2K	162K	357K	787K	1.65	3.65
12.4	27.4	60.4	133	294	649	1430	3160	6980	15.4K	34.0K	75.0K	165K	365K	806K	1.69	3.74
12.7	28.0	61.9	137	301	665	1470	3240	7150	15.8K	34.8K	76.8K	169K	374K	825K	1.74	3.83
13.0	28.7	63.4	140	309	681	1500	3320	7320	16.2K	35.7K	78.7K	174K	383K	845K	1.78	3.92
13.3	29.4	64.9	143	316	698	1540	3400	7500	16.5K	36.5K	80.6K	178K	392K	866K	1.82	4.02
13.7	30.1	66.5	147	324	715	1580	3480	7680	16.9K	37.4K	82.5K	182K	402K	887K	1.87	4.12
14.0	30.9	68.1	150	332	732	1620	3570	7870	17.4K	38.3K	84.5K	187K	412K	909K	1.91	4.22
14.3	31.6	69.8	154	340	750	1650	3650	8060	17.8K	39.2K	86.6K	191K	422K	931K	1.96	4.32
14.7	32.4	71.5	158	348	768	1690	3740	8250	18.2K	40.2K	88.7K	196K	432K	953K	2.00	4.42
15.0	33.2	73.2	162	357	787	1740	3830	8450	18.7K	41.2K	90.9K	200K	442K	976K	2.05	4.53
15.4	34.0	75.0	165	365	806	1780	3920	8660	19.1K	42.2K	93.1K	205K	453K		2.10	4.64
15.8	34.8	76.8	169	374	825	1820	4020	8870	19.6K	43.2K	95.3K	210K	464K	**Meg**	2.15	4.75
16.2	35.7	78.7	174	383	845	1870	4120	9090	20.0K	44.2K	97.6K	215K	475K	1.00	2.21	4.87
16.5	36.5	80.6	178	392	866	1910	4220	9310	20.5K	45.3K	100K	221K	487K	1.02	2.26	4.99
16.9	37.4	82.5	182	402	887	1960	4320	9530	21.0K	46.4K	102K	226K	499K	1.05	2.32	5.11
17.4	38.3	84.5	187	412	909	2000	4420	9760	21.5K	47.5K	105K	232K	511K	1.07	2.37	
17.8	39.2	86.6	191	422	931	2050	4530	10.0K	22.1K	48.7K	107K	237K	523K	1.10	2.43	
18.2	40.2	88.7	196	432	953	2100	4640	10.2K	22.6K	49.9K	110K	243K	536K	1.13	2.49	
18.7	41.2	90.9	200	442	976	2150	4750	10.5K	23.2K	51.1K	113K	249K	549K	1.15	2.55	
19.1	42.2	93.1	205	453	1000	2210	4870	10.7K	23.7K	52.3K	115K	255K	562K	1.18	2.61	
19.6	43.2	95.3	210	464	1020	2260	4990	11.0K	24.3K	53.6K	118K	261K	576K	1.21	2.67	
20.0	44.2	97.6	215	475	1050	2320	5110	11.3K	24.9K	54.9K	121K	267K	590K	1.24	2.74	
20.5	45.3	100	221	487	1070	2370	5230	11.5K	25.5K	56.2K	124K	274K	604K	1.27	2.80	
21.0	46.4	102	226	499	1100	2430	5360	11.8K	26.1K	57.6K	127K	280K	619K	1.30	2.87	
21.5	47.5	105	232	511	1130	2490	5490	12.1K	26.7K	59.0K	130K	287K	634K	1.33	2.94	

PRECISION RESISTORS ±1% ACCURACY

TYPE RH AND RS

Extremely small precision resistors designed for miniaturized equipment. They are designed to give trouble free performance under all conditions. They have completely welded construction from terminal to terminal. The resistance wire is spot welded to stainless steel caps pressed on the refractory. The terminals are swedged and welded to caps assuring positive low resistance. Temperature coefficient 0.00002/°C. Wt., 2 oz.



RH

RS

Special values 1-24 pcs. 2X pr. $7.50 min.

Type RS. These should be specified when space is at a premium and when precision and power are needed. They are of the conventional type with pigtail mounting leads. They are completely protected and silicone sealed. Surpasses MIL-R-26C.

RS-1B ±1%—1 WATT

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499
13F137	1-1K	.98	.77	.73	.68	.63
	1,001-4K	1.08	.86	.81	.75	.69
	4,001-7.5K	1.84	1.65	1.61	1.56	1.53

RS-2B ±1%—3 WATT

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499
13F142	1.0 - 1K	.75	.59	.56	.52	.48
	1,001- 5K	.83	.66	.62	.57	.53
	5,001-10K	.86	.68	.64	.59	.56
	10,001-15K	.88	.70	.66	.62	.57
	15,001-20K	.92	.74	.69	.65	.59

RS-5 ±1%—5 WATT

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499
13F143	1.0 - 1K	.75	.59	.56	.52	.48
	1,001- 5K	.83	.66	.62	.57	.53
	5,001-10K	.86	.68	.64	.59	.56
	10,001-15K	.88	.70	.66	.62	.57
	15,001-20K	.92	.74	.69	.65	.59
	20,001-40K	.98	.78	.74	.68	.64
	40,001-55K	1.05	.85	.79	.74	.68
	55,001-60K	1.16	.92	.87	.81	.75

For ±0.5% tolerance add 100% to above prices.
For ±0.25% tolerance add 150% to above prices.

RS-10 ±1%—10 WATT

Meets precision power req. in advanced electronic circuits where space is at a premium. Silicon coating maintains stable performance under adverse environmental conditions.

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250 499
13F136	1- 1K	.75	.59	.56	.52	.48
	1,001- 5K	.83	.66	.62	.57	.53
	5,001- 10K	.86	.68	.64	.59	.56
	10,001- 15K	.88	.70	.66	.62	.57
	15,001- 20K	.92	.74	.69	.65	.59
	20,001- 40K	.98	.78	.74	.68	.64
	40,001- 55K	1.05	.85	.79	.74	.68
	55,001- 75K	1.16	.92	.87	.81	.75
	75,001-100K	1.28	1.02	.96	.89	.83
	100,001-125K	1.40	1.11	1.05	.98	.91
	125,001-150K	1.53	1.21	1.14	1.07	.99
	150,001-175K	1.67	1.33	1.25	1.17	1.09

For ±0.10% tolerance add 200% to above prices.
For ±0.05% tolerance add 300% to above prices.

Type RH. These resistors have a flat surface and are recommended for chassis mounting to assure proper heat dissipation. Silicone sealed in a die-cast, black anodized, radiator finned aluminum housing. 100% impervious to moisture and salt spray. Meets MIL-R-18546B. They have heavy duty leads.

RH-10 ±1%—10 WATT

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499
13F139	1.0 -1K	1.82	1.45	1.36	1.27	1.18
	1,001- 5K	1.91	1.53	1.44	1.34	1.24
	5,001-10K	2.08	1.66	1.56	1.45	1.35
	10,001-12K	2.24	1.79	1.68	1.56	1.45
	12,001-15K	2.44	1.95	1.83	1.71	1.58
	15,001-25K	2.62	2.39	2.18	1.95	1.74
	25,001-40K	2.90	2.65	2.41	2.17	1.93

RH-25 ±1%—25 WATT

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499
13F140	1.0 -1K	1.82	1.45	1.36	1.27	1.18
	1,001- 5K	1.91	1.53	1.44	1.34	1.24
	5,001-10K	2.08	1.66	1.56	1.45	1.35
	10,001-12K	2.24	1.79	1.68	1.56	1.45
	12,001-15K	2.44	1.95	1.83	1.71	1.58
	15,001-25K	2.62	2.39	2.18	1.95	1.74
	25.001-40K	2.90	2.65	2.41	2.17	1.93
	40,001-50K	3.19	2.91	2.64	2.42	2.11
	50.001-60K	3.48	3.17	2.87	2.54	2.26

RH-50 ±1%—50 WATT

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499
13F141	1.0 -5.9	3.23	2.59	2.42	2.26	2.10
	6.0 - 1K	2.23	1.78	1.67	1.56	1.45
	1,001- 5K	2.34	1.87	1.76	1.64	1.52
	5,001- 10K	2.53	2.02	1.89	1.77	1.64
	10,001- 20K	2.75	2.20	2.06	1.93	1.78
	20,001- 55K	3.00	2.40	2.24	2.10	1.95
	55,001- 75K	3.26	2.61	2.44	2.28	2.11
	75,001-100K	3.50	2.79	2.63	2.45	2.28
	100,001-125K	3.80	3.04	2.85	2.66	2.46
	125,001-150K	4.09	3.28	3.07	2.86	2.66
	150,001-175K	4.38	3.50	3.29	3.07	2.85

STANDARD RESISTANCE VALUES

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1	15	65	330	900	4.2K	14K	70K
1.5	16	70	350	950	4.3K	15K	75K
2	17.5	75	375	1K	4.5K	15.5K	80K
2.5	20	80	390	1.1K	4.7K	17.5K	90K
3	21	85	400	1.2K	5K	20K	100K
4	22.5	90	425	1.25K	5.3K	22.5K	110K
4.5	25	100	450	1.3K	6K	25K	120K
5	27.5	110	470	1.4K	6.2K	27.5K	130K
5.5	30	125	500	1.5K	6.3K	30K	140K
6	31	130	510	1.6K	6.8K	35K	150K
7	33	150	560	1.75K	7K	40K	160K
7.5	35	160	600	1.8K	7.5K	42K	170K
8	37	175	620	2K	8K	45K	175K
9	40	180	650	2.2K	8.2K	46K	
10	42	200	700	2.5K	9K	47K	
11	45	220	725	3K	10K	50K	
12	47	225	750	3.1K	11K	55K	
12.5	50	250	760	3.5K	12K	60K	
13	55	270	800	3.75K	12.5K	65K	
14	60	300	850	4K	13K	68K	

Minimum charge of $7.50 each for non-stock items (any thing other than 1%) and values not shown in chart.

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CORNING RESISTORS

CORNING RESISTORS

Types N60, N65, N70. Has glass body with tin oxide coating, temp. coef., ±0.015%°C over —15° to 150°C. Overload change less than 1% and noise level less than 0.1 uv/v. Non-inductive above 250 ohms. Standard values are same as standard decade values in applicable military specifications. Epoxy insulation, wattage: ⅛ @ 70°C., tolerance: 1%. Meets MIL-R-10509C.

Stk. No.	Type	Mil. Type	Res. Ohms	1-24	25-99	100-249	250-499	500-999	1000-4999
58F030	N60	RN60B	10-99	**1.30**	**.94**	**.70**	**.47**	**.40**	**.34**
			100-500	**.61**	**.44**	**.33**	**.22**	**.19**	**.16**
			501-133K	**.55**	**.41**	**.31**	**.20**	**.18**	**.15**
58F031	N65	RN65B	10-99	**1.14**	**.83**	**.62**	**.41**	**.36**	**.30**
			100-499K	**.50**	**.38**	**.28**	**.18**	**.16**	**.14**
58F032	N70	RN70B	100-1meg.	**.50**	**.38**	**.28**	**.18**	**.16**	**.14**

Type S. These resistors are made to meet the problems of small space and high ambient temperatures. Ideal for miniature power units, high-gain, low-signal amplifiers, computers, missiles, aircraft instruments. Meets MIL-R-11804C specifications. Full rating at 120°C ambient. Extremely low noise level. Less than 0.1% resistance change under one year of aging. ½ watt rating. Voltage rating, 350 volts. Dimensions: 19⁄32" long x 11⁄64" diameter. Terminal length, 1½". A temperature coefficient of ±0.03% per degree C. These high quality, accurate resistors provide excellent performance at temperatures up to 200°C. 1% Tol.

Stock No.	Type Mfr.	Type MIL	Resis. Ohms	1-49	50-99	100-249	250-499	500-999
12F000	S-20	RD60P	10-49	**1.05**	**.96**	**.74**	**.70**	**.52**
			50-500K	**.75**	**.69**	**.53**	**.50**	**.37**

MIL. STANDARD RESISTANCE VALUES FOR RESISTORS

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
10.0	21.0	44.2	93.1	196	412	866	1820	3830	8060	16.9K	35.7K	75.0K	158K	332K	698K
10.2	21.5	45.3	95.3	200	422	887	1870	3920	8250	17.4K	36.5K	76.8K	162K	340K	715K
10.5	22.1	46.4	97.6	205	432	909	1910	4020	8450	17.8K	37.4K	78.7K	165K	348K	732K
10.7	22.6	47.5	100	210	442	931	1960	4120	8660	18.2K	38.3K	80.6K	169K	357K	750K
11.0	23.2	48.7	102	215	453	953	2000	4220	8870	18.7K	39.2K	82.5K	174K	365K	768K
11.3	23.7	49.9	105	221	464	976	2050	4320	9090	19.1K	40.2K	84.5K	178K	374K	787K
11.5	24.3	51.1	107	226	475	1000	2100	4420	9310	19.6K	41.2K	86.6K	182K	383K	806K
11.8	24.9	52.3	110	232	487	1020	2150	4530	9530	20.0K	42.2K	88.7K	187K	392K	825K
12.1	25.5	53.6	113	237	499	1050	2210	4640	9760	20.5K	43.2K	90.9K	191K	402K	845K
12.4	26.1	54.9	115	243	511	1070	2260	4750	10.0K	21.0K	44.2K	93.1K	196K	412K	866K
12.7	26.7	56.2	118	249	523	1100	2320	4870	10.2K	21.5K	45.3K	95.3K	200K	422K	887K
13.0	27.4	57.6	121	255	536	1130	2370	4990	10.5K	22.1K	46.4K	97.6K	205K	432K	909K
13.3	28.0	59.0	124	261	549	1150	2430	5110	10.7K	22.6K	47.5K	100K	210K	442K	931K
13.7	28.7	60.4	127	267	562	1180	2490	5230	11.0K	23.2K	48.7K	102K	215K	453K	953K
14.0	29.4	61.9	130	274	576	1210	2550	5360	11.3K	23.7K	49.9K	105K	221K	464K	976K
14.3	30.1	63.4	133	280	590	1240	2610	5490	11.5K	24.3K	51.1K	107K	226K	475K	1 meg
14.7	30.9	64.9	137	287	604	1270	2670	5620	11.8K	24.9K	52.3K	110K	232K	487K	
15.0	31.6	66.5	140	294	619	1300	2740	5760	12.1K	25.5K	53.6K	113K	237K	499K	
15.4	32.4	68.1	143	301	634	1330	2800	5900	12.4K	26.1K	54.9K	115K	243K	511K	
15.8	33.2	69.8	147	309	649	1370	2870	6040	12.7K	26.7K	56.2K	118K	249K	523K	
16.2	34.0	71.5	150	316	665	1400	2940	6190	13.0K	27.4K	57.6K	121K	255K	536K	
16.5	34.8	73.2	154	324	681	1430	3010	6340	13.3K	28.0K	59.0K	124K	261K	549K	
16.9	35.7	75.0	158	332	698	1470	3090	6490	13.7K	28.7K	60.4K	127K	267K	562K	
17.4	36.5	76.8	162	340	715	1500	3160	6650	14.0K	29.4K	61.9K	130K	274K	576K	
17.8	37.4	78.7	165	348	732	1540	3240	6810	14.3K	30.1K	63.4K	133K	280K	590K	
18.2	38.3	80.6	169	357	750	1580	3320	6980	14.7K	30.9K	64.9K	137K	287K	604K	
18.7	39.2	82.5	174	365	768	1620	3400	7150	15.0K	31.6K	66.5K	140K	294K	619K	
19.1	40.2	84.5	178	374	787	1650	3480	7320	15.4K	32.4K	68.1K	143K	301K	634K	
19.6	41.2	86.6	182	383	806	1690	3570	7500	15.8K	33.2K	69.8K	147K	309K	649K	
20.0	42.2	88.7	187	392	825	1740	3650	7680	16.2K	34.0K	71.5K	150K	316K	665K	
20.5	43.2	90.9	191	402	845	1780	3740	7870	16.5K	34.8K	73.2K	154K	324K	681K	

SERIES-C FILM RESISTORS

MIL-R-11C and MIL-R-22684

C-42 2 Watt

C-32 1 Watt

C-20 ½ Watt

Large variety of small size metallic film resistors. Combine small size with excellent thermal, frequency, and stability characteristics. These low-power resistors are expressly designed for TV, Radio, and allied products, where high-quality, low cost applications are required. PYREX brand glass core insulator with a very thin film of metallic oxide. Load Life Resistance change of 1.5-3% after 1,000 hours of operation at 70°C. Operating Temperature from —55°C to 150°C. Moisture Resistance: Change in ohmic value 0.3-3%. Lead wire 1½"L. Tol.: C-20, C-32 ±5%; C-42 ± 5 and 10%.

C-42 ±5%—2 WATT (Dia. .318", Length 11/16±1/32")
MIL Type C42S

Stock No.	Type	Resis. Ohms	1-99	100-249	250-499	500-999
12F005	C-42	10 ohms to 1.5 meg.	**.30**	**.275**	**.225**	**.20**

C-42 ±10%—2 WATT (Dia. .318", Length 11/16±1/32")
MIL Type C42S

58F027	C-42	10 ohms to 1.5 meg.	**.20**	**.14**	**.12**	**.10**

C-20 ±5%—½ WATT (Dia. .138", Length .375±.041")
MIL Type RL20

Stock No.	Type	Resis. Ohms	1-99	100-249	250-499	500-999
58F025	C-20	51-150K	**.25**	**.20**	**.15**	**.12**

C-32 ±5%—1 WATT (Dia. .190", Length .562±.031")
MIl. Type RL32

Stock No.	Type	Resis. Ohms	1-99	100-249	250-499	500-999
58F026	C-32	51-470K	**.25**	**.20**	**.15**	**.12**

STANDARD RESISTANCE VALUES FOR C-FILM RESISTORS

10% tolerance values in bold face. All values available in 5% tolerance.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Megohms	
10	**27**	**68**	**180**	**470**	**1200**	**3300**	**8200**	**22000**	**56000**	**150000**	0.24	0.62
11	30	75	200	510	1300	3600	9100	24000	62000	160000	**0.27**	**0.68**
12	**33**	**82**	**220**	**560**	**1500**	**3900**	**10000**	**27000**	**68000**	**180000**	0.30	0.75
13	36	91	240	620	1600	4300	11000	30000	75000	200000	**0.33**	**0.82**
15	**39**	**100**	**270**	**680**	**1800**	**4700**	**12000**	**33000**	**82000**	**220000**	0.36	0.91
16	43	110	300	750	2000	5100	13000	36000	91000		**0.39**	**1.0**
18	**47**	**120**	**330**	**820**	**2200**	**5600**	**15000**	**39000**	**100000**		0.43	1.1
20	51	130	360	910	2400	6200	16000	43000	110000		**0.47**	**1.2**
22	**56**	**150**	**390**	**1000**	**2700**	**6800**	**18000**	**47000**	**120000**		0.51	1.3
24	62	160	430	1100	3000	7500	20000	51000	130000		**0.56**	**1.5**

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RESISTORS SPRAGUE

AXIAL-LEAD "KOOLOHM" RESISTORS

KOOLOHM
3W
KOOLOHM
5W

Small size, insulated-shell power wirewound resistors for heavy-duty industrial electronic equipment. The resistance element consists of "Ceron"—ceramic insulated resistance wire. Mechanically protected by the non-porous, moisture-resistant tubular ceramic outer shells. Leads welded to drawn metal end-cups which are securely attached to ceramic center core. Operating temperature —56°C up to "hottest-spot" 340°C. Meet MIL-R-26C spec. Tolerance: ±5%. Final "burn-in" test under full load. Leads #20 AWG, 1½" L.

Type 450E

3 Watt (Inductive) ¼"x9/16"

Stock No.	Range Ohms	1-24	25-49	50-99	100-249
18F2010	1-1000	.36	.25	.23	.22
	1200-2K	.38	.27	.25	.23
	2200-3K	.40	.28	.26	.24
	3300-4K	.41	.29	.27	.25
	4700-5K	.43	.30	.28	.26
	5600-6K	.44	.31	.29	.27
	6800	.46	.32	.30	.28
	7500-8K	.47	.33	.31	.28
	8200-9K	.49	.34	.32	.29
	10K	.49	.35	.33	.30

Type 452E

5 Watt (Inductive) ¼"x1"

Stock No.	Range Ohms	1-24	25-49	50-99	100-249
18F2015	1-1000	.37	.26	.24	.22
	1100-2K	.38	.27	.25	.23
	2200-3K	.39	.28	.26	.24
	3500-4K	.40	.28	.26	.24
	4500-5K	.41	.29	.27	.25
	6000	.42	.30	.28	.26
	7000	.44	.31	.29	.26
	7500-8K	.45	.31	.29	.27

Type 452E (Cont.)

Stock No.	Range Ohms	1-24	25-49	50-99	100-249
18F2015	9K	.46	.33	.30	.28
	10K	.48	.34	.31	.29
	12K	.51	.36	.33	.31
	14K	.54	.38	.35	.32
	15K	.56	.39	.36	.34
	18K	.62	.43	.40	.37
	20K	.67	.47	.44	.41

Type 453E

5 Watt (Non-inductive) ¼"x1"

Stock No.	Range Ohms	1-24	25-49	50-99	100-249
18F2020	1-1000	.55	.38	.36	.33
	1100-2K	.58	.41	.38	.35
	2200-3K	.62	.43	.40	.37
	3500-4K	.69	.48	.45	.41

Type 456E

10 Watt (Inductive) 15/32"x1-29/32"

Stock No.	Range Ohms	1-24	25-49	50-99	100-249
18F2025	1-1000	.44	.31	.29	.27
	1100-2K	.46	.33	.30	.28
	2200-3K	.47	.33	.31	.29
	3300-4K	.49	.34	.32	.29
	4500-5K	.50	.35	.33	.30
	6K	.51	.36	.34	.31
	7K	.53	.37	.35	.32
	7500-8K	.54	.38	.35	.32
	9K	.56	.39	.36	.34
	10K	.57	.40	.37	.34

Type 456E (Cont.)

Stock No.	Range Ohms	1-24	25-49	50-99	100-249
18F2025	11K	.59	.41	.38	.35
	12K	.60	.42	.39	.36
	14K	.62	.44	.41	.38
	15K	.64	.45	.42	.38
	16K	.65	.46	.43	.39
	18K	.68	.48	.44	.41
	20K	.71	.50	.46	.43
	22K	.73	.51	.48	.44
	25K	.78	.54	.51	.47
	30K	.84	.59	.55	.51
	35K	.91	.64	.59	.55
	40K	.98	.69	.64	.59
	45K	1.05	.73	.68	.63
	50K	1.12	.78	.73	.67
	60K	1.26	.88	.82	.76
	70K	1.41	.99	.92	.85

Type 457E

10 Watt (Non-induct.) 15/32"x1-29/32"

Stock No.	Range Ohms	1-24	25-49	50-99	100-249
18F2026	1-1000	.63	.45	.41	.38
	1100-2K	.67	.47	.44	.40
	2200-3K	.70	.49	.46	.42
	3300-4K	.73	.51	.48	.44
	4500-5K	.78	.55	.51	.47
	6K	.80	.56	.51	.48
	7K	.85	.60	.55	.51
	7500-8K	.90	.63	.59	.54
	9K	.97	.68	.63	.59
	10K	1.08	.76	.70	.65

NOTE: ABOVE TYPES OF SPRAGUE RESISTORS ARE AVAILABLE IN RESISTANCES CHECKED IN TABLE BELOW—PLEASE SPECIFY STOCK NUMBER AND RESISTANCE WHEN ORDERING.

Value	450E	452E	453E	456E	457E
1	X	X	X	X	X
1.5	X	X	X	X	X
2	X	X	X	X	X
3	X	X	X	X	X
4	X	X	X	X	X
5	X	X	X	X	X
7.5	X	X	X	X	X
10	X	X	X	X	X
12	X	X	X	X	X
15	X	X	X	X	X
18	X				
20	X	X	X	X	X
22	X				
25	X	X	X	X	X
27	X				
30	X	X	X	X	X
33	X				
35		X	X	X	X
39	X				
40	X	X	X	X	X
47	X				
50	X	X	X	X	X
56	X				
68	X				
75	X	X	X	X	X
82	X				
100	X	X	X	X	X
120	X	X	X	X	X
150	X	X	X	X	X
180	X				
200	X	X	X	X	X
220	X	X	X	X	X
250	X	X	X	X	X
270	X				
300	X	X	X	X	X
330	X				
350		X	X	X	X
390	X				
400	X	X	X	X	X
450		X	X		
470	X				
500	X	X	X	X	X
560	X				
600	X	X	X	X	X
680	X				
700	X	X	X	X	X
750		X	X		X
800	X	X	X	X	X
820	X				
900	X	X	X	X	X
1000	X	X	X	X	X
1100		X	X	X	X
1200	X	X	X	X	X
1400	X	X	X	X	X
1500	X	X	X	X	X
1800	X	X	X	X	X
2000	X	X	X	X	X
2200	X	X	X	X	X
2500	X	X	X	X	X
2700	X				
3000	X	X	X	X	X
3300	X			X	X
3500		X	X	X	X
3900	X			X	X
4000	X	X	X	X	X
4500		X		X	X
4700	X				
5000	X	X		X	X
5600	X				
6000	X	X		X	X
6800	X				
7000		X		X	X
7500	X	X		X	X
8000	X	X		X	X
8200	X				
9000	X	X		X	X
10K	X	X		X	X
11K				X	
12K		X		X	
14K		X		X	
15K		X		X	
16K				X	
18K		X		X	
20K		X		X	
22K				X	
25K				X	
30K				X	
35K				X	
40K				X	
45K				X	
50K				X	
60K				X	
70K				X	

TYPE RW55V—7 WATTS

Stock No.	Range Ohms	1-9	10-24	25-99	100-249
18F2000	1-2.8	.72	.62	.50	.44
	3.1-1K	.60	.52	.42	.36
	1100-5K	.64	.54	.45	.38
	5600-9K	.68	.58	.47	.41

TYPE RW56V—14 WATTS

KOOLOHM
14W

Stock No.	Range Ohms	1-9	10-24	25-99	100-249
18F2005	1-2.8	.79	.67	.55	.47
	3.1-1K	.66	.56	.46	.40
	1100-5K	.71	.59	.50	.43
	5600-10K	.81	.69	.57	.48
	11K-16K	.92	.78	.65	.55

Meets Military Specification MIL-R-26C.
SPECIFY STOCK NUMBER AND RESISTANCE WHEN ORDERING

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS
1.0	1.8	3.1	5.6	10	18	31	56	100	180	310	560	1000	1800	3100	5600	10000
1.1	2.0	3.5	6.3	11	20	35	63	110	200	350	630	1100	2000	3500	6300	11000
1.2	2.2	4.0	7.1	12	22	40	71	120	220	400	710	1200	2200	4000	7100	12000
1.4	2.5	4.5	8.0	14	25	45	80	140	250	450	800	1400	2500	4500	8000	14000
1.6	2.8	5.0	9.0	16	28	50	90	160	280	500	900	1600	2800	5000	9000	16000

GE POWER RESISTORS

FIXED TYPE

All resistors supplied with tinned, tab type terminals welded to resistance wire. Fixed 5, 10, and 20 Watt resistors have wire leads in addition for versatility. Uniformly wound on low-porosity cores, crazeless vitreous enamel coating—built to withstand wide temperature variation.

TYPE A5A—5 WATT—FIXED

Body is 1"L. by 5⁄16" o.d.

Stock No.	Range (Ohms)	1-24	25-99	100-249	250-499	500-999	1000-4999	5000 & up
13F900	5-1K	.46	.37	.32	.28	.25	.23	.22
	1.1-5K	.49	.39	.35	.29	.27	.24	.23
	6-10K	.51	.41	.36	.31	.28	.26	.25

TYPE A10B—10 WATT—FIXED

Body is 1¾" L. by 5⁄16" o.d.

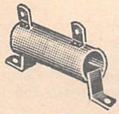
Stock No.	Range (Ohms)	1-24	25-99	100-249	250-499	500-999	1000-4999	5000 & up
13F901	1-1K	.49	.39	.35	.29	.27	.24	.23
	1.1-5K	.54	.43	.38	.32	.30	.27	.26
	6-10K	.59	.48	.42	.36	.33	.30	.29
	11-20K	.65	.52	.45	.39	.36	.32	.31
	22.5-25K	.70	.56	.49	.42	.39	.35	.34

TYPE A20AJ—20 WATT—FIXED

Body is 2" L. by 7⁄16" o.d.

Stock No.	Range (Ohms)	1-24	25-99	100-249	250-499	500-999	1000-4999	5000 & up
13F902	5-1K	.62	.50	.43	.37	.34	.31	.30
	1.2-5K	.65	.52	.45	.39	.36	.32	.31
	6-10K	.70	.56	.49	.42	.39	.35	.34
	12.5-20K	.78	.63	.55	.47	.43	.39	.38
	25-40K	.89	.71	.62	.53	.49	.45	.43
	45-50K	1.05	.84	.74	.63	.58	.53	.51

TYPE A25C—25 WATT—FIXED



Body is 2" L. by 9⁄16" o.d., 25⁄64" i.d. Mounting ctrs. 2⅝". 1 9⁄16" H. from terminals to mtg. tabs, tabs ¼" W. Mtg. hole, .159" dia.

Stock No.	Range (Ohms)	1-24	25-99	100-249	250-499	500-999	1000-4999	5000 & up
13F903	5-1K	.65	.52	.45	.39	.36	.32	.31
	1.5-5K	.68	.54	.47	.41	.37	.34	.33
	6-10K	.76	.61	.53	.45	.42	.38	.37
	12-20K	.78	.63	.55	.47	.43	.39	.38
	25K	.89	.71	.62	.53	.49	.45	.43

TYPE A50BB—50 WATT—FIXED

Body is 4" L. by 9⁄16" o.d., 25⁄64" i.d. Mounting ctrs. 4⅝". 1 9⁄16" H. from terminals to mtg. tabs, tabs ¼" W. Mtg. hole, .159" dia.

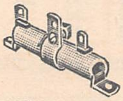
Stock No.	Range (Ohms)	1-24	25-99	100-249	250-499	500-999	1000-4999	5000 & up
13F904	5-1K	1.08	.86	.76	.65	.59	.54	.52
	1.5-5K	1.14	.91	.79	.68	.62	.57	.55
	6-10K	1.24	.99	.87	.75	.68	.62	.60
	12-20K	1.38	1.10	.96	.83	.76	.69	.68
	25-35K	1.52	1.21	1.06	.92	.83	.76	.73
	50K	1.70	1.36	1.19	1.02	.94	.85	.83

TYPE A100F—100 WATT—FIXED

Body is 6½" L. by ¾" o.d., 35⁄64" i.d. Mounting ctrs. 7¼". 2 3⁄16" H. from terminals to mounting tabs, tabs ⅜" W. Mtg. hole, .189" dia.

Stock No.	Range (Ohms)	1-24	25-99	100-249	250-499	500-999	1000-4999	5000 & up
13F905	5-1K	1.57	1.25	1.11	.94	.86	.78	.76
	1.2-5K	1.67	1.34	1.17	1.00	.92	.84	.81
	7.5-10K	1.79	1.43	1.25	1.07	.98	.89	.87
	15-20K	1.97	1.58	1.38	1.18	1.08	.99	.96
	25-40K	2.08	1.66	1.45	1.25	1.14	1.04	1.01
	50-60K	2.19	1.75	1.53	1.31	1.20	1.09	1.06
	75K	2.35	1.88	1.64	1.41	1.29	1.17	1.14

SLIDE TYPE



GE slider variable resistors are built to the same high specifications as fixed, above, have screwdriver-type slider terminal.

TYPE B10B—10 WATT—SLIDE-WIRE

Body is 1¾" L. by 5⁄16" o.d., 7⁄32" i.d. Mtg. ctrs., 2⅛". ⅞" H. from terminals to mtg. tabs, tabs ¼" W. Mtg. hole, .144" dia. 4-40x⅜" brass slider screw.

Stock No.	Range (Ohms)	1-24	25-99	100-249	250-499	500-999	1000-4999	5000 & up
13F906	5-1K	.95	.76	.66	.57	.52	.47	.46
	1.25-5K	1.00	.80	.70	.60	.55	.50	.49
	6-10K	1.08	.86	.76	.65	.59	.54	.52

TYPE B25C—25 WATT—SLIDE-WIRE

Body is 2" L. by 9⁄16" o.d., 25⁄64" i.d. Mtg. ctrs., 2⅝". 1 9⁄16" H. from terminals to mtg. tabs, tabs ¼" W. Mtg. hole, .159" dia. 4-40x⅜" brass slider screw.

Stock No.	Range (Ohms)	1-24	25-99	100-249	250-499	500-999	1000-4999	5000 & up
13F907	1-1K	1.22	.97	.85	.73	.67	.61	.59
	1.25-5K	1.24	.99	.87	.75	.68	.62	.60
	6-10K	1.30	1.04	.91	.78	.71	.65	.63
	12-20K	1.38	1.10	.96	.83	.76	.69	.68
	25K	1.49	1.19	1.04	.89	.82	.74	.72

TYPE B50BB—50 WATT—SLIDE-WIRE

Body is 4" L. by 9⁄16" o.d., 25⁄64" i.d. Mtg. ctrs., 4⅝". 1 9⁄16" H. from terminals to mtg. tabs, tabs ¼" W. Mtg. hole, .159" dia. 4-40x⅜" brass slider screw.

Stock No.	Range (Ohms)	1-24	25-99	100-249	250-499	500-999	1000-4999	5000 & up
13F908	5-1K	1.54	1.23	1.08	.92	.85	.77	.75
	1.25-5K	1.59	1.27	1.12	.96	.88	.80	.77
	6-10K	1.73	1.38	1.21	1.07	.95	.86	.84
	12-20K	1.84	1.47	1.29	1.10	1.01	.92	.89
	25-40K	2.03	1.62	1.42	1.22	1.11	1.01	.98
	50K	2.13	1.71	1.49	1.28	1.17	1.07	1.04

TYPE B100F—100 WATT—SLIDE-WIRE

Body is 6½" L. by ¾" o.d., 35⁄64" i.d. Mtg. ctrs., 7¼". 2 3⁄16" H. from terminals to mtg. tabs, tabs ⅜" W. Mtg. hole, .189" dia. 6-32x⅝" brass slider screw.

Stock No.	Range (Ohms)	1-24	25-99	100-249	250-499	500-999	1000-4999	5000 & up
13F909	5-1K	2.35	1.88	1.64	1.41	1.29	1.17	1.14
	1.5-5K	2.40	1.92	1.68	1.44	1.32	1.20	1.17
	10K	2.54	2.03	1.82	1.52	1.39	1.27	1.23
	15-20K	2.67	2.14	1.87	1.60	1.47	1.34	1.30
	25-40K	2.86	2.29	2.00	1.72	1.58	1.43	1.39
	50K	2.97	2.38	2.08	1.78	1.63	1.49	1.44
	75K	3.08	2.46	2.16	1.85	1.69	1.54	1.49
	100K	3.24	2.59	2.27	1.95	1.78	1.62	1.57

VARIABLE TYPE — NOTE: ABOVE TYPES OF GE POWER RESISTORS ARE AVAILABLE IN RESISTANCES CHECKED IN TABLE BELOW—PLEASE SPECIFY STOCK NUMBER AND RESISTANCE WHEN ORDERING.

Value	A5A	A10B	A20AJ	A25C	A50BB	A100F	B10B	B25C	B50BB	B100F
1	....	X	....	....	....	....	....	X	....	....
2	....	....	....	....	....	....	....	X	....	....
3	....	X	....	....	....	....	....	X	....	....
5	X	X	X	X	X	X	X	X	X	X
7.5	....	X	....	....	....	....	....	....	....	....
10	X	X	X	X	X	X	X	X	X	X
15	....	X	....	....	....	....	....	....	....	....
20	....	....	....	....	....	....	X	X	....	....
25	X	X	X	X	X	X	X	X	X	X
50	X	X	X	X	X	X	X	X	X	X
75	X	X	X	X	X	X	X	X	X	....
100	X	X	X	X	X	X	X	X	X	X
150	X	X	X	X	X	....	....	....	....	....
200	X	X	X	X	X	....	X	X	X	....
250	X	X	X	X	X	X	....	....	X	X
300	....	....	....	....	....	....	X	X	X	....
400	X	X	X	....	....	....	X	X	X	....
500	X	X	X	X	X	X	X	X	X	X
750	X	X	X	X	X	....	X	X	X	....
800	....	....	....	....	....	....	X	X	X	....
1K	X	X	X	X	X	X	X	X	X	X
1.25K	X	X	X	....	....	....	X	X	....	....
1.5K	X	X	X	X	X	X	X	X	X	X
2K	X	X	X	X	X	X	X	X	X	....
2.5K	X	X	X	X	X	X	X	X	X	X
3K	X	X	X	X	X	X	X	X	X	....
3.5K	....	....	....	X	....	....	X	X	....	....
4K	X	X	X	X	X	X	X	X	X	....
5K	X	X	X	X	X	X	X	X	X	X
6K	X	....	X	X	....	....	X	X	X	....
7K	....	....	....	....	....	....	X	X	X	....
7.5K	X	X	X	X	X	X	....	....	X	....
8K	....	....	....	....	....	....	X	X	X	....
9K	....	....	....	....	....	....	....	....	X	....
10K	X	X	X	X	X	X	X	X	X	X
12K	....	....	....	X	X	....	....	....	X	....
12.5K	....	X	X	....	....	....	....	....	....	....
15K	....	X	X	X	X	X	....	X	X	X
20K	....	X	....	X	X	X	....	X	X	X
25K	....	X	X	X	X	X	....	X	X	X
30K	....	....	....	....	....	X	....	....	X	X
35K	....	....	X	....	X	X	....	....	....	....
40K	....	....	X	....	....	X	....	....	X	X
50K	....	....	X	....	X	X	....	....	X	X
60K	....	....	....	....	....	X	....	....	....	....
75K	....	....	....	....	....	X	....	....	....	X
100K	....	....	....	....	....	....	....	....	....	X

FAMOUS MAKE RESISTORS

WESTON VAMISTORS

Meets MIL-R-93A, MIL-R-10509D

WESTON
VAMISTOR

THE WESTON VAMISTOR is a radical departure from conventional wire wound and film type resistors. Although it embraces the best features of each type and meets the most stringent requirements of MIL-R-93A covering accurate wire wound resistors, it uses no wire. The Vamistor is a new type of metal film precision resistor in which the resistance element, actually a ribbon of metal, is thermally fused to the inside wall of a Steatite tube having silver terminals fired to each end. Plated brass terminal caps with tinned copper wire leads are attached to the silvered ends of the tube and the entire unit molded in epoxy to protect the resistance element.

NEWARK CAN SUPPLY ALL WESTON VAMISTOR TYPES.

SPECIFICATIONS INCLUDE: Initial tolerance ±1%; rating—½ watt at 125°C.; 1 watt at 100°C.; 2 watts at 70° C.; 3 watts at 40°C. temperature coefficient—does not exceed ±50 ppm per degree C; resistance value—250 ohms to 2 megohms; voltage coefficient—maximum minus 1 part per million per volt; voltage rating—maximum continuous rated voltage is 500 volts. The Vamistor is substantially non-inductive. Only capacitative reactance shows up at the highest frequencies, due to a distributed capacitance of 0.9 micromicrofarads. Fully equivalent to virtually noise-free performance of wire-wound resistors.

Type 9852B. Equiv. MIL. Type RN70C (under MIL-R-10509D).

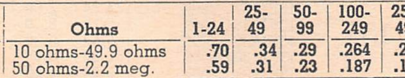
Stk. No.	Ohms	1-24	25-99	100-249	250-499	500-999	1000-4999
12F900	100 to 500K	1.80	1.30	1.03	.85	.76	.75
	501K to 1.5 meg.	1.98	1.39	1.12	.94	.85	.81
	1.6 meg. to 2.5 meg.	4.05	3.60	3.37	2.70	2.47	2.02
	2.5 meg. to 5 meg.	5.17	5.13	5.08	5.04	4.99	4.95

MIL Standard Resistance Values for Weston Vamistors

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Meg	Meg
100	191	365	698	1330	2550	4870	9310	17.8K	34.0K	64.9K	124K	237K	453K	866K	1.58	3.01
102	196	374	715	1370	2610	4990	9530	18.2K	34.8K	66.5K	127K	243K	464K	887K	1.62	3.09
105	200	383	732	1400	2670	5110	9760	18.7K	35.7K	68.1K	130K	249K	475K	909K	1.65	3.16
107	205	392	750	1430	2740	5230	10.0K	19.1K	36.5K	69.8K	133K	255K	487K	931K	1.69	3.24
110	210	402	768	1470	2800	5360	10.2K	19.6K	37.4K	71.5K	137K	261K	499K	953K	1.74	3.32
113	215	412	787	1500	2870	5490	10.5K	20.0K	38.3K	73.2K	140K	267K	511K	976K	1.78	3.40
115	221	422	806	1540	2940	5620	10.7K	20.5K	39.2K	75.0K	143K	274K	523K	**Meg**	1.82	3.48
118	226	432	825	1580	3010	5760	11.0K	21.0K	40.2K	76.8K	147K	280K	536K		1.87	3.57
121	232	442	845	1620	3090	5900	11.3K	21.5K	41.2K	78.7K	150K	287K	549K	1.00	1.91	3.65
124	237	453	866	1650	3160	6040	11.5K	22.1K	42.2K	80.6K	154K	294K	562K	1.02	1.96	3.74
127	243	464	887	1690	3240	6190	11.8K	22.6K	43.2K	82.5K	158K	301K	576K	1.05	2.00	3.83
130	249	475	909	1740	3320	6340	12.1K	23.2K	44.2K	84.5K	162K	309K	590K	1.07	2.05	3.92
133	255	487	931	1780	3400	6490	12.4K	23.7K	45.3K	86.6K	165K	316K	604K	1.10	2.10	4.02
137	261	499	953	1820	3480	6650	12.7K	24.3K	46.4K	88.7K	169K	324K	619K	1.13	2.15	4.12
140	267	511	976	1870	3570	6810	13.0K	24.9K	47.5K	90.9K	174K	332K	634K	1.15	2.21	4.22
143	274	523	1000	1910	3650	6980	13.3K	25.5K	48.7K	93.1K	178K	340K	649K	1.18	2.26	4.32
147	280	536	1020	1960	3740	7150	13.7K	26.1K	49.9K	95.3K	182K	348K	665K	1.21	2.32	4.42
150	287	549	1050	2000	3830	7320	14.0K	26.7K	51.1K	97.6K	187K	357K	681K	1.24	2.37	4.53
154	294	562	1070	2050	3920	7500	14.3K	27.4K	52.3K	100K	191K	365K	698K	1.27	2.43	4.64
158	301	576	1100	2100	4020	7680	14.7K	28.0K	53.6K	102K	196K	374K	715K	1.30	2.49	4.75
162	309	590	1130	2150	4120	7870	15.0K	28.7K	54.9K	105K	200K	383K	732K	1.33	2.55	4.87
165	316	604	1150	2210	4220	8060	15.4K	29.4K	56.2K	107K	205K	392K	750K	1.37	2.61	4.99
169	324	619	1180	2260	4320	8250	15.8K	30.1K	57.6K	110K	210K	402K	768K	1.40	2.67	
174	332	634	1210	2320	4420	8450	16.2K	30.9K	59.0K	113K	215K	412K	787K	1.43	2.74	
178	340	649	1240	2370	4530	8660	16.5K	31.6K	60.4K	115K	221K	422K	806K	1.47	2.80	
182	348	665	1270	2430	4640	8870	16.9K	32.4K	61.9K	118K	226K	432K	825K	1.50	2.87	
187	357	681	1300	2490	4750	9090	17.4K	33.2K	63.4K	121K	232K	442K	845K	1.54	2.94	

AEROVOX RESISTORS

Meets MIL-R-10509B



Carbon deposit type. For test equipment and lab. instruments. Sizes and resistance values listed below. **All ±1% tol. except (*) 2% tol.** Aeroglaze coating will meet all moisture in requirements of MIL-R-10509B. Shipping weight, 2 oz.

CPX½—½ WATT (.260"D x 23/32"L)

Stk. No.	Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F120	2.225 meg-5 meg	.91	.48	.35	.286	.220	.187

CPLX½—½ WATT (.260"D x 1"L.)

Stk. No.	Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F125	5.1 meg-7.5 meg	.99	.55	.44	.385	.319	.264

CPX-1—1 WATT (Equiv. Mil. Type RN25 .328"x15/16")

Stk. No.	Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F130	10 ohms-99.9 ohms	1.03	.52	.396	.341	.275	.231
13F130	100 ohms-5 meg	.89	.47	.341	.275	.209	.198
13F130	5.01 meg-10 meg	.98	.52	.396	.330	.264	.242
13F130	10.1 meg-15 meg	1.13	.59	.451	.374	.297	.275

CPX-2—2 WATT (Mil. Type RN30 .328"x2-1/16")

Stk. No.	Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F135	50 ohms-199 ohms	1.32	.70	.528	.440	.341	.308
13F135	200 ohms-10 meg	1.07	.56	.418	.352	.275	.253
13F135	10.1 meg-30 meg	1.14	.65	.506	.440	.363	.308
13F135	30.1 meg-50 meg	1.28	.75	.605	.528	.451	.374
13F135	*100 meg	1.78	.97	.726	.627	.528	.451

CPSX½—½ WATT
(Equiv. Mil. Type RN20X .203"D x 19/32"L.)

Stk. No.	Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F120	10 ohms-49.9 ohms	.70	.34	.29	.264	.220	.176
13F120	50 ohms-2.2 meg.	.59	.31	.23	.187	.143	.121

Specify stock number and resistance values.

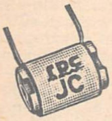
Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Megs.	Megs.	Megs.
10.0	33	70	200	560	1500	4450	8950	25000	68000	220000	600000	1.6	5.1	15.0
11.0	35	74.5	220	600	1600	4500	9000	27000	70000	225000	620000	1.8	5.5	16.0
12.0	36	75	225	620	1750	4700	9100	30000	75000	240000	650000	2.0	5.6	18.0
12.5	39	80	240	650	1800	5000	9950	33000	80000	250000	680000	2.2	6.0	20.0
13.0	40	82	250	680	2000	5100	10000	35000	82000	270000	700000	2.25	6.2	22.0
14.5	43	85	270	700	2200	5500	11000	36000	85000	300000	750000	2.4	6.5	25.0
15.0	44.5	89.5	300	750	2250	5600	12000	39000	90000	330000	800000	2.5	6.8	27.0
16.0	45	90	330	800	2400	5950	12500	40000	91000	350000	820000	2.7	7.0	30.0
17.5	47	91	350	820	2500	6000	13000	43000	100000	360000	850000	3.0	7.5	33.0
18.0	50	99.5	360	850	2700	6200	13500	45000	110000	390000	900000	3.3	8.0	36.0
20	51	100	390	900	2950	6500	15000	47000	120000	400000	910000	3.5	8.2	39.0
22.0	55	110	400	910	3000	6800	16000	50000	125000	430000	**Megs.**	3.6	8.5	43.0
22.5	56	120	430	1000	3300	7000	17500	51000	130000	450000	1.0	3.9	9.0	47.0
24.0	59.5	130	450	1100	3500	7450	18000	55000	150000	470000	1.1	4.0	9.1	50.0
25.0	60	150	470	1200	3600	7500	20000	56000	160000	500000	1.2	4.3	10.0	100.0*
27.0	62	160	500	1250	3900	8000	22000	60000	175000	510000	1.25	4.5	12.0	
29.5	65	175	510	1300	4000	8200	22500	62000	180000	550000	1.3	4.7	12.5	
30	68	180	550	1450	4300	8500	24000	65000	200000	560000	1.5	5.0	13.0	

MIL Values Available In All Aerovox Resistors on Special Order

RESISTORS

• *NEW* RPC PRECISION WIREWOUND RESISTORS

±1% Tolerance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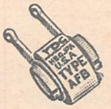
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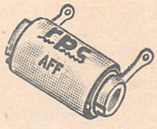
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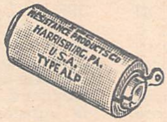

ALP

HIGH precision top quality wirewound resistors, in all standard sizes. Ideal for use where the tolerance specifications are restricted. Available in ⅓, ½, 1 and 2 watt sizes. Meets MIL-R-93A Spec., except Type JC.

RPC Type JC—Equivalent to IRC type WW10J ⅓ Watt— 13⁄16" dia. x 2 1⁄16" long

Stk. No.	Ohms	1-24	25-49	50-99
13F1350	.1	1.59	.95	.86
13F1351	.2	1.59	.95	.86
13F1352	.5	1.34	.80	.72
13F1353	1	1.25	.73	.65
13F1354	5			
13F1355	10			
13F1356	25			
13F1357	50			
13F1358	100			
13F1359	200			
13F1360	250			
13F1361	300			
13F1362	500			

Stk. No.	Ohms	1-24	25-49	50-99
13F1363	1000	1.25	.73	.65
13F1364	1500			
13F1365	2000			
13F1366	2500			
13F1367	3000	1.34	.80	.72
13F1368	3500			
13F1369	4000			
13F1370	5000			
13F1371	7500			
13F1372	10K			
13F1373	12.5K	1.59	.93	.83
13F1374	15K			
13F1375	20K			

Stk. No.	Ohms	1-24	25-49	50-99
13F1376	22.5K	1.92	1.13	1.01
13F1377	25K			
13F1378	30K			
13F1379	35K			
13F1380	40K			
13F1381	50K			
13F1382	60K	2.17	1.28	1.15
13F1383	75K	2.17	1.28	1.15
13F1384	100K	2.34	1.38	1.24
13F1385	125K	2.59	1.53	1.37
13F1386	150K	2.59	1.53	1.37
13F1387	175K	2.76	1.65	1.49
13F1388	200K	2.76	1.65	1.49

RPC Type AFB Equivalent to IRC type WW8J ½ Watt—Mil. Type RB15B—½" dia. x 15⁄32" long

Stk. No.	Ohms	1-24	25-49	50-99
13F1389	.1	1.42	.85	.77
13F1390	.2	1.42	.85	.77
13F1391	.5	1.25	.75	.68
13F1392	1.	1.25	.75	.68
13F1393	5.			
13F1394	10			
13F1395	25			
13F1396	50			
13F1397	100			
13F1398	200			
13F1399	250			
13F1400	300			
13F1401	500			
13F1402	1000			
13F1403	1500			
13F1404	2000			

Stk. No.	Ohms	1-24	25-49	50-99
13F1405	2500	1.17	.68	.61
13F1406	3000	1.25	.75	.68
13F1407	3500			
13F1408	4000			
13F1409	5000			
13F1410	7500			
13F1411	10K			
13F1412	12.5K	1.42	.85	.77
13F1413	15K			
13F1414	20K			
13F1415	22.5K	1.84	1.08	.97
13F1416	25K			
13F1417	30K			
13F1418	35K			
13F1419	40K			
13F1420	50K			

Stk. No.	Ohms	1-24	25-49	50-99
13F1421	60K	2.09	1.23	1.10
13F1422	75K	2.09	1.23	1.10
13F1423	100K	2.17	1.30	1.17
13F1424	125K	2.42	1.43	1.28
13F1425	150K	2.42	1.43	1.28
13F1426	175K	2.67	1.58	1.42
13F1427	200K	2.67	1.58	1.42
13F1428	225K	2.92	1.73	1.55
13F1429	250K	2.92	1.73	1.55
13F1430	300K	3.17	1.90	1.71
13F1431	400K	3.59	2.15	1.94
13F1432	500K	4.18	2.50	2.25
13F1433	600K	4.84	2.88	2.59
13F1434	700K	5.01	3.00	2.70

RPC Type AFF—Equivalent to IRC WW4J 1 Watt—Mil. Type RB17B—½" dia. x 1" long

Stk. No.	Ohms	1-24	25-49	50-99
13F1435	.1	1.72	1.03	.92
13F1436	.2	1.72	1.03	.92
13F1437	.5	1.47	.88	.79
13F1438	1	1.34	.80	.72
13F1439	5			
13F1440	10			
13F1441	25			
13F1442	50			
13F1443	100			
13F1444	200			
13F1445	250			
13F1446	300			
13F1447	500			
13F1448	1000			
13F1449	1500			
13F1450	2000			
13F1451	2500			
13F1452	3000	1.47	.88	.79

Stk. No.	Ohms	1-24	25-49	50-99
13F1453	3500	1.47	.88	.79
13F1454	4000			
13F1455	5000			
13F1456	7500			
13F1457	10K			
13F1458	12.5K	1.72	1.03	.92
13F1459	15K			
13F1460	20K			
13F1461	22.5K	2.05	1.23	1.10
13F1462	25K			
13F1463	30K			
13F1464	35K			
13F1465	40K			
13F1466	50K			
13F1467	60K	2.25	1.35	1.215
13F1468	75K	2.25	1.35	1.215
13F1469	100K	2.42	1.45	1.305
13F1470	125K	2.67	1.60	1.44

Stk. No.	Ohms	1-24	25-49	50-99
13F1471	150K	2.67	1.60	1.44
13F1472	175K	2.89	1.73	1.55
13F1473	200K	2.89	1.73	1.55
13F1474	225K	3.26	1.95	1.76
13F1475	250K	3.26	1.95	1.76
13F1476	300K	3.56	2.13	1.91
13F1477	400K	3.92	2.35	2.12
13F1478	500K	4.51	2.70	2.43
13F1479	600K	5.09	3.05	2.75
13F1480	700K	5.59	3.33	2.99
13F1481	800K	5.93	3.55	3.20
13F1482	900K	6.35	3.78	3.40
13F1483	1 Meg	6.76	4.05	3.65
13F1484	1.25 Meg	7.43	4.45	4.01
13F1485	1.5 Meg	8.18	4.90	4.41
13F1486	2 Meg	10.94	6.55	5.90

NRPC Type ALP—Equivalent to IRC WW2J 2 Watt—Mil. Type RB19B—13⁄16" dia. x 2 1⁄16" long

Stk. No.	Ohms	1-24	25-49	50-99
13F1487	.1	2.34	1.38	1.24
13F1488	.2	2.34	1.38	1.24
13F1489	.5	2.09	1.25	1.23
13F1490	1	1.92	1.13	1.01
13F1491	5			
13F1492	10			
13F1493	25			
13F1494	50			
13F1495	100			
13F1496	200			
13F1497	250			
13F1498	300			
13F1499	500			
13F1500	1000			
13F1501	1500			
13F1502	2000			
13F1503	2500			
13F1504	3000	2.09	1.25	1.13
13F1505	3500			
13F1506	4000			

Stk. No.	Ohms	1-24	25-49	50-99
13F1507	5000	2.09	1.25	1.13
13F1508	7500			
13F1509	10K			
13F1510	12.5K	2.42	1.45	1.31
13F1511	15K			
13F1512	20K			
13F1513	22.5K	2.92	1.75	1.58
13F1514	25K			
13F1515	30K			
13F1516	35K			
13F1517	40K			
13F1518	50K			
13F1519	60K	3.09	1.85	1.67
13F1520	75K	3.09	1.85	1.67
13F1521	100K	3.42	2.03	1.82
13F1522	125K	3.92	2.33	2.09
13F1523	150K	3.92	2.33	2.09
13F1524	175K	4.43	2.65	2.39
13F1525	200K	4.43	2.65	2.39
13F1526	225K	4.84	2.90	2.61

Stk. No.	Ohms	1-24	25-49	50-99
13F1527	250K	4.84	2.90	2.61
13F1528	300K	5.18	3.10	2.79
13F1529	400K	5.59	3.33	2.99
13F1530	500K	6.35	3.80	3.42
13F1531	600K	6.85	4.10	3.69
13F1532	700K	7.35	4.40	3.96
13F1533	800K	7.77	4.63	4.16
13F1534	900K	8.35	5.00	4.50
13F1535	1 Meg	9.02	5.38	4.84
13F1536	1.25 Meg	9.52	5.68	5.11
13F1537	1.5 Meg	10.86	6.48	5.83
13F1538	2 Meg	14.45	8.63	7.76
13F1539	2.5 Meg	18.54	11.10	9.99
13F1540	3 Meg	22.88	13.70	12.33
13F1541	3.5 Meg	27.47	16.45	14.81
13F1542	4 Meg	32.23	19.30	17.37
13F1543	4.5 Meg	37.41	22.38	20.14
13F1544	5 Meg	43.00	25.75	23.18

NEWARK —70,000 items in stock with 7 nationwide locations to serve the customer

THERMISTORS

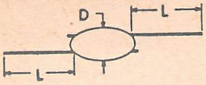


Fig. 1

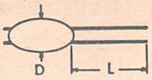


Fig. 2

GENERAL PURPOSE BEAD THERMISTORS

Max. oper. temp. 300°C for exceptional stability. Satisfactory operation at 500°C. Dissipation constant @ 25°C .7mw/°C. Time constant: 2 secs. Ro Tol. ±20% (Fig 1), except (*) ±15% (Fig 2). Bead dia. .043 in. Leads are .004" dia. platinum-iridium. Values are approximate unless specified.

Stk. No.	Type	Cold Res. Ro @25°C. (ohms)	Temp. Coeff. @ 25°C. (%/°C)	Ld. L.	1-10	11-24	25-99
29F100	31A2	1000	—3.9	¼	**2.50**	**2.00**	**1.75**
29F101	32A12	2000	—3.9	¼	**2.60**	**2.08**	**1.82**
29F102	35A1	5000	—4.0	¼	**2.50**	**2.00**	**1.75**
29F103	41A2	10000	—4.4	5⁄16	**2.50**	**2.00**	**1.75**
29F104	45A2	50000	—4.4	5⁄16	**2.50**	**2.00**	**1.75**
29F105	51A2	100000	—4.6	¼	**2.30**	**1.84**	**1.61**
29F107	55A2	500000	—5.0	¼	**2.80**	**2.24**	**1.96**
29F108	61A2	1 Meg.	—5.0	¼	**2.90**	**2.32**	**2.03**

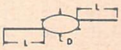


Fig. 3

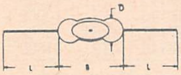


Fig. 4

BEAD THERMISTORS FOR HIGH FREQUENCY POWER MEASUREMENT

Subject to additional D.C. voltage and current tests. Ro Tol. 2000+20%@ 25°C. Disp. const. 0.1 MW/°C @ 25°C.

Stk. No.	Type	Fig.	Body Lth.	Dia.	Lead Lth.	1-10	11-24	25-99
29F109	32A5	3	....	.013	⅜	**3.00**	**2.40**	**2.10**
29F110	32A3	4	0.4	5⁄32	1⅞	**4.60**	**3.68**	**3.22**

THERMISTOR AND VARISTOR DESIGNER'S KITS

Each kit provides a wide range of resistance range and physical sizes. Technical characteristics and schematics to assist in the solution of circuitry design problems.

KW125 THERMISTOR WASHER KIT

Includes mounting kit A828 plus two each of the following: 11X1; 12X15; 14X4; 21W1; 22W6; 24W6. Shpg. wt. 1 lb.

29F111. NET.. **13.50**

KP50 THERMISTOR PROBE KIT

Contains one each of the following thermistors. 21A3; 31A11; 41A11; 51A11; 61A11; 71A11. Shpg. wt.. 1 lb.

29F112. NET.. **14.50**

KR75 THERMISTOR ROD KIT

Contains one each of the following thermistors: 33S1; 36S1; 41R1; 41S2; 43R1; 45R1; 51R2. Shpg. wt., 1 lb.

29F113. NET.. **8.75**

VECO EXPERIMENTER KIT

Veco Experimenter Kits are designed to acquaint personnel with the various types of thermistors and varistor applications and preparations of prototype models.

M-168. Contains: 2 each type thermistor, bead, disc and washer. 1 varistor washer.

29F114. NET.. **5.00**

M168A. 2 each type thermistor, probe and rod. 2 each washer (varistor) 1 set mounting hardware.

29F115. NET.. **10.00**

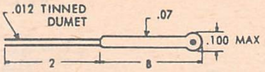


Fig. 7

GENERAL PURPOSE BEAD THERMISTOR IN GLASS PROBES AND GLASS RODS (Fig. 7)

Dissipation Constant @ 25°C (MW/°C)			Time Constant		
Still Air	**Still Oil**	**Still Water**	**Still Air**	**Still Oil**	**Still Water**
1	3.5	5	25	2	1

Stk. No.	Type	Cold Res. Ro @25°C (ohms)	Temp. Coef. @ 25°C %/°C	1-10	11-24	25-99
29F123	31A11	1000	—3.9	**2.30**	**1.84**	**1.61**
29F124	32A1	2000	—3.9	**2.40**	**1.92**	**1.68**
29F125	34A3†	3500	—3.9	**2.40**	**1.92**	**1.68**
29F126	41A11	10000	—4.4	**2.30**	**1.84**	**1.61**
29F127	41A1	10000	—4.4	**3.20**	**2.56**	**2.24**
29F128	43A3	30000	—4.4	**2.40**	**1.92**	**1.68**
29F129	51A1*	100000	—4.6	**2.60**	**2.08**	**1.82**
29F130	51A11	100000	—4.6	**2.30**	**1.84**	**1.61**
29F131	61A1	1 Meg.	—5.0	**3.70**	**2.96**	**2.59**

Ro ± 20% except (*) ± 15% and (†) ± 30%.

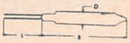


Fig. 8

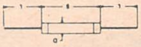


Fig. 9

BEAD THERMISTORS IN SPECIAL ENCLOSURES

Type 46A2. Ro @ 25°C: 60500 ohms ± 29%. Dissipation constant 0.3 MW/°C. Type 65A1. Ro @ 25°C: 5.4 Meg ± 32%. Dissipation constant .01 MW/°C. Type 46A2; 1¼" body length x ¼" dia. x 1⅜" min. lead length. Type 65A1; 1½" body length x .3" max. dia. x 1¼" min. lead length.

Stk. No.	Type	Fig.	Lead Dia. and Material	1-10	11-24	25-99
29F132	46A2	8	.016 Dumet (T)	**2.60**	**2.08**	**1.82**
29F133	65A1	9	.016 Dumet (T)	**6.00**	**4.80**	**4.20**

KD25 THERMISTOR DISC KIT

Includes one each of the following: 11E2; 12E2; 15D1; 18E2; 21E21; 22E6; 23D34; 25D4; 31E2; 32D12; 33D10; 35D6; 41D2. Shpg. wt., 1 lb.

29F134. NET.. **10.50**

KTBI THERMISTOR BEAD KIT

Kit includes tweezers for handling thermistors plus one each of the following thermistors: 32A48; 43A2; 51A30; 21A2; 31A2; 41A2; 51A2; 61A2. Shpg. wt. 1 lb.

29F135. NET.. **19.50**

KV100 VARISTOR KIT

Contains A818 mounting kit plus the following Varistors: 023L4; 023W1; 063L4; 114L1; 124W1; 143W1; 155L2; 165W2. Shpg. wt. 1 lb.

29F136. NET.. **14.50**

KV1001 VARISTOR DISC KIT

Includes one each of the following: 023L9; 063L9; 114L2; 124L1; 124L2; 134L1; 155L3; 175L1; 195L1. Shpg. wt., 1 lb.

29F137. NET.. **7.50**

PACKING GLAND

For use with Veco bead in glass probe units. Stainless steel, Neoprene sealant. Range: —40°F to +200°F.

29F116. Model A819. NET.. **4.00**

GENERAL PURPOSE DISC THERMISTORS

Temperature limits: 100°C painted or coated units, 150°C discs with leads. 200°C plain discs, washers, and rods. Lead material: tinned copper:—Discs 0.1 dia.=.013 (28AWG)x1"Lg. Discs 0.2 dia.=.020 (24AWG)x1¼"Lg. Discs 0.3 dia.=.020 (24AWG)x1½"Lg. Discs 0.4 dia.=.025 (22AWG)x3¾"Lg. The dissipation constants are for discs with leads. Nominal temperature coefficient @ 25°C: "E" type= —3.8%/°C, "D" type= —4.4%/°C. Resistance tolerance @ 25°C ± 10%.

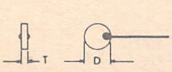


Fig. 5

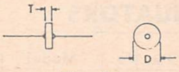


Fig. 6

DISCS WITH RADIAL LEADS (Fig. 5)

0.1 Disc Diameter

Stk. No.	Type	Cold Res. Ro @ 25°C	Disp Const. @ 25°C	T Dim.	1-10	11-24	25-99
29F117	25E2	500	3.5	.035	**.85**	**.68**	**.55**
29F118	35D2	5000	3.5	.048	**.85**	**.68**	**.55**
29F119	41D2	10000	3.5	.095	**.85**	**.68**	**.55**
0.2 Disc Diameter							
29F120	33D10	1000	7.0	.038	**.85**	**.68**	**.55**
0.3 Disc Diameter							
29F121	21E21	100	8.0	.063	**.85**	**.68**	**.55**
0.4 Disc Diameter							
29F122	21E2	100	10	.110	**.85**	**.68**	**.55**

DISCS WITH AXIAL LEADS (Fig. 6)

0.2 Disc Diameter

Stk. No.	Type	Cold Res. Ro @ 25°C	Disp Const. @ 25°C	T Dim.	1-10	11-24	25-99
29F138	31D4	1000	7.0	.038	**.85**	**.68**	**.55**

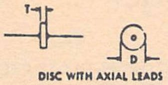
Continued on next page.

VECO V42 Data Book. An explanation of the function of various types of thermistors and varistors with voltage current characteristics and resistance temperature tables.

29F149. Postpaid in USA.. **1.00**

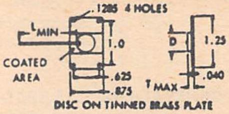
THERMISTORS, POTENTIOMETERS & ATTENUATORS

VECO THERMISTORS (Continued)



DISC WITH AXIAL LEADS

Fig. 10



DISC ON TINNED BRASS PLATE

Fig. 11

TYPICAL MOUNTED, COATED AND CLOSE TOLERANCE DISCS

Stock No.	Type	Ro @ 25°C	Dissip. Const.	Time Const.	T	1-10	11-24	25-99
29F139	31D7*	1200±10%	7	19	5/16"	1.05	.84	.68
29F140	27D1‡	725± 5%	150	80	.040	2.90	2.32	1.89
29F141	28D1‡	760± 5%	150	80	.040	2.90	2.32	1.89

*Cycleweld Coated (Fig. 10). ‡Disc on Plate (Fig. 11).

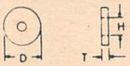


Fig. 12

GENERAL PURPOSE WASHER THERMISTORS

Stock No.	Type	Ro @ 25°C	Dissip. Const.	Size	1-10	11-24	25-99
29F142	14X2	38±10%	420	.77Dx.281Hx.13T	1.30	1.04	.85

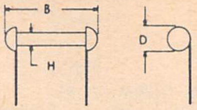


Fig. 13

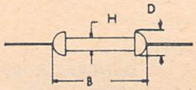


Fig. 14

GENERAL PURPOSE ROD THERMISTORS

ROD WITH RADIAL LEADS (Fig. 13)

B, 5/8"; D, 1/8"

Stock No.	Type	Ro @ 25°C	Dissip. Const.	Time Constant	1-10	11-24	25-99
29F143	41S2	10000	3	16	1.35	1.08	.95

ROD WITH AXIAL LEADS (Fig. 14)

All-Dia. 7/32"

Stock No.	Type	Ro@ 25°C	Dissip. Const.	Time Constant	B	1-10	11-24	25-99
29F144	33S1	3150	6	50	29/32"	1.10	.88	.77
29F145	41R1	10000	5	35	19/32"	1.10	.88	.77
29F146	41S1	10000	8	75	1 23/32"	1.10	.88	.77
29F147	42R1	15000	5	40	19/32"	1.10	.88	.77
29F148	43R1	31500	5.5	50	15/32"	1.10	.88	.77

YSI PRECISION THERMISTORS

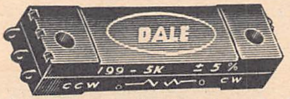
Precise thermistors useful in wide variety of temperature control. Both resistance and Beta slope are held to tolerance. Used in tube protection, as transducer for measurement and control of temperature or built into components to provide temperature compensation as in millivoltmeters. Negligible size permits application for temperature compensation of small components such as transistors. Wide range of resistances allows great latitude in choice of or matching other circuit elements. Physical Size: .09" in diameter, .05" thick, #32 solid tinned copper leads 3" long. Thermistors are EPOXY encapsulated for ruggedness and long life. Each Thermistor is supplied with temperature resistance table for ranges —80°C to +150°C and including power dissipation and capability.

Rated at 25°C.

Stock No.	Type	Ohms	Res. Tol.	Temp. Tol.	1-9	10-29	30-99
29F200	44001	100	1.0	.3	4.90	4.15	3.50
29F201	44002	300	1.0	.3			
29F202	44003	1K	1.0	.3			
29F203	44005	3K	.8	.2			

Stock No.	Mfrs. Type	Ohms	Res. Tol.	Temp. Tol.	1-9	10-29	30-99
29F204	44006	10K	.8	.2	4.90	4.15	3.50
29F205	44008	30K	.8	.2			
29F206	44011	100K	.8	.2			

DALE TRIMMER - WIRE WOUND - MINIATURE POTENTIOMETER



Miniature precision trimmer potentiometer, ideal for computers and laboratory type applications. Rated at 0.8 watt up to 70°C. ambient temp. ±5% tolerance. Operating temperature range: —55°C. to +135°C. Insulation resistance: 1000 Megohms min. at 500 VDC. Shaft torque—7 inch/ounces max. No mechanical stops. Self-locking adjustment. Size: .220x.312x1.250 inches. Wt., 2.25 grams.

TYPE 199 (Replaces A10W) SOLDER LUG

Stk. No.	Type	Ohms	1-24	25-49	50-99	100-249	250-499
13F450	199-10	10	5.50	4.95	4.71	4.40	4.18
13F451	199-20	20					
13F452	199-50	50					
13F453	199-100	100					
13F454	199-200	200					
13F455	199-500	500					
13F456	199-1K	1000					
13F457	199-2K	2000					
13F459	199-5K	5000					
13F460	199-10K	10000					

TYPE 199—Continued

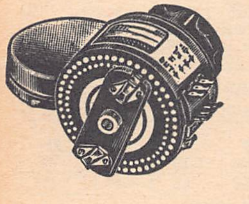
Stk. No.	Type	Ohms	1-24	25-49	50-99	100-249	250-499
13F492	199-15K	15000	7.00	6.30	5.98	5.60	5.32
13F461	199-20K	20000	7.00	6.30	5.98	5.60	5.32
13F462	199-25K	25000	7.00	6.30	5.98	5.60	5.32
13F478	199-100K	100000	9.00	8.10	7.70	7.20	6.84

TYPE 193 (Replaces A10WL)

28 AWG Stranded Vinyl leads attached to 99 Style solder lug.

Stk. No.	Type	Ohms	1-24	25-49	50-99	100-249	250-499
13F380	193-10	10	5.50	4.95	4.71	4.40	4.18
13F381	193-20	20					
13F382	193-50	50					
13F386	193-1K	1000					
13F387	193-2K	2000					
13F388	193-5K	5000					
13F389	193-10K	10000					
13F391	193-20K	20000	7.00	6.30	5.98	5.60	5.32
13F392	193-25K	25000	7.00	6.30	5.98	5.60	5.32

DAVEN ATTENUATORS



- **Tamper Proof**
- **Knee-Action Rotor Blade**
- **2-Piece Brass Case**
- **Air Insulated**
- **"Lock-Tite" Dust Cover**
- **High Resistance to Leakage**

The "knee action" rotor blades makes these attenuators tamper proof. Each rotor blade is individually supported to give positive contact in operation under all types of conditions. Reduced clearance space required for removal of cover in rear of unit. "Lock-Tite" dust cover is held by positive, bayonet-type lock. Low loss molded terminal board of high resistance to leakage. *Tapered on last steps to cut off (infinity). Less knobs and dials. †Have detents. ‡Have cue position.

Stk. No.	Model	Imped.	Steps	DB per Step	1-4	5-9
10F102	LA350EF	*250/500	20	2	26.56	21.27
10F103	LA350G	*600/600	20	2	26.56	21.27
10F104	LA350AH	*30/60	20	2	26.56	21.27
†10F105	CP350Y	500,000	20	2	17.42	13.75
10F106	CP354T	*100,000	20	2	16.75	13.08
10F107	CP354X	*250,000	20	2	16.75	13.08
†10F108	CP350T	100,000	20	2	17.42	13.75
‡10F109	LAQ350EF	*250/500	20	2	28.06	22.77
10F112	T330-G	*600/600	30	1.5	43.53	35.23
10F113	T330-K	*150/150	30	1.5	43.53	35.23
10F114	T321-G	*600/600	20	2	36.31	29.25
10F115	T255-G	*600/600	20	2	48.25	36.54

DAVENOIL

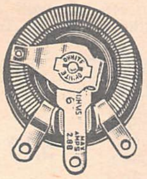
10F116. 1/2 oz. container with applicator. **NET**.......................... **25c**

DIAL AND KNOBS

Dial and knobs for above attenuators. Specify attenuator type when ordering.
NET per set **2.25**

WIRE WOUND POWER RHEOSTATS

ALL RHEOSTATS SUPPLIED LESS KNOBS. SEE PAGE 000 FOR KNOB LISTING



All porcelain vitreous enameled construction. Wire wound over porcelain core. Shunt pigtail carries current to slip-ring. High strength ceramic hub insulates the shaft and bushing. Tempered steel contact arm. Models H, J, K, L, N, when made without additional features are listed by UL and are marked Series A. Aver. shpg. wt.: Models H, J, K: 8 oz.—Models L, N, R: 3 lbs.

MODEL H—25 WATT

Mounts on panels up to 1/4'' by 3/8''—32 Bushing with No 5050 Non-turn washer. Shaft Dia. 1/4". 300° rotation. Dia. 1 9/16".

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F000	0140	1	4.63	3.94	3.10	2.55
11F001	0141	2				
11F002	0142	3				
11F003	0143	6				
11F004	0144	8				
11F005	0145	10				
11F006	0146	15	4.11	3.49	2.75	2.26
11F007	0147	25				
11F008	0148	35				
11F009	0149	50				
11F010	0150	75				
11F011	0151	100				
11F012	0152	125				
11F013	0153	175				
11F014	0154	250				
11F015	0155	350				
11F016	0156	500				
11F017	0157	750				
11F018	0158	1,000	4.63	3.94	3.10	2.55
11F019	0159	1,500	4.63	3.94	3.10	2.55
11F020	0160	2,500	4.63	3.94	3.10	2.55
11F021	0161	3,500	4.90	4.17	3.28	2.70
11F022	0162	5,000	4.90	4.17	3.28	2.70
11F026	4200	7,500	5.06	4.30	3.39	2.78
11F027	4201	10,000	5.06	4.30	3.39	2.78
11F028	4202	15,000	5.50	4.68	3.69	3.03
11F029	4203	20,000	6.16	5.24	4.13	3.39
11F030	4204	25,000	6.82	5.80	4.57	3.75

MODEL J—50 WATT

Mounts on panels up to 1/4'' by 3/8''—32 Bushing with No. 5050 Non-turn washer. Shaft Dia. 1/4". 300° rotation. Dia. 2 5/16".

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F040	0308	0.5	5.15	4.38	3.45	2.83
11F041	0309	1				
11F042	0310	2				
11F043	0311	4				
11F044	0312	6				
11F045	0313	8	4.63	3.94	3.10	2.55
11F046	0314	12				
11F047	0315	16				
11F048	0316	22				
11F049	0317	35				
11F050	0318	50	4.63	3.94	3.10	2.55
11F051	0319	80				
11F052	0320	125				
11F053	0321	150				
11F054	0322	225				
11F055	0323	300				
11F056	0324	500				
11F057	0325	800	4.90	4.17	3.28	2.70
11F058	0326	1,000				
11F059	0327	1,600				
11F060	0328	2,500				
11F061	0329	3,500	5.15	4.38	3.45	2.83
11F062	0330	5,000				
11F063	0331	8,000				
11F064	0332	10,000				
11F066	4210	15,000	5.83	4.96	3.91	3.21
11F067	4211	20,000	6.60	5.61	4.42	3.63
11F068	4212	25,000	7.26	6.17	4.86	3.99
11F069	4213	30,000	8.03	6.83	5.38	4.42
11F070	4214	40,000	9.35	7.95	6.26	5.14
11F071	4215	50,000	10.23	8.70	6.85	5.63

MODEL K—100 WATT

Mounts on panels up to 1/4'' by 3/8''—32 Bushing with No. 5050 Non-turn washer. Shaft Diameter 1/4''. 300° rotation. Rheostat diameter 3 1/8''.

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F076	0440	0.5	7.72	6.56	5.17	4.25
11F077	0441	1				
11F078	0442	2				
11F079	0443	3				
11F080	0444	5				
11F081	0445	7.5				
11F082	0446	10				
11F083	0447	16	7.21	6.13	4.83	3.97
11F084	0448	25				
11F085	0449	50				
11F086	0450	75				
11F087	0451	100				
11F088	0452	200				
11F089	0453	300				
11F090	0454	400				
11F091	0455	500				
11F092	0456	750				
11F093	0457	1,000	7.72	6.56	5.17	4.25
11F094	0458	1,500				
11F095	0459	2,000				
11F096	0460	2,500				
11F097	0461	5,000	8.24	7.00	5.52	4.53
11F098	0462	7,500	8.76	7.45	5.87	4.82
11F099	0463	10,000	9.26	7.87	6.20	5.09

MODEL L—150 WATT

Mounts on panels up to 1/4'' by 3/8''—32 Bushing or by two No. 10-32x3/4'' long flat head screws which are supplied. Shaft diameter 1/4" 300° Rotation. Rheostat diameter 4".

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F100	0524	0.5	9.78	8.31	6.55	5.38
11F101	0525	1				
11F102	0528	5				
11F103	0530	10				
11F104	0532	25	9.26	7.87	6.20	5.09
11F105	0534	50				
11F106	0536	100				
11F107	0537	150				
11F108	0538	200				
11F109	0539	250				
11F110	0541	500				
11F111	0543	1,250	9.78	8.31	6.55	5.38
11F112	0545	2,250	10.30	8.76	6.90	5.67
11F113	0547	4,500	10.81	9.19	7.24	5.95
11F114	0549	10,000	12.35	10.50	8.27	6.79

MODEL N—300 WATT

Mounts on panels up to 1 1/4'', by two 1/4''—20 by 1 1/2'' flat head screws supplied. Shaft dia. 3/8''. 315° Rotation. Dia. 6''.

Stk. No.	Type	Ohms	Net	No.	Type	Ohms	Net
11F130	0650	1		11F141	0661	100	
11F131	0651	2		11F142	0662	150	
11F132	0652	3	1-2	11F143	0663	200	1-2
11F133	0653	4	15.29	11F144	0664	300	15.29
11F134	0654	5		11F145	0665	400	
11F135	0655	7.5		11F146	0666	700	
11F136	0656	10	3-4	11F147	0667	900	3-4
11F137	0657	15		11F148	0668	1,200	
11F138	0658	25	13.00	11F149	0669	1,500	13.00
11F139	0659	50		11F150	0670	1,750	
11F140	0660	75		11F151	0671	2,500	

MODEL R—500 WATT

Mounts on panels up to 1 1/4'' by two 1/4''-20 by 1 1/2'' flat head screws supplied. Shaft diameter 3/8''. 325° Rotation. Dia. 8''.

Stk. No.	Type	Ohms	Net	No.	Type	Ohms	Net
11F170	0849	1.0		11F182	0872	50	
11F171	0850	1.5		11F183	0861	80	
11F172	0851	2	1-2	11F184	0862	125	1-2
11F173	0852	2.5		11F185	0863	175	
11F174	0853	3	22.09	11F186	0864	250	22.09
11F175	0854	4		11F187	0865	325	
11F176	0855	5		11F188	0866	500	
11F177	0856	8	3-4	11F189	0867	750	3-4
11F178	0857	12.5	18.78	11F190	0868	1,000	18.78
11F179	0858	16		11F191	0869	1,500	
11F180	0859	25		11F192	0870	2,000	
11F181	0860	40		11F193	0871	2,500	

SEE NEXT PAGE FOR ADD'L RHEOSTATS AND RHEOSTAT ACCESSORIES

NEWARK HAS 7 GIANT WAREHOUSES TO SERVE YOU

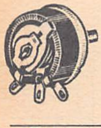
OHMITE RHEOSTATS & POTENTIOMETERS

TYPE AS ½ WATT MINIATURE POTENTIOMETERS

The smallest, high-quality, molded, composition potentiometer available. Only ½" in diameter. Locking type shaft is standard. Max. continuous voltage across entire element—350v. ½-watt at 70°C. Derate linearly to zero at 120°C ambient. Can be used throughout range from −55°C to +120°C. Type AS potentiometers meet the 200 hour salt spray test of QQ-M-151 and exceed the performance requirements of MIL-R-94A as well as E.I.A. requirements. Shipping weight, 4 ounces. Tol. ±10%. * ±20%.

Stk.No.	Type	MIL-R-94	Ohms	NET
9F950	AS3601	RV6LAYSA101A	100	5.10
9F951	AS3602	RV6LAYSA251A	250	
9F952	AS3603	RV6LAYSA501A	500	
9F953	AS3604	RV6LAYSA102A	1,000	
9F954	AS3605	RV6LAYSA252A	2,500	
9F963	AS3606	RV6LAYSA502A	5,000	
9F964	AS3607	RV6LAYSA103A	10,000	
9F955	AS3608	RV6LAYSA253A	25,000	
9F956	AS3609	RV6LAYSA503A	50,000	5.10
9F957	AS3610	RV6LAYSA104A	.1 meg	
9F958	AS3611	RV6LAYSA254A	.25 meg	
9F959	AS3612	RV6LAYSA504A	.50 meg	
9F960	AS3613	RV6LAYSA105B	1 meg.*	
9F949	AS3684	RV6LAYSA205B	2.0 meg*	
9F961	AS3614	RV6LAYSA255B	2.5 meg*	
9F962	AS3615	RV6LAYSA505B	5.0 meg*	

12½ WATT MINIATURE RHEOSTATS



Model E. 12½-Watt Miniature Rheostat. (Rating on metal panel.) Smaller than many 1- or 2-watt potentiometers. Rugged, all-ceramic and metal construction. Use where 12½ watts dissipation is needed but space is limited. Operates at a maximum hot spot temperature rise of 300°C at an ambient of 40°C, but also useful for operating at high military ambients, derated linearly to zero at 340°C. Specifications: Overall diam.: ⅞". Shaft diam.: ⅛". Resistance range: Up to 5000 ohms with vitreous enamel; higher values available with Ohmicone inorganic coating. Resistance tol.: ±10%. Standard. Mounting: for panels up to ⅛", ¼"-32 threaded Bushing. with non-turn projection. Rotation: 300° ±5°. Shpg. wt., 1½ oz. † Silicone-ceramic coating.

Stock No.	Type	Ohms	Max. Amps.	1-4	5-9	10-24	25-49
9F965	0101	1	3.53	4.63	3.94	3.10	2.55
9F966	0102	2	2.50				
9F967	0103	3	2.04				
9F968	0104	6	1.44				
9F969	0105	8	1.25				
9F970	0106	10	1.12				
9F971	0107	15	.91	4.11	3.49	2.75	2.26
9F972	0108	25	.71				
9F973	0109	35	.60				
9F974	0110	50	.50				
9F975	0111	75	.41				
9F976	0112	100	.35				
9F977	0113	125	.32				
9F978	0114	175	.27				
9F979	0115	250	.22	4.11	3.49	2.75	2.26
9F980	0116	350	.19				
9F981	0117	500	.16				
9F982	0118	750	.13				
9F983	0119	1,000	.11	4.63	3.94	3.10	2.55
9F984	0120	1,500	.091				
9F985	0121	2,500	.071				
9F986	0122	3,500	.060	4.90	4.17	3.28	2.70
9F987	0123	5,000	.050	4.90	4.17	3.28	2.70
9F988	4190†	7,500	.041	5.06	4.30	3.39	2.78
9F989	4191†	10,000	.035	5.06	4.30	3.39	2.78
9F990	4192†	12,500	.028	5.50	4.68	3.69	3.03
9F991	4193†	15,000	.023	5.50	4.68	3.69	3.03

DIAL PLATES

11F199. Type 5000. For types H, J, K, L. 2 oz. **NET**......**29c**
11F198. Type 5001. For types N and R. 4 oz. **NET**......**70c**
11F194. Type 5007. For type E. **NET**......**29c**

KNOBS FOR OHMITE RHEOSTATS

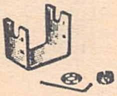
Type 5105 is a handwheel without pointer knob. The others are finger grip.

Stk. No.	Type	For Use With	1-2	3-4
11F023	5105	Models N & R	1.16	.96

Stk. No.	Type	For Use With Models	1-4	5-9	10-24	25-Up
11F024	5150	H, J, K & L	.29	.25	.19	.16
11F025	5151	E	.29	.25	.19	.16

TANDEM COUPLING KITS

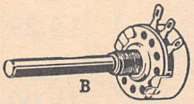
Type 6532 designed for models H and J; will couple models K or L in rear position. Max. panel thickness for standard Ohmite knobs, 5/32". Frame 25/32" long and 1¼" wide. Type 6533 designed for models K and L; will couple models H or J in rear position. Max. panel thickness ⅛". Frame 29/16" long and 1¼" wide.

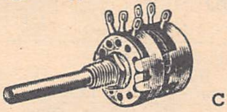


No.	Type	1-4	5-9	10-24	25-49
11F196	6532	2.01	1.71	1.35	1.11
11F197	6533	2.51	2.13	1.68	1.38
11F195	6591*	2.01	1.71	1.35	1.11

*For Model E Rheostats.

A


B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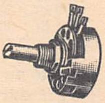

D

OHMITE TYPE AB POTENTIOMETERS

Molded composition 2-watt variable resistance control units. Type CMU (Fig. D) has ⅞"Lx¼" slotted shaft. Type CLU (Fig. A.) has locking nut, ⅝" L. x ¼" slotted shaft mounts in ⅜" hole on panels up to ⅛". Types CA, CB and CU (Fig. B.), and Type CCU dual (Fig. C.) have 2" long, ¼" shafts. Mount in ⅜" hole on panels up to ¼". All are ±10% tolerance, except * ±20%. Types CU, CCU, CMU, and CLU are linear taper; Type CA clockwise log; Type CB counterclockwise log; size ⅝x15/32" diameter. Type CCU size, 117/64x15/32" dia. With lock washer and mtg. nut. Shpg. wt., 4 oz.

STOCK POTENTIOMETERS—MIL UNITS ARE STAMPED WITH MIL AND COMMERCIAL DESIGNATIONS

Type CLU—Fig. A

No.	Type	⅝" Shaft MIL-R-94	Ohms	NET
9F916	CLU5001	RV4LAYSA500A	50	2.55
9F917	CLU1011	RV4LAYSA101A	100	
9F558	CLU1511	RV4LAYSA151A	150	
9F918	CLU2511	RV4LAYSA251A	250	
9F559	CLU3511	RV4LAYSA351A	350	
9F919	CLU5011	RV4LAYSA501A	500	2.55
9F560	CLU7511	RV4LAYSA751A	750	
9F920	CLU1021	RV4LAYSA102A	1,000	
9F561	CLU1521	RV4LAYSA152A	1,500	
9F921	CLU2521	RV4LAYSA252A	2,500	
9F562	CLU3521	RV4LAYSA352A	3,500	2.55
9F922	CLU5021	RV4LAYSA502A	5,000	
9F563	CLU7521	RV4LAYSA752A	7,500	
9F923	CLU1031	RV4LAYSA103A	10,000	
9F564	CLU1531	RV4LAYSA153A	15,000	
9F924	CLU2531	RV4LAYSA253A	25,000	2.55
9F565	CLU3531	RV4LAYSA353A	35,000	
9F925	CLU5031	RV4LAYSA503A	50,000	
9F566	CLU7531	RV4LAYSA753A	75,000	
9F926	CLU1041	RV4LAYSA104A	100,000	
9F567	CLU1541	RV4LAYSA154A	150,000	2.55
9F927	CLU2541	RV4LAYSA254A	250,000	
9F568	CLU3541	RV4LAYSA354A	350,000	
9F928	CLU5041	RV4LAYSA504A	500,000	
9F569	CLU7542	RV4LAYSA754B	750,000*	
9F929	CLU1052	RV4LAYSA105B	1 meg*	2.55
9F570	CLU1552	RV4LAYSA155B	1.5 meg*	
9F948	CLU2052	RV4LAYSA205B	2.0 meg*	
9F930	CLU2552	RV4LAYSA255B	2.5 meg*	
9F571	CLU3552	RV4LAYSA355B	3.5 meg*	
9F931	CLU5052	RV4LAYSA505B	5 meg*	

TYPE AB POTENTIOMETERS CONTINUED ON NEXT PAGE

OHMITE TYPE AB CONT.

Type CMU—Fig. D

Stk. No.	Type	⅞" Shaft MIL-R-94	Ohms	NET
9F1350	CMU5001	RV4NAYSD500A	50	1.95
9F1351	CMU1011	RV4NAYSD101A	100	
9F1352	CMU1511	RV4NAYSD151A	150	
9F1353	CMU2511	RV4NAYSD251A	250	
9F1354	CMU3511	RV4NAYSD351A	350	
9F1355	CMU5011	RV4NAYSD501A	500	1.95
9F1356	CMU7511	RV4NAYSD751A	750	
9F1357	CMU1021	RV4NAYSD102A	1,000	
9F1358	CMU1521	RV4NAYSD152A	1,500	
9F1359	CMU2521	RV4NAYSD252A	2,500	
9F1360	CMU3521	RV4NAYSD352A	3,500	1.95
9F1361	CMU5021	RV4NAYSD502A	5,000	
9F1362	CMU7521	RV4NAYSD752A	7,500	
9F1363	CMU1031	RV4NAYSD103A	10,000	
9F1364	CMU1531	RV4NAYSD153A	15,000	
9F1365	CMU2531	RV4NAYSD253A	25,000	

Stk. No.	Type	⅞" Shaft MIL-R-94	Ohms	NET
9F1366	CMU3531	RV4NAYSD353A	35,000	1.95
9F1367	CMU5031	RV4NAYSD503A	50,000	
9F1368	CMU7531	RV4NAYSD753A	75,000	
9F1369	CMU1041	RV4NAYSD104A	.1 meg.	
9F1370	CMU1541	RV4NAYSD154A	.15 meg.	
9F1371	CMU2541	RV4NAYSD254A	.25 meg.	1.95
9F1372	CMU3541	RV4NAYSD354A	.35 meg.	
9F1373	CMU5041	RV4NAYSD504A	.5 meg.	
9F1374	CMU7542	RV4NAYSD754B	.75 meg.*	
9F1375	CMU1052	RV4NAYSD105B	1.0 meg.*	
9F1376	CMU1552	RV4NAYSD155B	1.5 meg.*	1.95
9F1377	CMU2052	RV4NAYSD205B	2.0 meg.*	
9F1378	CMU2552	RV4NAYSD255B	2.5 meg.*	
9F1379	CMU3552	RV4NAYSD355B	3.5 meg.*	
9F1380	CMU5052	RV4NAYSD505B	5.0 meg.*	

Type CU—Fig. B

Stk. No.	Type	Ohms	NET
9F900	CU5001	50	1.95
9F901	CU1011	100	
9F572	CU1511	150	
9F902	CU2511	250	
9F573	CU3511	350	
9F903	CU5011	500	1.95
9F574	CU7511	750	
9F904	CU1021	1,000	
9F575	CU1521	1,500	
9F905	CU2521	2,500	
9F576	CU3521	3,500	1.95
9F906	CU5021	5,000	
9F577	CU7521	7,500	
9F907	CU1031	10,000	
9F578	CU1531	15.000	
9F908	CU2531	25,000	
9F579	CU3531	35,000	

Stk. No.	Type	Ohms	NET
9F909	CU5031	50,000	1.95
9F580	CU7531	75,000	
9F910	CU1041	100,000	
9F581	CU1541	150,000	1.95
9F911	CU2541	250,000	
9F582	CU3541	350,000	
9F912	CU5041	500,000	
9F583	CU7542	750,000*	
9F913	CU1052	1 meg*	1.95
9F584	CU1552	1.5 meg*	
9F586	CU2052	2.0 meg.	
9F914	CU2552	2.5 meg*	
9F585	CU3552	3.5 meg*	
9F915	CU5052	5 meg*	

Type CS-1 Switch. SPST. For above controls except CCU.
9F940. NET.. **66c**

Types CA and CB—Fig. B

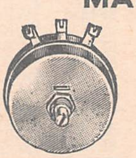
Stk. No.	Type	Ohms	NET
9F932	CB1031	10,000	2.25
9F933	CB2531	25,000	
9F934	CB5031	50,000	
9F935	CA1041	100,000	
9F936	CA2541	250,000	
9F937	CA5041	500,000	
9F938	CA1052	1 meg*	
9F939	CA2552	2.5 meg*	

Type CCU Dual—Fig. C

Stk. No.	Type	Ohms	NET
9F941	CCU1031	10,000	5.85
9F945	CCU2531	25,000	
9F942	CCU5031	50,000	
9F946	CCU1041	100,000	
9F943	CCU2541	250,000	
9F947	CCU5041	500,000	
9F944	CCU1052	1.0 meg*	

MALLORY

TYPE "E" WIRE WOUND POTENTIOMETERS



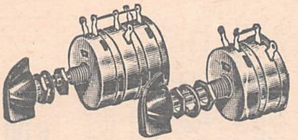
Rugged construction. Rated to dissipate 7 watts for industrial and laboratory production control and research applications. Contact arm grounded to shaft. 295° effective electrical rotation, 2 5/16" dia. x ⅞" deep. ¼" shaft slotted 3/64" by 1/16" deep, mtg. hole, ⅜". Hexagon nut furnished. Use dial plate 399 listed below. 6 oz.

No.	Type	Ohms	Amps.	Net	No.	Type	Ohms	Amps.	Net
9F360	E5MP	5,000	.042	2.76	9F365	E75MP	75,000	.011	3.24
9F361	E10MP	10,000	.03	2.94	9F362	E20MP	20,000	.021	3.00
9F363	E25MP	25,000	.019	3.09	9F366	E100MP	100.000	.0095	3.30
9F364	E50MP	50,000	.0135	3.15	9F368	E150MP	150,000	.0078	3.36

22F192. Type 399. Dial plate for "E" controls. 2 oz. **NET**........**.21**

MALLORY T AND L PADS

Control level of low impedance audio circuits DC rating, 4 w.; 15 watts audio. With bar knob, dial-plate, washer and nuts. "L" pad 1⅝" dia. x 1 11/16" deep. "T" pad, 1⅛" deep. Wt., 7 oz.



"T" PADS				"L" PADS			
Stk. No.	Type	Ohms	EACH	Stk. No.	Type	Ohms	EACH
9F251	T4	4	3.09	9F281	L4	4	2.73
9F252	T6	6		9F282	L6	6	
9F253	T8	8		9F283	L8	8	
9F254	T15	15		9F284	L15	15	
9F255	T50	50		9F285	L50	50	
9F256	T100	100		9F286	L100	100	
9F258	T250	250		9F287	L200	200	
9F259	T500	500		9F288	L250	250	
9F260	T600	600		9F289	L500	500	
9F261	T1000	1000		9F290	L600	600	
9F262	T2000	2000		9F291	L1000	1000	
9F263	T3000	3000		9F292	L2000	2000	
				9F293	L3000	3000	

NEWARK — Carries a complete line of P. R. Mallory Potentiometers and Rheostats plus Condensers and other precision Electronic components.

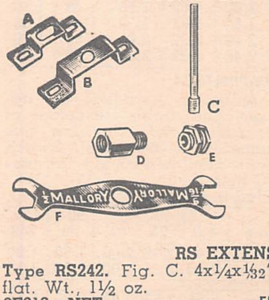
TYPE M AND MT WIRE WOUND POTENTIOMETERS

Compact high wattage controls rated 4 watts. Arm insulated from shaft . 275° rotation. Type MT are center tapped TV replacement units. 1⅝" dia. x 9/16". ¼" shaft, slotted 3/64x1/16" deep. extended ⅜" from bush. Mount in ⅜" hole. 4 oz.

Stk. No.	Type	Ohms	EACH
9F300	M1PK	1	1.35
9F337	M3PK	3	
9F302	M6PK	6	
9F328	MT10PK	10	1.32
9F303	M10PK	10	1.35
9F304	M15PK	15	
9F329	MT20PK	20	1.32
9F306	M25PK	25	1.35
9F307	M30PK	30	
9F336	MT30PK	30	
9F308	M40PK	40	
9F309	M50PK	50	
9F310	M60PK	60	
9F311	M75PK	75	
9F312	M100PK	100	
9F313	M200PK	200	

No.	Type	Ohms	EACH
9F331	M300PK	300	1.35
9F314	M400PK	400	
9F315	M500PK	500	
9F316	M600PK	600	
9F317	M1MPK	1M	1.35
9F332	M1.5MPK	1.5M	
9F318	M2MPK	2M	
9F333	M2.5MPK	2.5M	
9F319	M3MPK	3M	
9F338	M4MPK	4M	
9F321	M5MPK	5M	
9F322	M10MPK	10M	
9F323	M15MPK	15M	1.47
9F324	M20MPK	20M	
9F325	M25MPK	25M	
9F326	M50MPK	50M	1.74
9F327	M70MPK	70M	1.74
9F335	M100MPK	100M	2.46

VOLUME CONTROL ACCESSORIES



RB MOUNTING BRACKETS

Average shpg. wt., 3 oz.

No.	Type	Fig.	Mtg.	EACH
9F201	RB248	A	1¾"	21c
9F202	RB249	B	2½"	24c
9F218	RB254	....	Univ.	15c

TYPE 178 WRENCH

Fig. F. Wrench for ½" and 9/16" volume control hex nuts. Cadmium plated steel.
9F216. NET................................**.51**

RS EXTENSION SHAFTS

Type RS242. Fig. C. 4x¼x1/32" flat. Wt., 1½ oz.
9F212. NET................................**.57**

Type RS243. Fig. C. 4x¼x3/32" flat. Wt., 1 oz.
9F213. NET................................**.57**

COUPLERS AND BUSHINGS

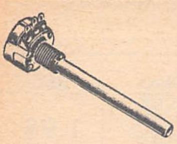
No.	Type	Fig.	EACH
9F206	EB247	D	.42
9F207	UB241	E	.09

HEX SHOULDER NUTS

No.	Type	Size	EACH
9F208	255	¾"	.12
9F209	A11260-12	½"	.15

CONTROLS

MALLORY VW WIREWOUND 5 WATT CONTROLS



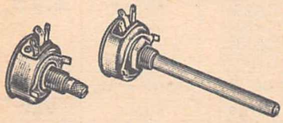
Subminiature Industrial 5 Watt potentiometer. Ideal for limited space applications. Case size only ¾ of an inch in diameter by ⅞" in depth. Bushing ⅜"x⅜" in diameter and length. Has ¼" plain round shaft 2½" from mounting surface.

Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-up
9F033	VW-1	1	1.35	1.24	1.15	1.04	.92
9F034	VW-2	2					
9F035	VW-3	3					
9F036	VW-5	5					
9F037	VW-6	6					
9F038	VW-8	8					
9F039	VW-10	10					
9F040	VW-15	15					
9F041	VW-20	20					
9F042	VW-25	25					
9F043	VW-30	30					
9F044	VW-35	35					
9F045	VW-50	50					
9F046	VW-60	60					
9F047	VW-75	75					

Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-up
9F048	VW-100	100	1.35	1.24	1.15	1.04	.92
9F049	VW-200	200					
9F055	VW-250	250					
9F056	VW-300	300					
9F057	VW-400	400					
9F058	VW-500	500					
9F059	VW-600	600					
9F060	VW-750	750					
9F061	VW-1K	1000					
9F062	VW-1.5K	1500	1.41	1.30	1.20	1.08	.96
9F063	VW-2K	2000					
9F064	VW-2.5K	2500					
9F065	VW-3K	3000					
9F066	VW-4K	4000					
9F067	VW-5K	5000					
9F068	VW-7.5K	7500	1.47	1.35	1.25	1.13	1.00
9F069	VW-10K	10000					
9F070	VW-15K	15000	1.53	1.40	1.30	1.17	1.04
9F071	VW-20K	20000					
9F072	VW-25K	25000	1.60	1.49	1.38	1.24	1.00

CENTRALAB

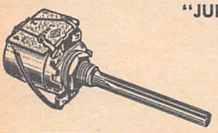
WW AND WN WIREWOUND CONTROLS



Rated full 5 watts — small as other 2 watt controls. 13/32" dia., 9/16" depth, WW shaft ¼" dia. full round, 2⅝" lg., WN shaft fingertip knurl, screwdriver slotted, ⅜" lg. from end of bushing. Linear taper. Shpg. wt., 4 oz.

Stk. No.	Type WW	Stk. No.	Type WN	Ohms	1-9	10-24	25-49	50-99	100-249
9F400	010	9F433	010	1	1.14	1.03	.95	.91	.86
9F401	020	9F434	020	2					
9F402	030	9F435	030	3					
9F403	040	9F436	040	4					
9F404	050	9F437	050	5					
9F405	060	9F438	060	6					
9F406	080	9F439	080	8					
9F407	100	9F440	100	10					
9F408	150	9F441	150	15					
9F409	200	9F442	200	20					
9F410	250	9F443	250	25					
9F411	300	9F444	300	30					
9F412	400	9F445	400	40					
9F413	500	9F446	500	50					
9F414	600	9F447	600	60					
9F415	750	9F448	750	75					
9F416	101	9F449	101	100					
9F417	201	9F450	201	200					
9F418	251	9F451	251	250					
9F419	301	9F452	301	300					
9F420	401	9F453	401	400					
9F421	501	9F454	501	500					
9F422	751	9F455	751	750					
9F423	102	9F456	102	1000					
9F424	152	9F457	152	1500					
9F425	202	9F458	202	2000					
9F426	252	9F459	252	2500					
9F427	302	9F460	302	3000					
9F428	402	9F461	402	4000					
9F429	502	9F462	502	5000					
9F430	752	9F463	752	7500					
9F431	103	9F464	103	10000					
9F432	153	9F465	153	15000					
9F683	203	9F690	203	20000	1.50	1.35	1.25	1.19	1.13
9F684	253	9F691	253	25000	1.50	1.35	1.25	1.19	1.13
9F685	303	9F692	303	30000	1.50	1.35	1.25	1.19	1.13
9F686	403	9F693	403	40000	1.80	1.62	1.50	1.43	1.36
9F687	503	9F694	503	50000	1.80	1.62	1.50	1.43	1.36
9F688	753	9F695	753	75000	2.46	2.22	2.05	1.95	1.86
9F689	104	9F696	104	100000	2.46	2.22	2.05	1.95	1.86

"JUNIOR" COMPENTROL



Designed to better reproduce the apparent bass and treble response of amplifiers, radio, and television sets when volume is at low level. Switch is SPST with insulated shield for preventing AC hum. Shaft size 3x15/16". Wt., 5 oz. Installed in place of volume control.

Stk. No.	Type	Desc.	Ohms	1-9	10-24	25-49	50-99	100-249
9F789	C1-60	Less switch	.5 meg.	2.40	2.16	2.00	1.90	1.80
9F791	C1-70	Less switch	1.0 meg.	2.40	2.16	2.00	1.90	1.80
9F790	C1-60-S	With switch	.5 meg.	2.85	2.57	2.38	2.26	2.14
9F792	C1-70-S	With switch	1.0 meg.	2.85	2.57	2.38	2.26	2.14
9F489	C2-60	Stereo Twin	500 K	3.30	2.97	2.75	2.61	2.48
9F490	C2-70	Stereo Twin	1 meg	3.30	2.97	2.75	2.61	2.48

MINIATURE WIREWOUND CONTROLS (MIL-R-19A)

Type JWP

Completely enclosed resistance element. Rated: 1½ watts at 40°C. derated to 0 watts at 125°C. Body dia.: 43/64". Bushing: Plain type, ¼"-32 NEF-2A thrd., ¼" long. Shaft: stainless steel. Slotted, ⅛" dia. x ⅞" long. Left side locating lug. Tol.: ±5%. Rotation: 250%±3°. Linear taper. With mtg. nut and lockwasher. Wt. 4 oz.

Stock No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249
9F1522	JWP-500	50	6.00	5.40	4.50	3.60	3.24
9F1523	JWP-101	100					
9F1524	JWP-201	200					
9F1525	JWP-301	300					
9F1526	JWP-501	500					
9F1527	JWP-751	750					
9F1528	JWP-102	1000					
9F1529	JWP-152	1500					
9F1530	JWP-202	2000					
9F1531	JWP-252	2500					
9F1532	JWP-302	3000					
9F1533	JWP-402	4000					
9F1534	JWP-502	5000					
9F1535	JWP-752	7500					
9F1536	JWP-103	10K					
9F1537	JWP-153	15K	8.40	7.56	6.30	5.04	4.54
9F1538	JWP-203	20K	8.40	7.56	6.30	5.04	4.54
9F1539	JWP-253	25K	8.40	7.56	6.30	5.04	4.54
9F1540	JWP-303	30K	10.11	9.10	7.59	6.07	5.46

Type JWL

Similar to type JWP except locking bushing is ⅜" long and shaft is 7/16" long.

9F1541	JWL-500	50	6.00	5.40	4.50	3.60	3.24
9F1542	JWL-101	100					
9F1543	JWL-201	200					
9F1544	JWL-301	300					
9F1545	JWL-501	500					
9F1546	JWL-751	750					
9F1547	JWL-102	1000					
9F1548	JWL-152	1500					
9F1549	JWL-202	2000					
9F1550	JWL-252	2500					
9F1551	JWL-302	3000					
9F1552	JWL-402	4000					
9F1553	JWL-502	5000					
9F1554	JWL-752	7500					
9F1555	JWL-103	10K					
9F1556	JWL-153	15K	8.40	7.56	6.30	5.04	4.54
9F1557	JWL-203	20K	8.40	7.56	6.30	5.04	4.54
9F1558	JWL-253	25K	8.40	7.56	6.30	5.04	4.54
9F1559	JWL-303	30K	10.11	9.10	7.59	6.07	5.46

CRL "SENIOR" COMPENTROL

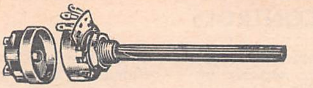
Model C2-100. Replaces 250K-2 Meg Dual control which compensates for Fletcher-Munson curves. Incorporates a "level set" control to adjust the amount of compensation at any one level of volume. Compensates your particular equipment. Universal unit will exactly replace original control of any resistance value. Shaft: outer—7/16" lg.; inner—15/16" lg. With knobs. Shipping weight, 6 oz.

Stk. No.	1-9	10-24	25-49	50-99	100-249
9F788	3.30	2.97	2.75	2.61	2.48

Model C2-200. As above except in Fastatch construct. Front and rear controls separaté. Shipping wt., 8 oz.

9F787	3.30	2.97	2.75	2.61	2.48

MODEL B CONTROLS



½ watt, 15⁄16" dia., universal fluted shaft 3" lg., Use KR switches. Less switch.

Stk.No.	Type	Ohms	Taper	1-9	10-24	25-49	50-99	100-249
9F472	B-1	100	C1	1.02	.92	.85	.81	.77
9F600	B-2	200	C1					
9F824	B-4	500	C1					
9F601	B-415	750	C5					
9F800	B-5	1,000	C1					
9F603	B-515	1,500	C5					
9F825	B-6	2,000	C1					
9F826	B-7	2,500	C1					
9F473	B-702	2,500	C2					
9F827	B-8	3,000	C1					
9F605	B-9	4,000	C1					
9F801	B-10	5,000	C1					
9F828	B-11	5,000	C2					
9F802	B-14	10,000	C1					
9F835	B-15	10,000	C2					
9F836	B-18	10,000	C4					
9F837	B-17	10,000	C5					
9F606	B-19	15,000	C5					
9F840	B-22	20,000	C1					
9F841	B-23	20,000	C5					
9F474	B-25	25,000	C2					
9F804	B-26	25,000	C1					
9F843	B-28	25,000	C6					
9F607	B-29	25,000	C4					
9F805	B-31	50,000	C1					
9F806	B-32	50,000	C2					
9F608	B-34	50,000	C5					
9F844	B-35	75,000	C1					
9F609	B-36	75,000	C5					
9F807	B-40	100,000	C1					
9F808	B-41	100,000	C2					
9F610	B-43	150,000	C1					
9F845	B-44	150,000	C2					
9F846	B-46	200,000	C1					
9F847	B-50	250,000	C1					
9F848	B-51	250,000	C2					
9F810	B-59	.5 meg.	C1					
9F811	B-60	.5 meg.	C2					
9F611	B-616	.5 meg.	C6					
9F852	B-617	.5 meg.	C7					

MODEL B CONTROLS (CONT.)

Stk.No.	Type	Ohms	Taper	1-9	10-24	25-49	50-99	100-249
9F612	B-66	750,000	C1	1.02	.92	.85	.81	.77
9F853	B-69	1 meg.	C1					
9F812	B-70	1 meg.	C2					
9F854	B-744	1 meg.	C4					
9F855	B-68	1 meg.	C5					
9F613	B-742	1.5 megs	C1					
9F857	B-75	2 megs	C1					
9F813	B-76	2 megs	C2					
9F858	B-77	2 megs	C5					
9F859	B-83	2.5 megs	C1					
9F860	B-84	3 megs	C1					
9F861	B-85	3 megs	C2					
9F862	B-86	4 megs	C1					
9F814	B-87	5 megs	C1					
9F616	B-88	5 megs	C2					
9F863	B-89	7 megs	C7					
9F476	B-90	7.5 megs	C1					
9F815	B-98	10 megs	C1					

TYPE BT TAPPED CONTROLS

Stk.No.	Type	Megs	Tap	Taper	1-9	10-24	25-49	50-99	100-249
9F864	BT-33	.05	25K	C11	1.35	1.22	1.13	1.07	1.02
9F618	BT-47	.2	100K	C11					
9F865	BT-53	.25	125K	C11					
9F866	BT-55	.25	75K	C13					
9F817	BT-65	.5	250K	C11					
9F868	BT-66	.5	100K	C12					
9F816	BT-67	.5	150K	C13					
9F651	BT-64	.5	250K	C16					
9F870	BT-71	1	500K	C11					
9F819	BT-73	1	300K	C13					
9F871	BT-74	1	500K	C16					
9F873	BT-78	2	1 Meg	C11					
9F822	BT-80	2	600K	C13					
9F823	BT-82	2	1 Meg	C16					
9F653	BT-8515	3	300K	C15					
9F654	BT-8517	3	300K	C17					

TYPE BT DUAL TAPPED CONTROLS

Stk.No.	Type	Ohms	Taps	1-9	10-24	25-49	50-99	100-249
9F481	BT-160	500K	100K-250K	1.35	1.22	1.13	1.07	1.02
9F483	BT-165	1 meg	200K-500K					
9F484	BT-167	1.5 meg	250K-500K					

TAPERS FOR CENTRALAB CONTROLS

C1. Linear, has uniform resistance change from either end. C2. Semi-log (audio) 10% center. C3. Right-hand semi-log—reverse of C2. C4. Modified log with 20% center. C5. Right-hand modified log with 20% center. C6. Modified log with 40% center. C7. Symmetrical straight line. C11. Taper tapped at 50% rotation, 50% resistance. C12. Taper tapped at 37½% rotation, 20% resistance. C13. Taper tapped at 50% rotation, 30% resis. C14. Taper tapped at 62% rotation, 30% resis. C15. Taper tapped at 50% rotation. 10% resis. C16. Taper tapped at 62% rotation, 50% resis. C17. Taper tapped at 37½% rotation, 10% resis.

MODEL SR PLAIN TYPE SNAP-ON REAR UNITS

Snap-On Rear Units added to Model B or AB Controls provides ganged twin controls for stereo applications. Convert to switch type by snapping on KR Fastatch Switches.

Stk.No.	Type	Ohms	Taper	1-9	10-24	25-49	50-99	100-249
8F902	SR-31	50K	C1	1.14	1.03	.95	.91	.86
8F904	SR-41	100K	C2					
8F905	SR-50	250K	C1					
8F907	SR-59	500K	C1					
8F908	SR-60	500K	C2					
8F912	SR-69	1 meg	C1					
8F913	SR-70	1 meg	C2					
8F914	SR-75	2 meg	C1					

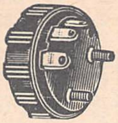
TYPE KR FASTATCH SWITCHES FOR MODEL B CONTROLS

3 Amps—125 Volts

Stk.No.	Type	Circuit	1-9	10-24	25-49	50-99	100-249
9F466	KR-1†	SPST	.42	.38	.35	.34	.32
9F467	KR-2	DPST	.51	.46	.43	.41	.39
9F468	KR-3*	DP (1 on 1 off)	.51	.46	.43	.41	.39
15 Amps—10 Volts							
9F469	KR-4	SPST	.66	.60	.55	.53	.50
9F470	KR-6**	SPST					
9F471	KR-7	DPST					

*Can be used as SPDT. **With dummy lug. †5 amps.

SUBMINIATURE CONTROLS



Type SM2. Rated at 1/10 watt. 19⁄32" dia. by ¼". Control and switch enclosed within knob. SPST switch rated at 6.5 amp at 1.5 v., 2 amps at 45 v. All C-2 audio taper. Shipping weight approximately 3 oz.

Stk.No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249
9F647	SM2-252-S	2500	3.75	3.38	3.13	2.97	2.82
9F648	SM2-502-S	5000					
9F649	SM2-103-S	10000					
9F650	SM2-253-S	25000					

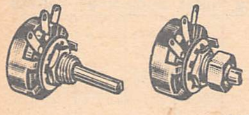
MINIATURE CONTROLS

Type B16 Rated at 1/10 watt. Size: 23/32" with knob. Where space is a premium, the size can be reduced to ⅝" diameter by removing the knob. Breakdown: 900 volts AC-RMS to ground. The plain type is stud mounted; two No. 1-72NF-2 Thd. x .134" Long on .427" centers. The switch type is bracket mounted, and should be mounted on an insulated material. These units are packaged with complete instructions, mounting nuts, and mounting screws. SPST switch rated at 6.5 amps at 1.5 volts. Shipping weight is 3 oz.

TAPER	OHMS	Stock No.	Type Plain	1-9	10-24	25-49	50-99	100-249	Stock No.	Type Switch	1-9	10-24	25-49	50-99	100-249
C1	500	9F621	B16-107	1.50	1.35	1.25	1.19	1.13	....	....	2.40	2.16	2.00	1.90	1.80
C1	1000	9F622	B16-109						....	....					
C1	2500	9F623	B16-111						....	....					
C2	2500	9F624	B16-112						9F638	B16-212					
C1	5000	9F625	B16-113						....	....					
C2	5000	9F626	B16-114						9F639	B16-214					
C1	10K	9F627	B16-115						....	....					
C2	10K	9F628	B16-116						9F640	B16-216					
C2	25K	9F629	B16-117						9F641	B16-217					
C1	50K	9F630	B16-119						....	....					
C1	100K	9F631	B16-121						....	....					
C1	250K	9F632	B16-123						....	....					
C2	500K	9F633	B16-118						9F642	B16-218					
C2	1 Meg.	9F634	B16-120						9F643	B16-220					
C2	2 Meg.	9F635	B16-122						9F644	B16-222					
C2	3 Meg.	9F636	B16-124						9F645	B16-224					
C2	5 Meg.	9F637	B16-128						9F646	B16-228					

Centralab. CONTROLS & POTENTIOMETERS

MILITARY CONTROLS



Meets MIL-R-94B Style RVI. The element is completely enclosed permitting further sealing or encapsulation. Rated: 1/5 watt at 70°C; derated to 0 watts at 120°C. 43/64" dia. Tol.: ±10%. Breakdown: 900 volts AC-RMS. Shpg. wt., 5 oz. **Items requiring certified test data and government source inspection are special; prices and information supplied upon request.**

MODEL JMP

Bushing: 1/4"-32 NEF-2A thrd. 1/4" long from mtg. surface. Shaft: Stainless steel, slotted. 1/8" dia. x 7/8" long. Left side locating lug. Rotation: 260°±3°. With mtg. nut and lockwasher.

Stock No.	Type	Mil. Type	Ohms	1-9	10-24	25-49	50-99	100-249
9F1500	JMP-501	RV1NAXSD501A	500	4.20	3.78	3.15	2.52	2.27
9F1501	JMP-102	RV1NAXSD102A	1000	4.20	3.78	3.15	2.52	2.27
9F1502	JMP-252	RV1NAXSD252A	2500	4.20	3.78	3.15	2.52	2.27
9F1503	JMP-502	RV1NAXSD502A	5000	4.20	3.78	3.15	2.52	2.27
9F1504	JMP-103	RV1NAXSD103A	10K	4.20	3.78	3.15	2.52	2.27
9F1505	JMP-253	RV1NAXSD253A	25K	4.20	3.78	3.15	2.52	2.27
9F1506	JMP-503	RV1NAXSD503A	50K	4.20	3.78	3.15	2.52	2.27
9F1507	JMP-104	RV1NAXSD104A	100K	4.20	3.78	3.15	2.52	2.27
9F1508	JMP-254	RVINAXSD254A	250K	4.20	3.78	3.15	2.52	2.27
9F1509	JMP-504	RV1NAXSD504A	500K	4.20	3.78	3.15	2.52	2.27
9F1510	JMP-105	RV1NAXSD105A	1 MEG.	4.20	3.78	3.15	2.52	2.27

TYPE JML

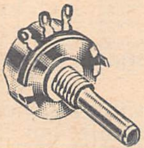
Bushing: Locking type 1/4"-32 NEF-2A thrd. 3/8" long with locking nut. Shaft: Stainless steel, sloted, 1/8" dia. x 1/2" long. Left side locating lug. Rotation: 260°±3°. With mtg. nut and lockwasher.

Stock No.	Type	Mil. Type	Ohms	1-9	10-24	25-49	50-99	100-249
9F1511	JML-501	RV1LAXSB501A	500	4.50	4.05	3.38	2.70	2.43
9F1512	JML-102	RV1LAXSB102A	1000	4.50	4.05	3.38	2.70	2.43
9F1513	JML-252	RV1LAXSB252A	2500	4.50	4.05	3.38	2.70	2.43
9F1514	JML-502	RV1LAXSB502A	5000	4.50	4.05	3.38	2.70	2.43
9F1515	JML-103	RV1LAXSB103A	10K	4.50	4.05	3.38	2.70	2.43
9F1516	JML-253	RV1LAXSB253A	25K	4.50	4.05	3.38	2.70	2.43
9F1517	JML-503	RV1LAXSB503A	50K	4.50	4.05	3.38	2.70	2.43
9F1518	JML-104	RV1LAXSB104A	100K	4.50	4.05	3.38	2.70	2.43
9F1519	JML-254	RV1LAXSB254A	250K	4.50	4.05	3.38	2.70	2.43
9F1520	JML-504	RV1LAXSB504A	500K	4.50	4.05	3.38	2.70	2.43
9F1521	JML-105	RV1LAXSB105A	1 MEG.	4.50	4.05	3.38	2.70	2.43

HOT MOLDED POTENTIOMETERS

"Hot Molded" carbon potentiometers offer greatly increased high voltage capability due to wide clearance between bushing and collector track; greater freedom from contamination from dirt due to elevated resistance track; give exceptionally long noise-free operation.

TYPE ACS—2-WATT (Plain Bushing)



MIL-R-94 Style RV4. Size: 13/32" dia., 5/8" deep behind panel. Slotted shaft, 1/4" dia., 2½" long FMS. Bushing 3/8"-32NEF 2A Thrd—3/8" long. Tolerance: ±10% except (*) which are ±20%. Rot.: 312°±3°. Torque: 6 oz./inch.

Stk. No.	Type	Ohms	Taper	1-9	10-24	25-49	50-99	100-249
9F1560	ACS9-500-U	50	lin.	1.95	1.76	1.63	1.55	1.47
9F1561	ACS9-101-U	100	lin.	1.95	1.76	1.63	1.55	1.47
9F1562	ACS9-251-U	250	lin.	1.95	1.76	1.63	1.55	1.47
9F1563	ACS9-501-U	500	lin.	1.95	1.76	1.63	1.55	1.47
9F1564	ACS9-102-U	1000	lin.	1.95	1.76	1.63	1.55	1.47
9F1565	ACS9-252-U	2500	lin.	1.95	1.76	1.63	1.55	1.47
9F1566	ACS9-502-U	5000	lin.	1.95	1.76	1.63	1.55	1.47
9F1567	ACS9-103-U	10K	lin.	1.95	1.76	1.63	1.55	1.47
9F1568	ACS9-103-B	10K	log.	2.25	2.03	1.88	1.79	1.69
9F1569	ACS9-253-U	25K	lin.	1.95	1.76	1.63	1.55	1.47
9F1570	ACS9-253-B	25K	log.	2.25	2.03	1.88	1.79	1.69
9F1571	ACS9-503-U	50K	lin.	1.95	1.76	1.63	1.55	1.47
9F1572	ACS9-503-B	50K	log.	2.25	2.03	1.88	1.79	1.69
9F1573	ACS9-104-U	100K	lin.	1.95	1.76	1.63	1.55	1.47
9F1574	ACS9-104-A	100K	log.	2.25	2.03	1.88	1.79	1.69
9F1575	ACS9-254-U	250K	lin.	1.95	1.76	1.63	1.55	1.47
9F1576	ACS9-254-A	250K	log.	2.25	2.03	1.88	1.79	1.69
9F1577	ACS9-504-U	500K	lin.	1.95	1.76	1.63	1.55	1.47
9F1578	ACS9-504-A	500K	log.	2.25	2.03	1.88	1.79	1.69
9F1579	ACS9-105-M*	1 MEG.	lin.	1.95	1.76	1.63	1.55	1.47
9F1580	ACS9-105-R*	1 MEG.	log.	2.25	2.03	1.88	1.79	1.69
9F1581	ACS9-255-M*	2.5 MEG.	lin.	1.95	1.76	1.63	1.55	1.47
9F1582	ACS9-255-R*	2.5 MEG.	log.	2.25	2.03	1.88	1.79	1.69
9F1583	ACS9-505-M*	5 MEG.	lin.	1.95	1.76	1.63	1.55	1.47

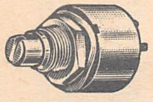
TYPE AFS—2-WATT (Locking Bushing)

MIL-R-94 Style RV4. Size: 13/32" dia., 5/8" deep behind panel. Slotted shaft, 1/4" dia., 5/8" long FMS. Bushing 3/8"-32NEF 2A Thrd—1/2" long. Tolerance ±10% except (*) which are ±20%. Rotation: 312°±3°. Torque: to 6 oz./inch.

Stk. No.	Type	Ohms	Taper	1-9	10-24	25-49	50-99	100-249
9F1584	AFS5-500-U	50	lin.	2.55	2.30	2.13	2.02	1.92
9F1585	AFS5-101-U	100	lin.	2.55	2.30	2.13	2.02	1.92
9F1586	AFS5-251-U	250	lin.	2.55	2.30	2.13	2.02	1.92
9F1587	AFS5-501-U	500	lin.	2.55	2.30	2.13	2.02	1.92
9F1588	AFS5-102-U	1000	lin.	2.55	2.30	2.13	2.02	1.92
9F1589	AFS5-252-U	2500	lin.	2.55	2.30	2.13	2.02	1.92
9F1590	AFS5-502-U	5000	lin.	2.55	2.30	2.13	2.02	1.92
9F1591	AFS5-103-U	10K	lin.	2.55	2.30	2.13	2.02	1.92
9F1592	AFS5-253-U	25K	lin.	2.55	2.30	2.13	2.02	1.92
9F1593	AFS5-503-U	50K	lin.	2.55	2.30	2.13	2.02	1.92
9F1594	AFS5-104-U	100K	lin.	2.55	2.30	2.13	2.02	1.92
9F1595	AFS5-254-U	250K	lin.	2.55	2.30	2.13	2.02	1.92
9F1596	AFS5-504-U	500K	lin.	2.55	2.30	2.13	2.02	1.92
9F1597	AFS5-105-M*	1 MEG.	lin.	2.55	2.30	2.13	2.02	1.92
9F1598	AFS5-255-M*	2.5 MEG.	lin.	2.55	2.30	2.13	2.02	1.92
9F1599	AFS5-505-M*	5 MEG.	lin.	2.55	2.30	2.13	2.02	1.92

Newark can supply all Centralab Potentiometers.
Look to Newark for all your Industrial Electronic needs.

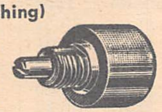
TYPE NCP—3/4-WATT (Standard Bushing)



Size: 23/32" diameter, 1/2" deep behind panel. Plain round shaft, 1/4" dia., 2½" long from mounting surface. Bushing 3/8"-32NEF 2A Thrd —3/8" long. Tolerance ±10% except (*) which are ±20%. Rot.: 300°±3°.

Stk. No.	Type	Ohms	Taper	1-9	10-24	25-49	50-99	100-249
9F1600	NCP9-501-U	500	lin.	2.10	1.89	1.75	1.66	1.58
9F1601	NCP9-102-U	1000	lin.	2.10	1.89	1.75	1.66	1.58
9F1602	NCP9-252-U	2500	lin.	2.10	1.89	1.75	1.66	1.58
9F1603	NCP9-502-U	5000	lin.	2.10	1.89	1.75	1.66	1.58
9F1604	NCP9-103-U	10K	lin.	2.10	1.89	1.75	1.66	1.58
9F1605	NCP9-103-B	10K	log.	2.10	1.89	1.75	1.66	1.58
9F1606	NCP9-253-U	25K	lin.	2.10	1.89	1.75	1.66	1.58
9F1607	NCP9-253-B	25K	log.	2.10	1.89	1.75	1.66	1.58
9F1608	NCP9-503-U	50K	lin.	2.10	1.89	1.75	1.66	1.58
9F1609	NCP9-503-B	50K	log.	2.10	1.89	1.75	1.66	1.58
9F1610	NCP9-104-U	100K	lin.	2.10	1.89	1.75	1.66	1.58
9F1611	NCP9-104-A	100K	log.	2.10	1.89	1.75	1.66	1.58
9F1612	NCP9-254-U	250K	lin.	2.10	1.89	1.75	1.66	1.58
9F1613	NCP9-254-A	250K	log.	2.10	1.89	1.75	1.66	1.58
9F1614	NCP9-504-U	500K	lin.	2.10	1.89	1.75	1.66	1.58
9F1615	NCP9-504-A	500K	log.	2.10	1.89	1.75	1.66	1.58
9F1616	NCP9-105-M*	1 MEG.	lin.	2.10	1.89	1.75	1.66	1.58
9F1617	NCP9-105-R*	1 MEG.	log.	2.10	1.89	1.75	1.66	1.58
9F1618	NCP9-255-M*	2.5 MEG.	lin.	2.10	1.89	1.75	1.66	1.58

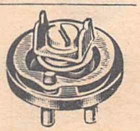
TYPE PNS—1/2-WATT (Seal Bushing)



MIL-R-94 Style RV6. Size: 1/2" dia., 15/32" behind panel. Slotted shaft, 1/8" dia., 7/8" long from mounting surface. Bushing 1/4"-32NEF 2A Thrd—1/4" long. Completely sealed shaft and case. Tolerance ±10%, except (*) ±20%. Rotation: 290°±3°. Torque: 1.5 oz./inch.

Stk. No.	Type	Ohms	Taper	1-9	10-24	25-49	50-99	100-249
9F1619	PNS7-501-U	500	lin.	5.10	4.59	4.25	4.04	3.83
9F1620	PNS7-102-U	1000	lin.	5.10	4.59	4.25	4.04	3.83
9F1621	PNS7-252-U	2500	lin.	5.10	4.59	4.25	4.04	3.83
9F1622	PNS7-502-U	5000	lin.	5.10	4.59	4.25	4.04	3.83
9F1623	PNS7-103-U	10K	lin.	5.10	4.59	4.25	4.04	3.83
9F1624	PNS7-253-U	25K	lin.	5.10	4.59	4.25	4.04	3.83
9F1625	PNS7-503-U	50K	lin.	5.10	4.59	4.25	4.04	3.83
9F1626	PNS7-104-U	100K	lin.	5.10	4.59	4.25	4.04	3.83
9F1627	PNS7-254-U	250K	lin.	5.10	4.59	4.25	4.04	3.83
9F1628	PNS7-504-U	500K	lin.	5.10	4.59	4.25	4.04	3.83
9F1629	PNS7-105-M*	1 MEG.	lin.	5.10	4.59	4.25	4.04	3.83
9F1630	PNS7-255-M*	2.5 MEG.	lin.	5.10	4.59	4.25	4.04	3.83

TYPE TMX—1/3 WATT

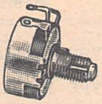


Extremely resistant to shock vibration and acceleration. Special U-shaped shaft. Mounted by threaded stud thru center of unit. Size: 19/32" dia., 11/32" deep. Tolerance: ±20%. Rotation: 300°±3°.

9F1631	TMX0-501-M	500	lin.	2.10	1.89	1.75	1.66	1.58
9F1632	TMX0-102-M	1000	lin.	2.10	1.89	1.75	1.66	1.58
9F1633	TMX0-252-M	2500	lin.	2.10	1.89	1.75	1.66	1.58
9F1634	TMX0-502-M	5000	lin.	2.10	1.89	1.75	1.66	1.58
9F1635	TMX0-103-M	10K	lin.	2.10	1.89	1.75	1.66	1.58
9F1636	TMX0-253-M	25K	lin.	2.10	1.89	1.75	1.66	1.58
9F1637	TMX0-503-M	50K	lin.	2.10	1.89	1.75	1.66	1.58
9F1638	TMX0-104-M	100K	lin.	2.10	1.89	1.75	1.66	1.58
9F1639	TMX0-254-M	250K	lin.	2.10	1.89	1.75	1.66	1.58
9F1640	TMX0-504-M	500K	lin.	2.10	1.89	1.75	1.66	1.58
9F1641	TMX0-105-M	1 MEG.	lin.	2.10	1.89	1.75	1.66	1.58
9F1642	TMX0-255-M	2.5 MEG.	lin.	2.10	1.89	1.75	1.66	1.58

CLAROSTAT POTENTIOMETERS

43C2 2 WATT WW POTENTIOMETERS



Moisture and dust proof construction. Corrosion proof finish; locking bushings and reduced tolerance makes this 2 watt, wire-wound control an item of consistent demand. Tolerance ±5% for all ohmages. Independent linearity is to ±2%. ⅛ screwdriver slotted shaft with ½" split locking bushing. Diam. 1 5/32x⅝" deep. Shipping weight, 4 oz.

No.	Type	Res. Ohms	NET
8F400	43C2-5	5	2.20
8F401	43C2-10	10	
8F402	43C2-20	20	
8F403	43C2-25	25	
8F404	43C2-30	30	
8F405	43C2-40	40	
8F406	43C2-50	50	
8F407	43C2-75	75	
8F408	43C2-100	100	
8F409	43C2-150	150	
8F410	43C2-200	200	
8F411	43C2-300	300	
8F412	43C2-400	400	
8F413	43C2-500	500	
8F414	43C2-750	750	
8F415	43C2-1000	1000	
8F416	43C2-1500	1500	
8F417	43C2-2000	2000	
8F418	43C2-2500	2500	
8F419	43C2-3000	3000	
8F420	43C2-4000	4000	
8F421	43C2-5000	5000	
8F422	43C2-7500	7500	
8F423	43C2-10K	10 K	
8F424	43C2-15K	15 K	2.50
8F425	43C2-20K	20 K	2.50
8F426	43C2-25K	25 K	2.50
8F427	43C2-30K	30 K	2.94
8F428	43C2-40K	40 K	2.94
8F429	43C2-50K	50 K	2.94

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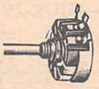
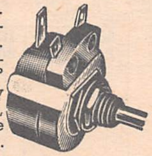
58C1 WIRE-WOUND POTENTIOMETERS



Moisture and dust proof construction; corrosion proof finish; Standard bushings; wire-wound; with all controls rated at 3 watts. Electrical tolerance is ±5% with all ohmages. Independent linearity is to ±1%. Available up to 50K Ohms. Diam. 1 23/32x1" depth. Shpg. wt.: 4 oz.

No.	Type	Res. Ohms	NET
8F430	58C1-1	1	1.32
8F431	58C1-2	2	
8F432	58C1-4	4	
8F433	58C1-6	6	
8F434	58C1-10	10	
8F435	58C1-15	15	
8F436	58C1-20	20	
8F437	58C1-30	30	
8F438	58C1-40	40	
8F439	58C1-50	50	
8F440	58C1-60	60	
8F441	58C1-75	75	
8F442	58C1-100	100	
8F443	58C1-200	200	
8F444	58C1-300	300	
8F445	58C1-400	400	
8F446	58C1-500	500	
8F447	58C1-750	750	
8F448	58C1-1000	1000	
8F449	58C1-1500	1500	
8F450	58C1-2000	2000	
8F451	58C1-2500	2500	
8F452	58C1-3000	3000	
8F453	58C1-5000	5000	
8F454	58C1-7500	7500	
8F455	58C1-10K	10 K	
8F456	58C1-15K	15 K	1.76
8F457	58C1-20K	20 K	
8F458	58C1-25K	25 K	
8F459	58C1-30K	30 K	1.97
8F460	58C1-40K	40 K	
8F461	58C1-50K	50 K	

WW MIN. CONTROLS

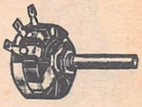


Series 49M-9. Single pot. with shaft locking bushing. Power rating 1.5 w. ¾" low loss housing. Linear taper resis. thru 300° rotat. Shaft ⅛" dia. by 1/16". Bkdn. between mtg. element or term. above 1,000 VAC. Shpg. wt. 4 oz.

SERIES 49M-9

No.	Ohms	1-9	10-24	25-49	50-99
9F542	5	9.72	7.29	6.25	5.21
9F543	10	7.98	5.99	5.13	4.28
9F544	20				
9F545	25				
9F546	50				
9F547	100				
9F548	200				
9F549	250				
9F550	500				
9F551	1000				
9F552	1500				
9F553	2000				
9F554	2500				
9F555	5000				
9F556	7500				
9F557	10 K				

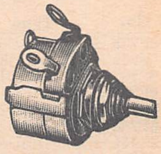
TYPE 58 WW CONTROLS



Linear type, wire-wound 3 watt controls designed for use in test equipment and extremely delicate laboratory instruments. Stable and noiseless. Especially recommended for use in bridges and oscilloscopes. All are 1 23/32" dia. x 13/16" deep except * 1" deep. Mount in ⅜" hole with nut and washer. Average weight, 4 oz. ±10% tolerance.

No.	Type	Ohms	NET
9F700	58-1	1	.91
9F701	58-2	2	
9F702	58-4	4	
9F703	58-6	6	
9F704	58-10	10	
9F705	58-15	15	
9F706	58-20	20	
9F707	58-25	25	
9F708	58-30	30	
9F709	58-40	40	
9F710	58-50	50	
9F711	58-60	60	
9F712	58-75	75	
9F713	58-100	100	
9F714	58-200	200	
9F715	58-300	300	
9F716	58-400	400	
9F717	58-500	500	
9F718	58-750	750	
9F719	58-1,000	1,000	
9F720	58-2,000	2,000	
9F721	58-3000	3,000	
9F722	58-5,000	5,000	
9F723	58-7,500	7,500	
9F724	58-10K	10,000	
9F725	58-15K	15,000	1.18
9F726	58-20K	20,000	
9F727	58-25K	25,000	
9F728	58-30K	30,000	1.59
9F729	58-40K	40,000	
9F730	58-50K	50,000	
9F731	10-75K	*75,000	2.41
9F732	10-100K	*100,000	

MINIATURIZED CONTROLS



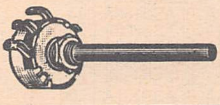
Series 48M-9. Single pot. with shaft locking bushing. Rated at 0.2 w. Dia. ⅝". Screwdriver slot shaft ⅛" diameter x 1/16" long. Split-locking bushing. ¼"x2NEF2A, ⅜" long. Tolerance, 1K-100K is 10%, balance 20%. Linear taper, 300° rotation.

SERIES 48M-9

No.	Ohms	1-9	10-24	25-49	50-99
9F513	1000	4.90	3.68	3.15	2.63
9F514	1500				
9F515	2500				
9F516	5000				
9F517	7500				
9F518	10K				
9F519	25K				
9F520	50K				
9F521	100K				
9F522	250K				
9F523	500K				
9F524	1 meg.				
9F525	2.5 meg.				

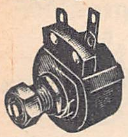
TYPE 43 2 WATT WIRE WOUND CONTROLS

Compact wire wound controls rated at 2 watts. Tolerances of these controls are in accordance with E.I.A. standards. Overall tolerance ±10% for all values. Linear taper. Molded phenolic body, 1⅛" dia. 9/16" deep. Has ⅜"-32 bushing. 2" long round shaft. Less switch. Wt., 4 oz.



No.	Type	Ohms	NET
9F760	43-5	5	.91
9F761	43-10	10	
9F762	43-20	20	
9F763	43-25	25	
9F764	43-30	30	
9F765	43-40	40	
9F766	43-50	50	
9F767	43-75	75	
9F768	43-100	100	
9F769	43-150	150	
9F770	43-200	200	
9F771	43-300	300	
9F772	43-400	400	.91
9F773	43-500	500	
9F774	43-750	750	
9F775	43-1,000	1,000	
9F776	43-1,500	1,500	
9F777	43-2,000	2,000	
9F778	43-2,500	2,500	
9F779	43-3,000	3,000	
9F780	43-4,000	4,000	
9F781	43-5,000	5,000	
9F782	43-7,500	7,500	
9F783	43-10K	10,000	

POTENTIOMETERS

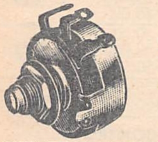


SERIES RA10—1 WATT WIRE WOUND

Meets Mil. Spec.—MIL-R-19A

±10% tolerance. Linear resistance taper. 25/32" dia. Shipping wt., 7 oz. **TYPE RA10NASD.** ¼" dia., bushing ¼" long. Slotted shaft ⅛" diameter, ⅞" long FMS. **TYPE RA10LASD.** Locking bushing ¼" dia., ⅜" long. Slotted shaft ⅛" dia. ⅞" long FMS.

Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249
8F832	RA10NASD150A	15	7.84	5.93	5.11	4.30	3.75
8F833	RA10NASD250A	25					
8F834	RA10NASD500A	50					
8F835	RA10NASD750A	75					
8F836	RA10NASD101A	100					
8F837	RA10NASD151A	150					
8F838	RA10NASD201A	200					
8F839	RA10NASD251A	250					
8F840	RA10NASD351A	350					
8F841	RA10NASD501A	500					
8F842	RA10NASD751A	750					
8F843	RA10NASD102A	1K					
8F844	RA10NASD152A	1.5K					
8F845	RA10NASD202A	2K					
8F846	RA10NASD252A	2.5K					
8F847	RA10LASD150A	15	8.18	6.19	5.33	4.68	3.91
8F848	RA10LASD250A	25					
8F849	RA10LASD500A	50					
8F850	RA10LASD750A	75					
8F851	RA10LASD101A	100					
8F852	RA10LASD151A	150					
8F853	RA10LASD201A	200					
8F854	RA10LASD251A	250					
8F855	RA10LASD351A	350					
8F856	RA10LASD501A	500					
8F857	RA10LASD751A	750					
8F858	RA10LASD102A	1K					
8F859	RA10LASD152A	1.5K					
8F860	RA10LASD202A	2K					
8F861	RA10LASD252A	2.5K					

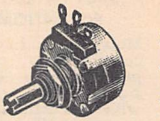


SERIES RA20—2 WATT WIRE WOUND

Meets Mil. Spec.—MIL-R-19A

Linear resistance taper ± 10% tolerance. 1 17/64" dia. Shpg. wt. 7 oz. **RA20NASD:** Standard bushing ⅜" long. Slotted shaft ¼" diameter ⅞" long FMS. **RA20LASB:** Locking bushing ½" long. Slotted shaft ¼" diameter ⅝" long FMS.

No.	Type	Ohms	1-24	25-34	35-49	50-64	65-99	100-249
8F735	RA20NASD6R0A	6	3.00	2.54	2.01	1.62	1.41	1.16
8F736	RA20NASD8R0A	8						
8F737	RA20NASD100A	10						
8F738	RA20NASD150A	15						
8F739	RA20NASD200A	20						
8F740	RA20NASD250A	25						
8F741	RA20NASD350A	35						
8F742	RA20NASD500A	50						
8F743	RA20NASD101A	100						
8F744	RA20NASD151A	150						
8F745	RA20NASD201A	200						
8F746	RA20NASD251A	250						
8F747	RA20NASD351A	350						
8F748	RA20NASD501A	500						
8F749	RA20NASD751A	750						
8F750	RA20NASD102A	1K						
8F751	RA20NASD152A	1.5K						
8F752	RA20NASD202A	2K						
8F753	RA20NASD252A	2.5K						
8F754	RA20NASD352A	3.5K						
8F755	RA20NASD502A	5K						
8F756	RA20NASD103A	10K						
8F757	RA20NASD153A	15K						
8F758	RA20LASB3R0A	3	3.00	2.62	2.09	1.70	1.49	1.24
8F759	RA20LASB6R0A	6						
8F760	RA20LASB8R0A	8						
8F761	RA20LASB100A	10						
8F762	RA20LASB150A	15						
8F763	RA20LASB200A	20						
8F764	RA20LASB250A	25						
8F765	RA20LASB350A	35						
8F766	RA20LASB500A	50						
8F767	RA20LASB101A	100						
8F768	RA20LASB151A	150						
8F769	RA20LASB201A	200						
8F770	RA20LASB251A	250						
8F771	RA20LASB351A	350						
8F772	RA20LASB501A	500						
8F773	RA20LASB751A	750						
8F774	RA20LASB102A	1K						
8F775	RA20LASB152A	1.5K						
8F776	RA20LASB202A	2K						
8F777	RA20LASB252A	2.5K						
8F778	RA20LASB352A	3.5K						
8F779	RA20LASB502A	5K						
8F780	RA20LASB103A	10K						
8F781	RA20LASB153A	15K						

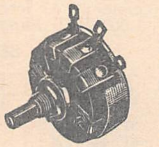


SERIES RA30—3 WATT WIRE WOUND

Meets Mil. Spec.—MIL-R-19A

Linear resistance taper ± 10% tolerance. 1 17/32" dia. Shpg. wt. 7 oz. **TYPE RA30NASD:** ⅜" long standard bushing. Slotted shaft ¼" diameter, ⅞" long FMS. **TYPE RA30LASB:** ½" long locking bushing. Slotted shaft ¼" diameter, ⅝" long FMS.

Stk. No.	Type	Ohms	1-24	25-34	35-49	50-64	65-99	100-249
8F786	RA30NASD6R0A	6	3.00	2.72	2.19	1.80	1.59	1.34
8F787	RA30NASD8R0A	8						
8F788	RA30NASD100A	10						
8F789	RA30NASD150A	15						
8F790	RA30NASD200A	20						
8F791	RA30NASD250A	25						
8F792	RA30NASD350A	35						
8F793	RA30NASD500A	50						
8F794	RA30NASD750A	75						
8F795	RA30NASD101A	100						
8F796	RA30NASD151A	150						
8F797	RA30NASD251A	250						
8F798	RA30NASD351A	350						
8F799	RA30NASD501A	500						
8F800	RA30NASD102A	1K						
8F801	RA30NASD152A	1.5K						
8F802	RA30NASD202A	2K						
8F803	RA30NASD252A	2.5K						
8F804	RA30NASD352A	3.5K						
8F805	RA30NASD502A	5K						
8F806	RA30NASD752A	7.5K						
8F807	RA30NASD103A	10K						
8F808	RA30NASD203A	20K						
8F809	RA30NASD253A	25K						
8F810	RA30LASB6R0A	6	3.00	2.80	2.27	1.88	1.67	1.42
8F811	RA30LASB8R0A	8						
8F812	RA30LASB150A	15						
8F813	RA30LASB200A	20						
8F814	RA30LASB350A	35						
8F815	RA30LASB750A	75						
8F816	RA30LASB101A	100						
8F817	RA30LASB151A	150						
8F818	RA30LASB351A	350						
8F819	RA30LASB102A	1K						
8F820	RA30LASB152A	1.5K						
8F821	RA30LASB202A	2K						
8F822	RA30LASB352A	3.5K						
8F823	RA30LASB502A	5K						
8F824	RA30LASB103A	10K						
8F825	RA30LASB203A	20K						
8F826	RA30LASB253A	25K						



SERIES RV4—2 WATT CARBON

Meets Mil. Spec.—MIL-R-94B

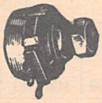
For tolerance see last letter in type number (A) ± 10% (B) ± 20%. Linear resistance taper. 1⅛" dia. Shpg. wt. 7 oz. **TYPE RV4NAYSD** ⅜" long standard bushing. Slotted shaft ¼" dia., ⅞" long FMS. **TYPE RV4LAYSA:** ½" long locking bushing. Slotted shaft ¼" dia., ⅝" long FMS.

Stk. No.	Type	Ohms	1-24	25-34	35-49	50-64	65-99	100-249
8F700	RV4NAYSD101A	100	3.00	2.63	2.10	1.71	1.50	1.25
8F701	RV4NAYSD251A	250						
8F702	RV4NAYSD501A	500						
8F703	RV4NAYSD102A	1K						
8F704	RV4NAYSD252A	2.5K						
8F705	RV4NAYSD502A	5K						
8F706	RV4NAYSD103A	10K						
8F707	RV4NAYSD253A	25K						
8F708	RV4NAYSD503A	50K						
8F709	RV4NAYSD104A	100K						
8F710	RV4NAYSD254A	250K						
8F711	RV4NAYSD504A	500K						
8F712	RV4NAYSD105A	1 mg						
8F713	RV4NAYSD255B	2.5 mg						
8F714	RV4NAYSD505B	5 mg						
8F715	RV4LAYSA101A	100	3.00	2.71	2.18	1.79	1.58	1.33
8F716	RV4LAYSA251A	250						
8F717	RV4LAYSA501A	500						
8F718	RV4LAYSA102A	1K						
8F719	RV4LAYSA252A	2.5K						
8F720	RV4LAYSA502A	5K						
8F721	RV4LAYSA103A	10K						
8F722	RV4LAYSA253A	25K						
8F723	RV4LAYSA503A	50K						
8F724	RV4LAYSA104A	100K						
8F725	RV4LAYSA254A	250K						
8F726	RV4LAYSA504A	500K						
8F727	RV4LAYSA105A	1 mg						
8F728	RV4LAYSA255B	2.5 mg						
8F729	RV4LAYSA505B	5 mg						

RV4 Series continued on following page.

CLAROSTAT PRECISION POTENTIOMETERS

SERIES RV4 2 WATT CARBON POTENTIOMETERS
(Continued from previous page)

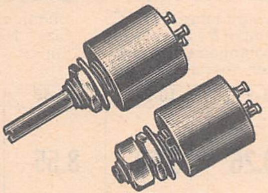


MEET MILITARY SPECIFICATION MIL-R94B

Type RV4LAYSD. Carbon type "pots" with ½ in. locking type bushing. Maximum temperature: 120°C Maximum resistance change due to humidity test: ±10%. Minimum insulation resistance during humidity test: 100 megs. Screw drive slotted operating shaft: ⅞ in. long (from mtg. surface). Last letter in Type Number indicates resistance characteristic and overall resistance tolerance: A—Linear ±10%. B—Linear ±20%. Shipping weight 7 ounces.

Stock No.	Type	Resistance	1-24	25-34	35-49	50-64	65-99	100-up
8F685	RV4LAYSD101A	100 ohms	3.00	2.71	2.18	1.79	1.58	1.33
8F686	RV4LAYSD251A	250 ohms						
8F687	RV4LAYSD501A	500 ohms						
8F688	RV4LAYSD102A	1000 ohms						
8F689	RV4LAYSD252A	2500 ohms						
8F690	RV4LAYSD502A	5000 ohms						
8F691	RV4LAYSD103A	10 K						
8F692	RV4LAYSD253A	25 K						
8F693	RV4LAYSD503A	50 K						
8F694	RV4LAYSD104A	100 K						
8F695	RV4LAYSD254A	250 K						
8F696	RV4LAYSD504A	500 K						
8F697	RV4LAYSD105A	1 Meg.						
8F698	RV4LAYSD255B	2.5 Meg.						
8F699	RV4LAYSD505B	5 Meg.						

SERIES 57M AND SERIES 57EJ ½" SINGLE TURN POTENTIOMETERS



A high performance potentiometer in a ½" dia. housing. Series 57M is rated at 1.5 watts at 40°C. Series 57EJ 2 watts at 70°C and features glass sealed terminals. Shaft length: 57M and 57EJA ½" beyond bushing. Series 57M9 is similar to Series 57M except it has locking bushing mtg. and a $\frac{1}{16}$" shaft. Series 57EJB is similar to Series 57EJA except it has locking bushing mtg. and $\frac{1}{16}$" shaft. Common Specifications: Res. Tol.: ±5% independent. Linearity: ±2%. Mechanical and electrical rotation: 320° ±5%. Dielectric Strength: 1000 VAC. Corrosion resistant housing per QQ-M-151. Centerless grnd. stainless steel shaft. Approx. wt., ½ oz.

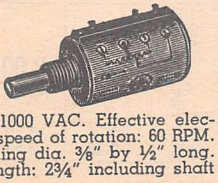
SERIES 57M AND 57M9

Series 57M Stk. No.	Series 57M9 Stk. No.	Res.	1-9	10-24	25-99	100-199	200-499
8F470	8F480	50	9.65	9.17	8.69	8.20	7.72
8F471	8F481	100					
8F472	8F482	200					
8F473	8F483	500					
8F474	8F484	1K					
8F475	8F485	5K					
8F476	8F486	10K					
8F477	8F487	20K					
8F478	8F488	50K					

SERIES 57EJA AND 57EJB

Series 57EJA Stk. No.	Series 57EJB Stk. No.	Res.	1-9	10-24	25-99	100-199	200-499
8F500	8F510	50	10.00	9.50	9.00	8.50	8.00
8F501	8F511	100					
8F502	8F512	200					
8F503	8F513	500					
8F504	8F514	1K					
8F505	8F515	5K					
8F506	8F516	10K					
8F507	8F517	20K					
8F508	8F518	50K					

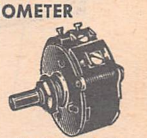
SERIES 59-14JA 10 TURN TIGHT TOLERANCE POTENTIOMETERS



Multi-turn ⅞" diameter potentiometer which offers great winding length and resolution for its diameter. Fits all std. multi-turn read-out indicators. Resolution from 0.029% at 7000 ohms to 0.009% at 100K. ±5% Resistance tol. Linear output. Power dissipation: 4.5 watts at 40°C. Dielectric strength: 1000 VAC. Effective electrical rotation: 3600° (Ten turns). Max. speed of rotation: 60 RPM. ¾" shaft length. .2498" shaft dia. Bushing dia. ⅜" by ½" long. Body dia.: .875" by 1.5" long. Total length: 2¾" including shaft and bushing. Wt. 1.1 oz.

Stk. No.	Res.	1-9	10-24	25-99	100-199	200-499
8F535	500	10.75	10.21	9.68	9.14	8.60
8F536	1K					
8F537	2K					
8F538	5K					
8F539	10K					
8F540	20K					
8F541	30K					
8F542	50K					
8F543	100K					

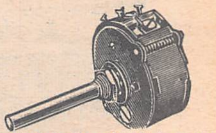
SERIES 42JA SINGLE TURN POTENTIOMETER



All types of applications ranging from ultra critical military systems to ultra dependable industrial equipment. Power Rating: 3 watts at 40°C. Resis. Tolerance: ±5%. Electrical rotation 330°±5°. Mechanical rotation: 360° continuous. Resolution from .35% at 500 ohms to .051% at 100K ohms. Linear output. Max. speed of rotation: 90 RPM. Body dia.: 1¾". Shaft length: ½"; Shaft dia., .249". Approximate weight, 3.2 ounces.

Stk. No.	Res.	1-9	10-24	25-99	100-199	200-499
8F523	50	8.00	7.60	7.20	6.80	6.40
8F524	100	8.00	7.60	7.20	6.80	6.40
8F525	500	8.00	7.60	7.20	6.80	6.40
8F526	1K	8.00	7.60	7.20	6.80	6.40
8F527	2.5K	8.00	7.60	7.20	6.80	6.40
8F528	5K	8.00	7.60	7.20	6.80	6.40
8F529	10K	8.00	7.60	7.20	6.80	6.40
8F530	20K	8.00	7.60	7.20	6.80	6.40
8F531	50K	9.00	8.55	8.10	7.65	7.20
8F532	100K	9.00	8.55	8.10	7.65	7.20

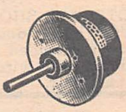
SERIES 42-900 SINGLE TURN POTENTIOMETER



Features an extra tap for greater electrical versatility. Shaft extends thru rear of unit to permit addition of switching and other functions actuated by a single shaft. Tol.: ±5%. Linear output. Rated at 3 watts at 40° C. Tap 50% of applied voltage. ±1 in. tol. Max. speed of rotation: 90 RPM. $1\frac{21}{32}$" dia. Shaft length: 1½". Shaft dia.: .25". Approximate weight, 3.2 oz.

Stk. No.	Res.	1-9	10-24	25-99	100-199	200-499
8F548	50	14.00	13.30	12.60	11.90	11.20
8F549	100	14.00	13.30	12.60	11.90	11.20
8F550	500	14.00	13.30	12.60	11.90	11.20
8F551	1K	14.00	13.30	12.60	11.90	11.20
8F552	2.5K	14.00	13.30	12.60	11.90	11.20
8F553	5K	14.00	13.30	12.60	11.90	11.20
8F554	10K	16.00	15.20	14.40	13.60	12.80
8F555	20K	16.00	15.20	14.40	13.60	12.80
8F556	50K	19.00	18.05	17.10	16.15	15.20
8F557	100K	19.00	18.05	17.10	16.15	15.20

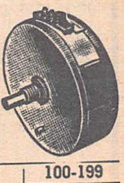
SERIES SC42-970 SIN/COS SINGLE TURN POTENTIOMETER



Used in radar, computer and servomechanisms, or any application requiring two output voltages accurately proportioned to the sine and cosine rotation angle. Total Resistance: 16K, ±10%. Power rating: 2.46 watts at 40°C. 360° cont. rotation. Resolution: 0.14% of max. peak to peak voltage. Max. shaft speed: 30 RPM. Shaft length: $1\frac{9}{16}$", dia.: .2498". Body dia.: $2\frac{1}{16}$".

Stk. No.	1-9	10-24	25-99	100-199	200-499
8F568	45.00	42.75	40.50	38.25	36.00

SERIES 54-48JA VARI/PHASE SINGLE TURN POTENTIOMETERS



Permits external phasing of electrical rotation to mechanical rotation. Tol.: ±5%. Linear output. Power dissipation: 6.1 watts at 40°C. Electrical rotation: 356°. Mechanical rotation: 360°. Max. speed of rotation: 60 RPM. Shaft length: ½". Shaft dia.: .2498". Body dia.: 3". Approximate weight, 4.5 oz.

Stk. No.	Res.	1-9	10-24	25-99	100-199
8F561	1K	26.50	25.18	23.85	22.53
8F562	10K	26.50	25.18	23.85	22.53
8F563	50K	26.50	25.18	23.85	22.53
8F564	100K	26.50	25.18	23.85	22.53
8F565	250K	31.00	29.45	27.90	26.35

BOURNS POTENTIOMETERS

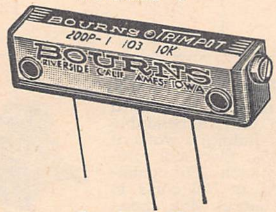
SERIES 200 AND 215

BOURNS TRIMPOT
200L-1-103 10K
BOURNS
RIVERSIDE, CALIF. AMES, IOWA

Terminals "L"

BOURNS TRIMPOT
200S-1 103 10K
BOURNS
RIVERSIDE CALIF AMES IOWA

Terminals "S"

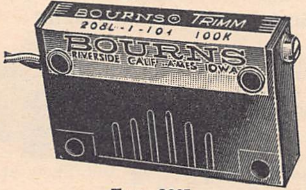


Terminals "P"

SERIES 207 AND 208

BOURNS TRIMPOT
2071-1-503 50K
BOURNS
RIVERSIDE CALIF AMES IOWA

Type 207L



Type 208L

SERIES 220

220L-1-103 10K
BOURNS
TRIMPOT

Type 220L

220W-1-103 10K
BOURNS
TRIMPOT

Type 220W

NOTE: ALL SHOWN ACTUAL SIZE. Type suffix letter denotes terminal configuration: L-stranded insulated leads. W-uninsulated solid wires. S-solder lugs. P-printed circuit pins.

BOURNS POTENTIOMETERS FOR PANEL MOUNTING

The following Bourns Potentiometer Series are available for panel mounting, and can be supplied by Newark on Special Order.

200 220 236 272 3010
207 224 260 273 3011
208 235 271 274 3051
215

When Ordering, the Suffix Letter "M" should be added to Part No. desired. For example:

200L-1-200M

The prices for panel mounted units below, should be added to the resale price of corresponding standard control model shown on this page.

1-9	10-24	25-49	50-99	100-249	250-500
.81	.75	.68	.64	.60	.57

MODEL 200 GENERAL PURPOSE WIREWOUND TRIMPOT®

Power rating: 0.25 watt at 70°C. High usable potentiometer range of 98%. Ruggedly constructed and subminiature in size, will stand severe shock, vibration, and acceleration. Self-locking shaft, precision wirewound resistance elements, and 25-turn screwdriver adjustment. Low residual resistance at either end. 0.5 ohms or .7% whichever is greater, except * 5%. 3 terminal configurations. 10% tolerance. Size: 5⁄16"Hx¼"Wx1¼"L. Approx. Shpg. wt., 1⁄10 oz.

Type 200L	Type 200S	Type 200P							250-
Stk. No.	Stk. No.	Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	500
12F500	12F509	12F518	10	4.86	4.50	4.05	3.85	3.60	3.42
12F690	12F693	12F326	20						
12F501	12F510	12F519	50						
12F502	12F511	12F520	100						
12F601	12F694	12F696	200						
12F503	12F512	12F521	500						
12F504	12F513	12F522	1K						
12F692	12F695	12F697	2K						
12F505	12F514	12F523	5K						
12F506	12F515	12F524	10K						
12F507	12F516	12F525	20K	6.48	6.00	5.40	5.13	4.80	4.56
12F508	12F517	12F526	50K	7.56	7.00	6.30	5.98	5.60	5.32
12F730	....	....	100K*	9.18	8.50	7.65	7.27	6.80	6.46

MODEL 207L HI-R® WIREWOUND TRIMPOT®

High power (2.0 watts), high temp. (175°C) precision wirewound Trimpot®. Silverweld® termination, making potentiometers virtually indestructible under thermal or mechanical stress. 25-turn screwdriver adj. Size: 113⁄16"Hx9⁄32"Wx1¼"L. Shpg. Weight, 3⁄10 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F723	100	10.26	9.50	8.55	8.12	7.60	7.22
12F724	200						
12F725	500						
12F702	1K						
12F703	10K						
12F704	20K						
12F705	50K						
12F706	100K	11.88	11.00	9.90	9.40	8.80	8.36

MODEL 208L HI-R® TRIMR®

25-turn high power (2.0 watts), high temp. (175°C) precision Trimr®. Tolerance is ±10%. Terminals have teflon insulated leads. 7 strands/36 AWG. Silverweld® termination alloys. Size. 13⁄16x9⁄32x1¼". Shpg. wt., 0.3 oz.

No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F744	100K	11.34	10.50	9.45	8.98	8.40	7.98
12F745	150K	11.34	10.50	9.45	8.98	8.40	7.98
12F746	200K	12.96	12.00	10.80	10.26	9.60	9.12

MODEL 215 GENERAL PURPOSE CARBON TRIMPOT®

A high temperature (125°C), high power (0.25 watts), carbon Trimpot®. 22-turn screwdriver adjustment with a positive action idling post assembly. Size: 5⁄16"Hx ¼"Wx1¼"L. Shipping weight approximately 1⁄10 oz.

Type 215L	Type 215S	Type 215P						100-	250-
Stk. No.	Stk. No.	Stk. No.	Ohms	1-9	10-24	25-49	50-99	249	500
12F527	12F533	12F539	20K	4.86	4.50	4.05	3.85	3.60	3.42
12F528	12F534	12F540	50K						
12F529	12F535	12F541	100K						
12F530	12F536	12F542	200K						
12F531	12F537	12F543	500K						
12F327	12F328	12F329	750K						
12F532	12F538	12F544	1 meg						

MODEL 220 SUB-MINIATURE WIREWOUND TRIMPOT®

Available in two terminal configurations. Features include humidity-proof construction (meets MIL-STD-202A) and high power rating (1.0 watt at 70°C). Microminiature, designed for use with printed circuit boards and modular-type assemblies. Internal connections are welded. Size: .315"Hx.17"W.x1.0"L. Sh. wt., .06 oz.

Type 220L	Type 220W						100-	250-
Stk. No.	Stk. No.	Ohms	1-9	10-24	25-49	50-99	249	500
12F727	12F545	100	8.64	8.00	7.20	6.84	6.40	6.08
12F728	12F707	200						
12F709	12F546	500						
12F710	12F547	1K						
12F330	12F708	2K						
12F711	12F548	5K						
12F712	12F549	10K						
12F713	12F550	20K	10.26	9.50	8.55	8.12	7.60	7.22
12F729	12F726	30K	10.26	9.50	8.55	8.12	7.60	7.22

MOUNTING BRACKETS

For 1" mounting centers.

Stk. No.	Type	Description	1-24	25-99
12F682	H-11E	End mounting	.20	.15
12F683	H-12S	Side mounting	.20	.15
12F684	H-13P	Panel clip-in	.20	.15
For ¾" mounting centers.				
12F677	H21-E	End mounting	.20	.15
12F678	H22-S	Side mounting	.20	.15
For ½" square units.				
12F686	H-25	Stack mtg. strap	.05	.04
12F687	H-26S	Side mounting	.20	.15

SCREWDRIVER

Type H-90. Screwdriver with clip for use with all Bourns screwdriver potentiometers.

12F679. 1-24, each.......................................**.35**
25-99, each.......................................**.30**

SPECIAL SCREWS AND ROD STOCK

Stk. No.	Type	Description	Lgth.	NET
12F680	H-01	2-56 rnd. head	1½"	.02
12F681	H-02	2-56 rod stock	12"	.80
12F685	H-03	2-56 hex nut	......	.03

POTENTIOMETERS BOURNS

MODEL 224 HIGH TEMPERATURE HUMIDITY PROOF TRIMPOT®

The Model 224 is available in three terminal configurations. It is designed for military applications requiring high reliability plus miniature size. Meets all applicable requirements of MIL-STD-202A. Outstanding features include: smaller size 0.190" wide, higher power 1 watt at 70°C, 0.5 watt at 125°C, expanded temperature range: —65° to +175°C. Size: .32"Hx.19"Wx1¼"L. Shpg. wt., .2 oz.

Type 224L Stk. No.	Type 224S Stk. No.	Type 224P Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F733	12F736	12F739	10	7.02	6.50	5.85	5.56	5.20	4.94
12F734	12F737	12F740	20						
12F735	12F738	12F741	50						
12F551	12F556	12F561	100						
12F716	12F334	12F720	200						
12F552	12F557	12F562	500						
12F553	12F558	12F563	1K						
12F717	12F335	12F336	2K						
12F554	12F559	12F564	5K						
12F555	12F560	12F565	10K						
12F718	12F714	12F721	20K	8.64	8.00	7.20	6.84	6.40	6.08
12F719	12F715	12F722	50K	9.18	8.50	7.65	7.27	6.80	6.46
12F742	12F743	12F337	100K	11.34	10.50	9.45	8.98	8.40	7.98

MODEL 235 HUMIDITY PROOF CARBON TRIMPOT®

Military standard humidity proof carbon potentiometers. Sealed against humidity, liquids, and potting compounds to meet MIL-STD-202A and MIL-E-5272A spec. High operating temperature (125°C). Power rating: 0.25 W at 50°C. Tolerance: ±20%. Three terminal config.; L-Stranded Ins. Leads; S-Solder Lugs; P-Printed Cir. Pins. Size: 1.340"x.3"x.360". Wt. .2 oz.

Type 235L	Type 235S	Type 235P	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F430	12F436	12F442	20K	7.02	6.50	5.85	5.56	5.20	4.94
12F431	12F437	12F443	50K						
12F432	12F438	12F444	100K						
12F433	12F439	12F445	200K						
12F434	12F440	12F446	500K						
12F435	12F441	12F447	1 Meg.						

MODEL 236 HUMIDITY-PROOF WIREWOUND TRIMPOT®

Humidity-proof, high power (0.8 watts at 70°C), wirewound Trimpot®. Available in three terminal configurations. It operates to 135°C and features Silverweld® termination. It meets and exceeds MIL-E-5272A and MIL-STD-202A specifications. Size: 36"Hx.30"Wx1.34"L. Wt. .2 oz.

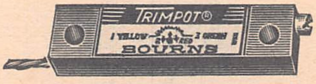
Type 236L Stk. No.	Type 236S Stk. No.	Type 236P Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F566	12F578	12F590	10	7.02	6.50	5.85	5.56	5.20	4.94
12F567	12F579	12F591	20						
12F568	12F580	12F592	50						
12F569	12F581	12F593	100						
12F570	12F582	12F594	200						
12F571	12F583	12F595	500						
12F572	12F584	12F596	1K						
12F573	12F585	12F597	2K						
12F574	12F586	12F598	5K						
12F575	12F587	12F599	10K						
12F576	12F588	12F600	20K	8.64	8.00	7.20	6.84	6.40	6.08
12F577	12F589	12F601	50K	9.18	8.50	7.65	7.27	6.80	6.46
12F731			100K	11.34	10.50	9.45	8.98	8.40	7.98

MODEL 260 HIGH TEMPERATURE WIREWOUND TRIMPOT®

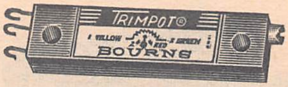
High temperature (175°C), high power (1.0 watt at 70°C). For applications requiring continuous operation at 125°C to 175°C. Silverweld® element termination. 25-turn screwdriver adjustment. Idling wiper assembly. Available in three terminal configurations. Ceramic card provides excellent stability under extreme temperatures. Size: .36"Hx.30"Wx.34"L. Wt. .2 oz.

Type 260L Stk. No.	Type 260S Stk. No.	Type 260P Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F602	12F614	12F626	10	5.94	5.50	4.95	4.70	4.40	4.18
12F603	12F615	12F627	20						
12F604	12F616	12F628	50						
12F605	12F617	12F629	100						
12F606	12F618	12F630	200						
12F607	12F619	12F631	500						
12F608	12F620	12F632	1K						
12F609	12F621	12F633	2K						
12F610	12F622	12F634	5K						
12F611	12F623	12F635	10K						
12F612	12F624	12F636	20K	7.56	7.00	6.30	5.98	5.60	5.32
12F613	12F625	12F637	50K	8.10	7.50	6.75	6.41	6.00	5.70
12F732			100K	9.72	9.00	8.10	7.69	7.20	6.84

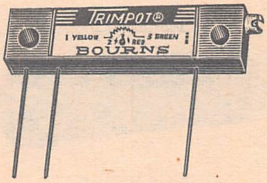
SERIES 224



Type 224D

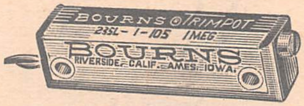


Type 224S

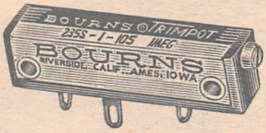


Type 224P

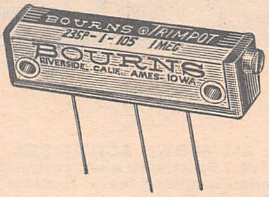
SERIES 235, 236, 260, 271, and 272



Mounting L



Mounting S



Mounting P

NOTE: ALL SHOWN ACTUAL SIZE. Type suffix letter denotes terminal configuration: L-stranded insulated leads. W-uninsulated solid wires. S-solder lugs. P-printed circuit pins.

MODELS 271-273-275 COMMERCIAL WIREWOUND TRIMIT®

Subminiature size. 25-turn screwdriver adjustment and self-locking shaft. Power rating: 0.25 watts and an operating range of —55°C to +85°C. Terminal types: 271—Stranded insulated leads, 273—Solder lugs, 275—Printed circuit pins. Size: 5⁄16"Hx¼"Wx 1¼"L. Approx. shpg. wt., 1⁄10 oz.

271 No.	273 No.	275 No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F638	12F645	12F652	100	3.18	2.95	2.65	2.52	2.36	2.25
12F639	12F646	12F653	200						
12F640	12F647	12F654	500						
12F641	12F648	12F655	1K						
12F642	12F649	12F656	2K						
12F643	12F650	12F657	5K						
12F644	12F651	12F658	10K						

MODELS 272-274-276 COMMERCIAL CARBON TRIMIT®

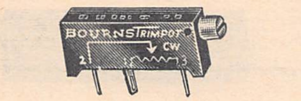
272—Flexible leads, 274—Solder lugs, 276—Printed circuit pins. Subminiature size, high-resistance carbon element power rating 0.2 watts, operating temperature range: —55°C to +85°C, 25-turn screwdriver adjustment. Size: 5⁄16"Hx¼"Wx1¼"L.

272 No.	274 No.	276 No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F659	12F665	12F671	20K	3.78	3.50	3.15	2.99	2.80	2.66
12F660	12F666	12F672	50K						
12F661	12F667	12F673	100K						
12F662	12F668	12F674	200K						
12F663	12F669	12F675	500K						
12F664	12F670	12F676	1 meg						

BOURNS POTENTIOMETERS

NEWARK SERVICE IS FAST AND RELIABLE

Type 3000P



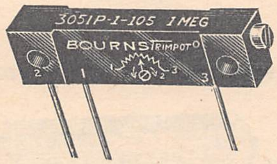
SERIES 3010, 3011 and 3051

3051L-1-105 1MEG
BOURNS TRIMPOT
YELLOW
GREEN
RED

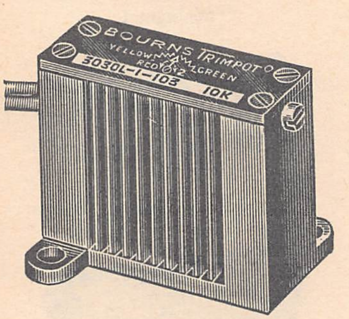
Mounting L

3051S-1-105 1MEG
BOURNS TRIMPOT
YELLOW
GREEN
RED

Mounting S



Mounting P



Type 3030L

NOTE: ALL SHOWN ACTUAL SIZE. Type suffix letter denotes terminal configuration: L-stranded insulated leads. S-solder lugs. P-printed circuit pins.

Newark Can Supply All
Bourns Products.
As New Items are Added
to
The Bourns Line,
They Will Be Available
Through Newark.

MODEL 3000P MICRO-MINIATURE WIREWOUND TRIMPOT®

Micro-miniature humidity proof wirewound potentiometer. Small size, rectangular configuration. Ideal for printed circuit boards. 15 turn screwdriver adjustment. Power dissip. 0.5 watt at 70°C. Temp. Range: —65°C to +175°. Tolerance ±10%. Exclusive Silverweld® termination. Insulation Resis. 1000 Megohm min. Size: ¾x5⁄32x5⁄16". Wt., .06 oz. Printed circuit pins.

Stock No.	Ohms	Nom.Res.%	1-9	10-24	25-49	50-99	100-249	250-500
12F490	50	1.7	9.72	9.00	8.10	7.69	7.20	6.84
12F491	100	1.3						
12F492	200	1.1						
12F493	500	0.8						
12F494	1000	0.7						
12F495	2K	0.6						
12F496	5K	0.4						
12F497	10K	0.38						
12F498	20K	0.29	10.80	10.00	9.00	8.55	8.00	7.60

MODEL 3010 HUMIDITY PROOF WIREWOUND TRIMPOT®

Military standard humidity proof wirewound potentiometer. High temperature all plastic case for operation to 175°C. Sealed to meet MIL-STD-202A and MIL-E-5272A specifications. High power dissipation 1.0 watt at 70°C. Load Life: 1000 hours per MIL-R-19A with resistance shift 2% maximum. Resistance tolerance ±10% or better. End settings: 0-0.2% from 10-1000 ohms and 0-0.1% for 2K to 50K, 100K-5%. Mechanical adjustment 25 ± 2 turns. New Silverweld® termination alloys with multiple resistance wires. Sand and dust proof, shock and vibration stability. Insulating resistance 1000 Megohms minimum. Two terminals configuration. L-Stranded Teflon Ins. Leads; P-Printed Cir. Pins. Size: 1¼"x 5⁄16"x.28". Wt. 0.1 oz.

Type 3010L Stk. No.	Type 3010P Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F448	12F462	10	7.02	6.50	5.85	5.56	5.20	4.94
12F449	12F463	20						
12F450	12F464	50						
12F451	12F465	100						
12F452	12F466	200						
12F453	12F467	500						
12F454	12F468	1000						
12F455	12F469	2000						
12F456	12F470	5000						
12F457	12F471	10K						
12F458	12F472	20K	8.64	8.00	7.20	6.84	6.40	6.08
12F459	12F473	25K	8.64	8.00	7.20	6.84	6.40	6.08
12F460	12F474	50K	9.18	8.50	7.65	7.27	6.80	6.46
12F461	12F475	100K	11.34	10.50	9.45	8.98	8.40	7.98

MODEL 3011 HUMIDITY PROOF CARBON TRIMPOT®

Small size military standard carbon potentiometers. Outstanding humidity performance and high stability. All plastic, high temperature case to meet high operating temperature up to 150°C. Self-locking adjustment screw with wiper assembly idles. Power rating 0.25 Watt at 50°C. 2 terminal config., L-Stranded Ins. Leads; P-Printed Cir. Pins. 1¼"x5⁄16"x0.28".

Type 3011L Stk. No.	Type 3011P Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F476	12F483	20K	7.02	6.50	5.85	5.56	5.20	4.94
12F477	12F484	50K						
12F478	12F485	100K						
12F479	12F486	200K						
12F480	12F487	500K						
12F481	12F488	750K						
12F482	12F489	1 Meg.						

MODEL 3030L HIGH-POWER TRIMPOT®

High power wirewound potentiometer. Especially designed for power supply and heavy duty circuit applications. Metal case with two mounting holes provides convenient chassis mounting. Power Rate: 15 watt at 25°C. Operating temperature: —65° C to 265° C. 25-turn screwdriver adjustment. Silverweld termination. Wiper assembly idles. Excellent shock, vibration and acceleration stability. Stranded insulated leads. Size: 1.27x1.07x0.52". Wt. 0.9 oz.

Stk. No.	Ohms	Nom. Res.%	1-9	10-24	25-49	50-99	100-249	250-500
12F300	10	4.60	12.96	12.00	10.80	10.26	9.60	9.12
12F301	20	3.60						
12F302	50	2.90						
12F303	100	2.30						
12F304	200	1.80						
12F305	500	1.40						
12F306	1000	1.30						
12F307	2K	1.00						
12F308	5K	0.70						
12F309	10K	0.60						

MODELS 3051L-S-P HIGH TEMPERATURE HUMIDITY-PROOF TRIMPOT®

A carbon potentiometer which offers exceptional electrical stability of 150°C. Available in three terminal configurations. Sealed against humidity and meets MIL spec. STD-202A. 22-turn screwdriver adjustment. Expanded operating temp. (—65°C to 150°C) with higher power (0.25 watt at 50°C). Size: 1¼x5⁄16x3⁄16". Approx. Shpg. wt., 0.1 oz.

Type 3051L Stk. No.	Type 3051S Stk. No.	Type 3051P Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F768	12F774	12F780	20K	7.02	6.50	5.85	5.56	5.20	4.94
12F769	12F775	12F781	50K						
12F770	12F776	12F782	100K						
12F771	12F777	12F783	200K						
12F772	12F778	12F784	500K						
12F331	12F332	12F333	750K						
12F773	12F779	12F785	1 Meg						

POTENTIOMETERS BOURNS

MODELS 3067P-3067S E-Z-TRIM® WIREWOUND COMMERCIAL POENTIOMETERS

Sub miniature potentiometer designed for commercial use. Features a 15-turn screwdriver adjustment and self-locking shaft for stable electrical settings. Meets steady state humidity MIL specs STD-202A but is a non-sealed unit. Wiper assembly idles at limits of travel to prevent damage. Operating temp. (—55° to 85°C); Power rating, 0.5 watt (20°C). Size: 1x23/64x9/32". Av. Shpg. Wt., 0.1 oz.

Type 3067P Stk. No.	Type 3067S Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F400	12F408	100	1.65	1.53	1.37	1.31	1.22	1.16
12F401	12F409	200						
12F402	12F410	500						
12F403	12F411	1K						
12F404	12F412	2K						
12F405	12F413	5K						
12F406	12F414	10K						
12F407	12F415	20K						

MODELS 3068P-3068S E-Z-TRIM® CARBON POTENTIOMETERS

Same as Model 3067 but features Bourns exclusive Resiston® carbon resistance element, consisting of a high temp. carbon deposited on an inert and moisture-proof base. This combination provides temp. and moisture stability unequalled by other deposited carbon potentiometers. Power rating: 0.2 watt (20°C). Size: 1x23/64x9/32". Approx. shpg. wt., 0.1 oz.

Type 3068P Stk. No.	Type 3068S Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F416	12F423	20K	1.65	1.53	1.37	1.31	1.22	1.16
12F417	12F424	50K						
12F418	12F425	100K						
12F419	12F426	200K						
12F420	12F427	500K						
12F421	12F428	750K						
12F422	12F429	1 Meg						

MODELS 3250-L, P, W WIREWOUND POTENTIOMETERS

Trimpto® offers new design in pots. Temp. rated to 175°C. Power diss. 1 watt at 70°C. Able to withstand severe humidity conditions. Tol. ±5%. Size: Type L—½"x½"x3/16"; Types P and W—½"x½"x7/32". Can be mounted directly on panel. Shpg. Wt., 0.05 oz.

Type 3250-L. 1 Watt Stranded Ins. Leads

Stk. No.	Res.	1-9	10-24	25-49	50-99	100-249	250-500
12F750	100	6.71	6.22	5.60	5.32	4.97	4.72
12F751	200						
12F752	500						
12F753	1000						
12F754	2000						
12F755	5000						
12F756	10K						
12F757	20K	7.56	7.00	6.30	5.98	5.60	5.32
12F338	25K	7.56	7.00	6.30	5.98	5.60	5.32
12F758	50K	10.01	9.27	8.34	7.92	7.41	7.04

Type 3250P. 1 Watt Printed Circuit Pin Term.

Stk. No.	Res.	1-9	10-24	25-49	50-99	100-249	250-500
12F759	100	7.23	6.69	6.02	5.72	5.35	5.08
12F760	200						
12F761	500						
12F762	1000						
12F763	2000						
12F764	5000						
12F765	10K						
12F766	20K	7.97	7.38	6.64	6.31	5.90	5.61
12F339	25K	7.97	7.38	6.64	6.31	5.90	5.61
12F767	50K	10.53	9.75	8.78	8.34	7.80	7.41

Type 3250-W. Printed Circuit Pin Term.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F340	100	7.23	6.69	6.02	5.72	5.35	5.08
12F341	200						
12F342	500						
12F343	1000						
12F344	2000						

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F345	5000	7.23	6.69	6.02	5.72	5.35	5.08
12F346	10K	7.23	6.69	6.02	5.72	5.35	5.08
12F347	20K	7.97	7.38	6.64	6.31	5.90	5.61
12F348	25K	7.97	7.38	6.64	6.31	5.90	5.61
12F349	50K	10.53	9.75	8.78	8.34	7.80	7.41

● *NEW* MODELS 3251L, P, W HIGH TEMPERATURE, HUMIDITY PROOF CARBON POTENTIOMETER

High temperature carbon potentiometer, for use up to 150°C. Dissipation, ½ watt at 50°C. Meets MIL-STD-202 and MIL-E-5272. Resistance tolerance: ±20%. Size: ½"x½"x7/32". "L" size ½"x½"x3/16" Shpg. wt., .1 oz.

Type 3251L Stk. No.	Type 3251P Stk. No.	Type 3251W Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F350	12F357	12F364	20K	7.83	7.25	6.53	6.19	5.80	5.51
12F351	12F358	12F365	50K						
12F352	12F359	12F366	100K						
12F353	12F360	12F367	200K						
12F354	12F361	12F368	500K						
12F355	12F362	12F369	750K						
12F356	12F363	12F370	1 meg.						

● *NEW* MODELS 3280L, P, W, MICRO-MINIATURE WIREWOUND POTENTIOMETERS

High power rating (1.0 watt at 70°C, 0.5 watt at 125°C). 25 turn adjustment. Operating range: —65 to +175°C. Resistance tolerance: ±5%. Meets the following Mil Specs: humidity, MIL-STD-202B, method 106; vibration, exceeds MIL-STD-202B, method 202, 100G; sand and dust, MIL-E-5272C, procedure 1; salt spray, MIL-STD-202B, method 101A; fungus, materials meet MIL-E-5272C; load life, 1000 hrs. per MIL-R-19A; dielectric strength, MIL-STD-202B, method 301. Mechanical life, 200 cycles without discontinuity.

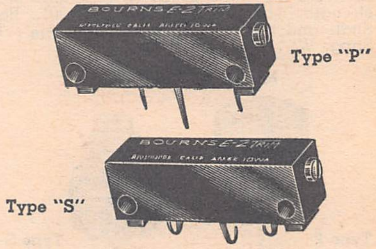
Type 3280L Stk. No.	Type 3280P Stk. No.	Type 3280W Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F371	12F380	12F389	100	7.56	7.00	6.30	5.98	5.60	5.32
12F372	12F381	12F390	200						
12F373	12F382	12F391	500						
12F374	12F383	12F392	1000						
12F375	12F384	12F393	2000						
12F376	12F385	12F394	5000						
12F377	12F386	12F395	10K						
12F378	12F387	12F396	20K	9.18	8.50	7.65	7.27	6.80	6.46
12F379	12F388	12F397	50K	9.72	9.00	8.10	7.69	7.20	6.84

● *NEW* MODELS 3300P, S SINGLE TURN MICRO-MINIATURE POTENTIOMETERS

Silverweld® termination alloys with multiple resistance wires. Meets MIL-STD-202 and MIL-E-5272. Tol.: ±5%. Rotation: 300° nom. Rated at ½ watt, 70°C ambient. Temp. range: —65°C to +175°C. Type 3300S has solder terminals and panel mount bushing. Shpg. wt., .02 oz.

Ohms	Type 3300P Stk. No.	1-9	10-24	25-49	50-99	100-249	250-500	Type 3300S Stk. No.	1-9	10-24	25-49	50-99	100-249	250-500
50	12F1400	5.94	5.50	4.95	4.70	4.40	4.18	12F1409	8.91	8.25	7.43	7.05	6.60	6.27
100	1241401	5.94	5.50	4.95	4.70	4.40	4.18	12F1410	8.91	8.25	7.43	7.05	6.60	6.27
200	12F1402	5.94	5.50	4.95	4.70	4.40	4.18	12F1411	8.91	8.25	7.43	7.05	6.60	6.27
500	12F1403	5.94	5.50	4.95	4.70	4.40	4.18	12F1412	8.91	8.25	7.43	7.05	6.60	6.27
1000	12F1404	5.94	5.50	4.95	4.70	4.40	4.18	12F1413	8.91	8.25	7.43	7.05	6.60	6.27
2000	12F1405	5.94	5.50	4.95	4.70	4.40	4.18	12F1414	8.91	8.25	7.43	7.05	6.60	6.27
5000	12F1406	5.94	5.50	4.95	4.70	4.40	4.18	12F1415	8.91	8.25	7.43	7.05	6.60	6.27
10K	12F1407	5.94	5.50	4.95	4.70	4.40	4.18	12F1416	8.91	8.25	7.43	7.05	6.60	6.27
20K	12F1408	7.56	7.00	6.30	5.98	5.60	5.32	12F1417	10.53	9.75	8.78	8.33	7.80	7.41

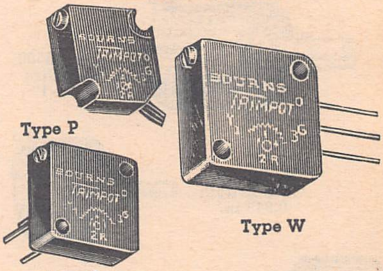
SERIES 3067 AND 3068



Type "P"

Type "S"

SERIES 3250 AND 3251



Type P

Type W

Type L

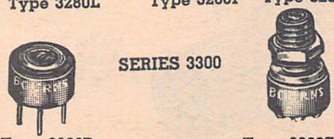
SERIES 3280

Type 3280L

Type 3280P

Type 3280W

SERIES 3300



Type 3300P

Type 3300S

NOTE: ALL UNITS SHOWN ACTUAL SIZE. Type suffix letter denotes terminal configuration: L-stranded insulated leads. P,W-printed circuit pins. S-solder lugs.

Newark Can Supply All Bourns Potentiometers

BOURNS POTENTIOMETERS

NEWARK CAN SUPPLY ALL
BOURNS POTENTIOMETERS

SERIES 3367 SUBMINIATURE SINGLE TURN POTENTIOMETERS

Wirewound potentiometer. Silverweld® termination alloys with multiple resistance wires. Series 3367S—Solder lugs; Series 3367P—Printed Circuit Pins. Power ratings: 0.5 watt at 70°C; 0 watt at 105°C. Operating temp. —55° to 105°C. Size: ½" dia. x .210".

MODEL 3367P—PRINTED CIRCUIT MOUNTING TYPE

Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F310	3367P-1-101	100	**4.86**	**4.50**	**4.05**	**3.85**	**3.60**	**3.42**
12F311	3367P-1-201	200	**4.86**	**4.50**	**4.05**	**3.85**	**3.60**	**3.42**
12F312	3367P-1-501	500	**4.86**	**4.50**	**4.05**	**3.85**	**3.60**	**3.42**
12F313	3367P-1-102	1K	**4.86**	**4.50**	**4.05**	**3.85**	**3.60**	**3.42**
12F314	3367P-1-202	2K	**4.86**	**4.50**	**4.05**	**3.85**	**3.60**	**3.42**
12F315	3367P-1-502	5K	**4.86**	**4.50**	**4.05**	**3.85**	**3.60**	**3.42**
12F316	3367P-1-103	10K	**4.86**	**4.50**	**4.05**	**3.85**	**3.60**	**3.42**
12F317	3367P-1-203	20K	**4.86**	**4.50**	**4.05**	**3.85**	**3.60**	**3.42**

MODEL 3367S—PANEL MOUNT TYPE

Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F318	3367S-1-101	100	**5.67**	**5.25**	**4.73**	**4.48**	**4.20**	**3.99**
12F319	3367S-1-201	200	**5.67**	**5.25**	**4.73**	**4.48**	**4.20**	**3.99**
12F320	3367S-1-501	500	**5.67**	**5.25**	**4.73**	**4.48**	**4.20**	**3.99**
12F321	3367S-1-102	1K	**5.67**	**5.25**	**4.73**	**4.48**	**4.20**	**3.99**
12F322	3367S-1-202	2K	**5.67**	**5.25**	**4.73**	**4.48**	**4.20**	**3.99**
12F323	3367S-1-502	5K	**5.67**	**5.25**	**4.73**	**4.48**	**4.20**	**3.99**
12F324	3367S-1-103	10K	**5.67**	**5.25**	**4.73**	**4.48**	**4.20**	**3.99**
12F325	3367S-1-203	20K	**5.67**	**5.25**	**4.73**	**4.48**	**4.20**	**3.99**

● *NEW* MODELS 3368P AND 3368S SINGLE TURN CARBON POTENTIOMETERS

Stable, infinite resolution Resiston® element. Tolerance: ±20%. Operating range: —65°C, to +105°C. Power rating: ¼ watt at 50°C. Meets the following MIL Specs: sand and dust, MIL-E-5272C, Procedure 1; salt spray, MIL-STD-202B, Method 101A; fungus, MIL-E-5272C; load life, MIL-R-19A, resistance shift 10% mox.; dielectric strength, MIL-STD-202B, Method 301. Mechanical adjustment 285°. Mechanical life, 200 cycles. Shpg. Wt. 0.05 oz.

MODEL 3368P—PRINTED CIRCUIT MOUNTING TYPE

Stock No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F1418	20K	**5.94**	5.50	4.95	4.70	4.40	4.18
12F1419	50K	**5.94**	5.50	4.95	4.70	4.40	4.18
12F1420	100K	**5.94**	5.50	4.95	4.70	4.40	4.18
12F1421	200K	**5.94**	5.50	4.95	4.70	4.40	4.18
12F1422	500K	**5.94**	5.50	4.95	4.70	4.40	4.18
12F1423	750K	**5.94**	5.50	4.95	4.70	4.40	4.18
12F1424	1 meg.	**5.94**	5.50	4.95	4.70	4.40	4.18

MODEL 3368S—PANEL MOUNTING TYPE

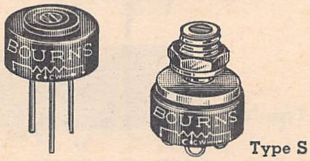
Stock No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F1425	20K	**6.75**	6.25	5.63	5.34	5.00	4.75
12F1426	50K	**6.75**	6.25	5.63	5.34	5.00	4.75
12F1427	100K	**6.75**	6.25	5.63	5.34	5.00	4.75
12F1428	200K	**6.75**	6.25	5.63	5.34	5.00	4.75
12F1429	500K	**6.75**	6.25	5.63	5.34	5.00	4.75
12F1430	750K	**6.75**	6.25	5.63	5.34	5.00	4.75
12F1431	1 meg.	**6.75**	6.25	5.63	5.34	5.00	4.75

TYPE 3500S-1, 2—10 TURN ⅞" DIAMETER BUSHING MOUNT POTENTIOMETER

Power rating: 2 watts at 70°C. Operating range: —65°C to +125°C. Silverweld® multiple wire termination. Tolerance: ±3%. Rotation: 3600° (+10/—0°). Linearity (independent); ±0.25%. Meets the following MIL Specs: humidity, MIL-STD-202, Method 103 (steady state); vibration, MIL-STD-202, Method 204, except 20G; shock, MIL-STD-202B, Method 202, 100G; sand and dust, MIL-E-5272C; fungus, materials meet MIL-E-5272C; load life, 1000 hrs. per MIL-R-19A, resistance shift 2% max.; dielectric strength, MIL-STD-202B, Method 301. Body size: ⅞ dia.x1". Shaft and bushing: Type 3500S-1, 11/16"; Type 3500S-2, 13/16". Shpg. Wt. 1 oz.

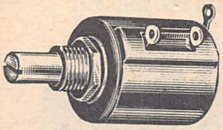
3500S-1 Stk. No.	3500S-2 Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-500
12F790	**12F1432**	500	**11.99**	**11.39**	**10.79**	**9.59**	**8.99**
12F791	**12F1433**	1000	**11.99**	**11.39**	**10.79**	**9.59**	**8.99**
12F792	**12F1434**	2000	**11.99**	**11.39**	**10.79**	**9.59**	**8.99**
12F793	**12F1435**	5000	**11.99**	**11.39**	**10.79**	**9.59**	**8.99**
12F794	**12F1436**	10K	**11.99**	**11.39**	**10.79**	**9.59**	**8.99**
12F795	**12F1437**	20K	**11.99**	**11.39**	**10.79**	**9.59**	**8.99**
12F796	**12F1438**	50K	**11.99**	**11.39**	**10.79**	**9.59**	**8.99**
12F797	**12F1439**	100K	**11.99**	**11.39**	**10.79**	**9.59**	**8.99**
12F798	**12F1440**	125K	**11.99**	**11.39**	**10.79**	**9.59**	**8.99**

Models 3367 and 3368

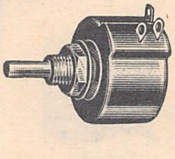


Type P

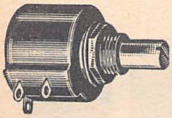
Type S



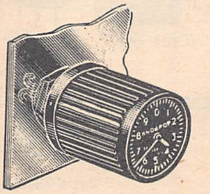
Model 3500
Body Size
⅞"Dx1"



Model 3510
Case Length
0.549 in.



Model 3520
Case Length
0.678 in.



Model 3600
Body Size
¾"Dx1"

Note: Figures are not shown actual size. Type suffix letter denotes terminal configuration: S-solder lugs. P-printed circuit pins.

● *NEW* MODEL 3510S BUSHING MOUNT 3 TURN POTENTIOMETERS

Silverweld® multiwire termination. Power rating: 1.0 watt at 70°C. Operating range: —65 to +125°C. Tolerance: ±3%. Rotation: 1080° (+10/-0°). Linearity (independent): ±.30. Meets following Mil Specs: humidity, MIL-STD-202B, Method 103 (steady state); 100 meg. min. res. after removal from chamber; vibration, MIL-STD-202B, Method 204, 20G; shock, MIL-STD-202B, Method 202, 100G; sand and dust, MIL-E-5272C; fungus, materials meet MIL-E-5272C; load life, 1000 hrs. per MIL-R-19A, resistance shift 2% max.; dielectric strength, MIL-STD-202B, Method 301. Mechanical life, 100,000 cycles 0.8 oz.

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-500
12F1441	200	**14.99**	**14.24**	**13.49**	**12.74**	**11.99**
12F1442	500					
12F1443	1000					
12F1444	2000					
12F1445	5000					
12F1446	10K					
12F1447	20K					
12F1448	50K					

● *NEW* TYPE 3520S 5 TURN WIREWOUND BUSHING MOUNT POTENTIOMETER

Same as Model 3510S except: is a 5 turn potentiometer, rated at 1.5 watts, 70°C.

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-500
12F1449	200	**13.50**	**13.10**	**12.30**	**11.10**	**9.90**
12F1450	500					
12F1451	1000					
12F1452	2000					
12F1453	5000					
12F1454	10K					
12F1455	20K					
12F1456	50K					
12F1457	75K					

● *NEW* KNOBPOT® 10 TURN POTENTIOMETER, MODEL 3600S

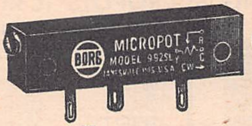
Knob and readout dial in one package. Silverweld® multiwire termination. 1.5 watts at 25°C. Range: —65°C to +65°C Meets: vibration, MIL-STD-202B, Method 204, 10C; shock, MIL-STD-202B, Method 202, 50C; sand and dust, MIL-E-5272C, Procedure 1; salt spray, materials meet MIL-STD-202B, method 101A; fungus, materials meet MIL-E-5272C; load life, 1000 hrs. per MIL-R-19A, shift 2% max.; dielectric strength, MIL-STD-202B, method 301. Shpg. Wt. 0.62 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-500
12F1458	1000	**20.52**	**19.00**	**17.10**	**16.22**	**15.20**	**14.44**
12F1459	2000						
12F1460	5000						
12F1461	10K						
12F1462	20K						
12F1463	50K						
12F1464	100K						

TRIMMING MICROPOTS

MICROPOT
MODEL 992L
JANESVILLE WIS U.S.A. CW

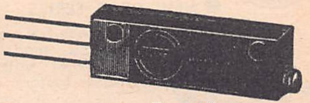
Type L



SL

MICROPOT
MODEL 992PC
JANESVILLE WIS U.S.A. CW

Type PC



Type W

Type Suffix Denotes Terminal Configuration: L-tinned copper insulated leads. SL-Gold plated solder lugs. PC-gold plated leads. W-gold plated wire leads

● *NEW* 990 SERIES

High-temperature, wirewound model. Resistance to 50,000 ohms. Provides the ultimate in precision. Resistance range 10 ohms to 50,000 ohms. Tolerance ±10% 10-75 ohm range; ±5% 100-50,000 ohm range. Withstands 2G's at 30-2000 cps. 100% noise test, 100% ratchet test. Welded internal connections. Humidity/waterproof meets MIL-E-5272A and MIL-STD-202. Operating temperature range —55°C to +175°C. Maximum power 1 watt, NO electrical noise at any setting. .36"H x .28"W x 1¼"L. 990L tinned copper leads, 990PC gold plated leads, 990SL Gold plated solder lugs.

MODEL 990—HIGH TEMPERATURE WIREWOUND POTENTIOMETERS

Type 990L Stock Nos.	Type 990PC Stock No.	Type 990SL Stock No.	Ohms	No. of Turns	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F841	12F925	....	10	72	5.94	5.50	4.95	4.70	4.40	4.18	3.96
12F842	12F926	....	20	88	5.94	5.50	4.95	4.70	4.40	4.18	3.96
12F843	12F927	....	50	108	5.94	5.50	4.95	4.70	4.40	4.18	3.96
12F844	12F928	....	100	108	5.94	5.50	4.95	4.70	4.40	4.18	3.96
12F845	12F929	12F1502	200	107	5.94	5.50	4.95	4.70	4.40	4.18	3.96
12F846	12F930	12F1503	500	167	5.94	5.50	4.95	4.70	4.40	4.18	3.96
12F847	12F931	12F1504	1K	225	5.94	5.50	4.95	4.70	4.40	4.18	3.96
12F848	12F932	12F1505	2K	273	5.94	5.50	4.95	4.70	4.40	4.18	3.96
12F850	12F934	12F1506	5K	378	5.94	5.50	4.95	4.70	4.40	4.18	3.96
12F851	12F935	12F1507	10K	448	5.94	5.50	4.95	4.70	4.40	4.18	3.96
12F852	12F936	12F1508	20K	577	7.56	7.00	6.30	5.98	5.60	5.32	5.04
12F1500	12F1501	12F1509	50K	729	8.10	7.50	6.75	6.41	6.00	5.70	5.40

● *NEW* 992 SERIES

General purpose wirewound, similar to 990 series except in temperature range, covers —55°C to +105°C. Economically priced. Available with panel mounting bracket. Three terminal configurations. Meets Military salt spray test as well as sand and dust specifications. Load life in excess of 500 hours. Acceleration up to 100G's. Dielectric strength 1100 Volts. 992L tinned copper leads; 992PC gold plated contacts; 992SL gold plated solder lugs.

MODEL 992—WIREWOUND POTENTIOMETERS

Type 992L Stock No.	Type 992PC Stock No.	Type 992SL Stock No.	Ohms	No. of Turns	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F939	12F954	12F1510	10	72	4.86	4.50	4.05	3.85	3.60	3.42	3.24
12F940	12F955	12F1511	20	88	4.86	4.50	4.05	3.85	3.60	3.42	3.24
12F941	12F956	12F1512	50	108	4.86	4.50	4.05	3.85	3.60	3.42	3.24
12F842	12F957	12F1513	100	108	4.86	4.50	4.05	3.85	3.60	3.42	3.24
12F943	12F958	12F1514	200	107	4.86	4.50	4.05	3.85	3.60	3.42	3.24
12F944	12F959	12F1515	500	167	4.86	4.50	4.05	3.85	3.60	3.42	3.24
12F945	12F960	12F1516	1K	225	4.86	4.50	4.05	3.85	3.60	3.42	3.24
12F946	12F961	12F1517	2K	273	4.86	4.50	4.05	3.85	3.60	3.42	3.24
12F948	12F963	12F1518	5K	378	4.86	4.50	4.05	3.85	3.60	3.42	3.24
12F949	12F964	12F1519	10K	448	4.86	4.50	4.05	3.85	3.60	3.42	3.24
12F950	12F965	12F1520	20K	577	6.48	6.00	5.40	5.13	4.80	4.56	4.32
12F951	12F966	12F1521	25K	550	6.48	6.00	5.40	5.13	4.80	4.56	4.32
12F952	....	....	30K	591	6.48	6.00	5.40	5.13	4.80	4.56	4.32
12F953	12F968	12F1522	50K	729	7.56	7.00	6.30	5.98	5.60	5.32	5.04

● *NEW* 993 SERIES

General purpose, carbon element. Resistance up to 1 Megohm. Includes Dust-Proof-O-Ring Seal as the more expensive models. Resistance range: 20K to 1 Megohm with a tolerance of ±20%. Power rated at .5 watt at 40°C. 903 series has the same temperature coeficient as the 992 series. Meets Military specifications. 993L tinned copper leads; 993PC gold plated leads; 993SL gold plated solder lugs. 5/16"Hx 28"Wx1¼"L.

MODEL 993—DEPOSITED CARBON FILM

Type 993L Stock No.	Type 993PC Stock No.	Type 993SL Stock No.	Ohms	No. of Turns	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F969	12F976	12F1523	20K	Inf.	5.50	5.09	4.58	4.35	4.08	3.87	3.67
12F970	12F977	12F1524	50K	Inf.	5.50	5.09	4.58	4.35	4.08	3.87	3.67
12F971	12F978	12F1525	100K	Inf.	5.50	5.09	4.58	4.35	4.08	3.87	3.67
12F972	12F979	12F1526	200K	Inf.	5.50	5.09	4.58	4.35	4.08	3.87	3.67
12F973	12F980	12F1527	500K	Inf.	5.50	5.09	4.58	4.35	4.08	3.87	3.67
12F975	12F982	12F1528	1 Meg.	Inf.	5.50	5.09	4.58	4.35	4.08	3.87	3.67

● *NEW* 994 SERIES

General purpose, humidity-proof, wirewound model with resistance to 50.000 ohms at 40 turns. For panel mounting. Resistance range 10 to 50,000 ohms at a tolerance ±10% 10Ω to 75Ω ±5%, 100Ω to 50,000Ω. Very similar to model 992 meeting the same rigid specifications. SL, L and PC models are copper and gold plated as in other models. Maximum wattage is rated at 1 watt. .36"Hx28"Wx1¼"L.

MODEL 994 HUMIDITY PROOF WIREWOUND POTENTIOMETER

Type 994L Stock No.	Type 994PC Stock No.	Type 994SL Stock No.	Ohms	No. of Turns	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F1529	12F1542	12F1555	10	72	6.00	5.55	5.00	4.75	4.44	4.22	4.00
12F1530	12F1543	12F1556	20	88	6.00	5.55	5.00	4.75	4.44	4.22	4.00
12F1531	12F1544	12F1557	50	108	6.00	5.55	5.00	4.75	4.44	4.22	4.00
12F1532	12F1545	12F1558	100	108	6.00	5.55	5.00	4.75	4.44	4.22	4.00
12F1533	12F1546	12F1559	200	107	6.00	5.55	5.00	4.75	4.44	4.22	4.00
12F1534	12F1547	12F1560	500	167	6.00	5.55	5.00	4.75	4.44	4.22	4.00
12F1535	12F1548	12F1561	1000	225	6.00	5.55	5.00	4.75	4.44	4.22	4.00
12F1536	12F1549	12F1562	2000	273	6.00	5.55	5.00	4.75	4.44	4.22	4.00
12F1537	12F1550	12F1563	5000	378	6.00	5.55	5.00	4.75	4.44	4.22	4.00
12F1538	12F1551	12F1564	10000	448	6.00	5.55	5.00	4.75	4.44	4.22	4.00
12F1539	12F1552	12F1565	20000	577	7.38	6.83	6.15	5.84	5.47	5.19	4.92
12F1540	12F1553	12F1566	25000	550	7.38	6.83	6.15	5.84	5.47	5.19	4.92
12F1541	12F1554	12F1567	50000	729	7.84	7.26	6.53	6.21	5.81	5.52	5.23

● *NEW* 995 SERIES

General purpose, humidity proof, carbon element model. Resistance range 20,000 to 1 Megohm at a tolerance of ±20%. Maintains the high standards set by the more expensive models in the use of close tolerances that meet military specifications. .5 watts maximum power rating. Similar to the 9993 series. SL, L and PC models copper and gold plated.

MODEL 995 HUMIDITY PROOF CARBON POTENTIOMETER

Type 995L Stock No.	Type 995PC Stock No.	Type 995SL Stock No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F1568	12F1574	12F1580	20,000	7.02	6.50	5.85	5.56	5.20	4.94	4.68
12F1569	12F1575	12F1581	50,000							
12F1570	12F1576	12F1582	100,000							
12F1571	12F1577	12F1583	200,000							
12F1572	12F1578	12F1584	500,000							
12F1573	12F1579	12F1585	1,000,000							

● *NEW* 2700 SERIES

High temperature humidity proof wirewound miniature model. Resistance range 100 to 30,000 ohms at a rated tolerance of ±5%. Constructed under close specifications to eliminate breakdown under shock or vibration. Tested against humidity and salt spray under government controls. Power rating is 1 watt at 70°C. Operating temperature —55°C to +175°C. L models have tinned copper leads. W models are gold plated leads. .32"Hx.18"Wx1.05"L.

MODEL 2700 MINIATURE WIREWOUND POTENTIOMETERS

Type 2700L Stock No.	Type 2700PC Stock No.	Type 2700W Stock No.	Ohms	No. of Turns	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F1586	12F1595	12F1604	100	121	8.64	8.00	7.20	6.84	6.40	6.08	5.76
12F1587	12F1596	12F1605	200	159	8.64	8.00	7.20	6.84	6.40	6.08	5.76
12F1588	12F1597	12F1606	500	196	8.64	8.00	7.20	6.84	6.40	6.08	5.76
12F1589	12F1598	12F1607	1000	252	8.64	8.00	7.20	6.84	6.40	6.08	5.76
12F1590	12F1599	12F1608	2000	311	8.64	8.00	7.20	6.84	6.40	6.08	5.76
12F1591	12F1600	12F1609	5000	285	8.64	8.00	7.20	6.84	6.40	6.08	5.76
12F1592	12F1601	12F1610	10000	383	8.64	8.00	7.20	6.84	6.40	6.08	5.76
12F1593	12F1602	12F1611	20000	464	10.26	9.50	8.55	8.12	7.60	7.22	6.84
12F1594	12F1603	12F1612	30000	517	10.26	9.50	8.55	8.12	7.60	7.22	6.84

POTENTIOMETERS

PRECISION TRIMMING MICROPOTS (Con't.)

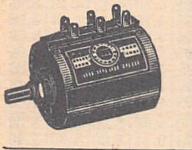
● NEW 2800 SERIES

High Temperature wirewound model. Humidity proof with sand and dust factors observed. Resistance range 10 to 50,000 ohms with a tolerance of ±10% —10Ω to 75Ω; ±5% —100Ω —50,000Ω. Welded internal connections to assure stability under high acceleration and shock. Temperature range is that of the 2700 series. Power rating is 1 watt at 110°C. 5⁄16"Hx.28"Wx1¼"L. Copper tinned leads and gold plated leads are also standard in this series.

MODEL 2800 WIREWOUND POTENTIOMETER

Type 2800L Stock No.	Type 2800PC Stock No.	Type 2800SL Stock No.	Ohms	No. of Turns	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F911	12F983	12F1615	10	72	7.02	6.50	5.85	5.56	5.20	4.94	4.68
12F912	12F984	12F1616	20	88	7.02	6.50	5.85	5.56	5.20	4.94	4.68
12F913	12F985	12F1617	50	108	7.02	6.50	5.85	5.56	5.20	4.94	4.68
12F914	12F986	12F1618	100	108	7.02	6.20	5.85	5.56	5.20	4.94	4.68
12F915	12F987	12F1619	200	107	7.02	6.50	5.85	5.56	5.20	4.94	4.68
12F916	12F988	12F1620	500	167	7.02	6.50	5.85	5.56	5.20	4.94	4.68
12F917	12F989	12F1621	1,000	225	7.02	6.50	5.85	5.56	5.20	4.94	4.68
12F918	12F990	12F1622	2,000	273	7.02	6.50	5.85	5.56	5.20	4.94	4.68
12F920	12F992	12F1623	5,000	378	7.02	6.50	5.85	5.56	5.20	4.94	4.68
12F921	12F993	12F1624	10,000	448	7.02	6.50	5.85	5.56	5.20	4.94	4.68
12F922	12F994	12F1625	20,000	577	8.64	8.00	7.20	6.84	6.40	6.08	5.76
12F1613	12F1614	12F1626	50,000	729	9.18	8.50	7.65	7.27	6.80	6.46	6.12

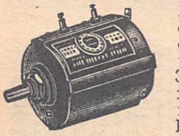
● NEW 2201B PRECISION 10-TURN LINEAR MICROPOTS



Model 2201B. A high resolution ten-turn precision potentiometer for use in commercial instrument applications. Specifications include Mechanical Rotation: 3600° +4° —0°. Temperature Range: —55°C to +105°C. Torque: 2 oz/in running 3 oz/in starting. Stop Strength: 160 oz/in. Shaft Dia: .250". Front Shaft ext. ⅞". Power Dissipation: 5 watts at 40°C. Wt. 4.2 oz.

Stock No.	Ohms	Std. Linearity	1-9	10-24	25-99	100-199
12F885	25	±.5%	10.00	9.50	8.90	8.00
12F886	50	±.5%				
12F887	100	±.25%				
12F888	200	±.25%				
12F889	500	±.25%				
12F890	1K	±.25%				
12F891	2K	±.25%				
12F892	5K	±.25%				
12F893	10K	±.25%				
12F894	20K	±.25%				
12F895	30K	±.25%				
12F896	50K	±.25%				
12F897	100K	±.25%				
12F898	200K	±.5%				

MODEL 205 PRECISION 10-TURN LINEAR MICROPOTS



Model 205. Designed for both military and commercial applications. Single shaft, non gangable. Specs. include: Mechanical Rotation 3600° +15° —0; Electrical Rotation 3600° +14.4° —0; Resistance Tolerance ±3% except items marked * which are ±10%. Linearity Accuracy: ±.1% zero based except items marked * which are ±.1% independent linearity. Running torque not over 1.5 inch ounces, starting torque not to exceed 3.0 inch ounces. Power dissipation 5 watts at 40°C. Shaft: ½" long, .25" dia. Size 2⅛" long, 1¾" dia. Fits panel hole .405. dia. Shipping wt., 1 lb

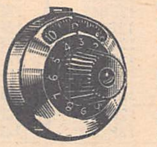
Stk. No.	Ohms	1-9	10-24	25-99	100-199	200-499
12F800*	1.15	16.86	15.81	14.75	14.05	11.94
12F801*	2.9					
12F802*	25					
12F803*	50					
12F804	100					
12F805	200					
12F806	500					
12F807	1K					
12F808	2K					
12F809	5K					
12F810	10K					
12F811	20K					
12F812	30K					
12F813	50K					
12F814	100K					

SERIES 1360 CONCENTRIC SCALE MICRODIALS®

New concentric scale dial for use with Borg Micropots. Manufactured of molded plastic with numbers and graduations molded in depth to resist wear. Similar in operation to the 1320 series except outer knob actuates the dial. Available in five combinations of red, gray and black. Turns dial: White with Black numbers. With brake.

No.	Type	Color Large Dial	Color Cover	1-9	10-24	25-99	100-199
12F870	1361	Dark Gray White Nos.	Dark Gray	5.82	5.46	5.09	4.85
12F871	1362	Light Gray Black Nos.	Light Gray				
12F872	1363	Black White Nos.	Red				
12F873	1364	Dark Gray White Nos.	Red				
12F874	1365	Light Gray Black Nos.	Red				

CONCENTRIC SCALE MICRODIALS®

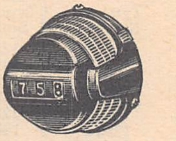


Composed of 2 concentrically mounted dials, the smaller counting turns up to 10, the larger for counting increments of a turn and having 100 equal divisions. Attached rigidly to the actuation shaft, eliminating backlash. The turn-counting dial plainly distinguishes between the tenth turn and the zero point. The accelerating turn-counting dial eliminates confusion on readings near integral turns. Operation is continuous in either direction. No stops are provided in the dial itself. Finger tip brake. Delivered completely assembled, mounting simple. #6 Allen wrench packed with each unit. Dia. 1¾", Depth 1³⁄16". Shaft dia. 0.252". Wt., 8 oz.

Stk. No.	Type	Description	1-9	10-24	25-99	100-199
12F833	1320	Bright chrome cover-satin chrome dials	5.82	5.46	5.09	4.85
12F834	1321	Bright chrome cover-gloss black dials				
12F835	1322	Satin chrome cover-satin chrome dials				
12F836	1323	Satin chrome cover-gloss black dials				
12F837	1324	Gloss black cover-satin chrome dials				
12F838	1325	Gloss black cover-gloss black dials				
12F839	1326	Dull black cover-satin chrome dials				
12F840	1327	Dull black cover-dull black dials				

DIRECT-READING MICRODIALS®

- **Inline Digital Presentation**
- **Control Knob Mounted Directly on Shaft**



Inline digital presentation provides greatest accuracy of perception when forced fast reading and setting are required. Rugged, sealed construction. Control knob mounted directly on the shaft to provide greatest sensitivity and accuracy. Packed with #6 Allen Set Screw Wrench, 1 adapter ring for use when panel thickness exceeds ⅛". Depth 1⅝". Panel face dia. 2¹⁄16". †Panel face dia. 1¹³⁄16", depth 1²¹⁄32". Finger tip braking on some models. *Has anodized aluminum control knob (meets 50 hour salt spray test). Shipping Wt., 8 oz.

Stk. No.	Type	Description	1-9	10-24	25-99	100-199
12F828	1304	0-9999 Scale, w/o brake	27.14	25.45	23.75	22.62
12F829	1305	0-99999 Scale, w/o brake	27.83	26.09	24.35	23.19
12F831	1309*†	0-999 Scale with brake	15.54	14.57	13.60	12.95
12F832	1310*†	0-999 Scale, w/o brake	14.28	13.39	12.50	11.90

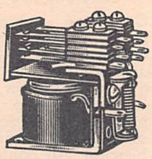
● NEW BORG 1" MICRODIAL® WITH BRAKE

Series 3000. Ten-turn, precision counting dial designed to provide maximum accuracy and convenience with Borg Micropot potentiometers. Concentric-scale Microdial with finger tip brake ideal for the series 205 and 1111B Micropots and for all potentiometers having ten turn adjustment and ¼" diameter shaft. Easy to read white numerals on black scale. Smooth, silent gear action. Size 1¼" with finger grip.

Stock No.	Type	Description	1-9	10-24	25-99	100-199
12F875	3041-2	Black Brake Knob	7.75	7.30	6.95	6.55
12F876	3041-4	Dark-Gray Br. Knob				
12F877	3041-5	Light-Gray Br. Knob				

GUARDIAN RELAYS

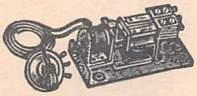
ALL-PURPOSE ECONOMY AC-DC RELAY



Types IR-500 & 505. Compact, lightweight relay capable of unusually heavy power control for its size. Long life, high quality relay available in a variety of AC and DC voltages with a selection of contact combinations. Contact rating at 60 cycles, 115 V non-inductive load. All contact ratings are 10 amps, except 4PDT which are 8 amps. *Normally open. Size 1 11/16x1½x1". Shipping weight: 4 oz.

Stock No.	Mfr. No.	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
6 VOLTS AC—(Coil resistance 1.7 ohms)							
24F000	IR-500-A6	SPST*	2.50	2.25	2.13	2.00	1.75
24F001	IR-500-C6	SPDT	2.80	2.52	2.38	2.24	1.96
24F002	IR-500-G6	DPDT	3.10	2.79	2.64	2.48	2.17
24F003	IR-500-GG6	4PDT	4.30	3.87	3.66	3.44	3.01
24 VOLTS AC—(Coil resistance 24 ohms)							
24F004	IR-500-A24	SPST*	2.50	2.25	2.13	2.00	1.75
24F005	IR-500-C24	SPDT	2.80	2.52	2.38	2.24	1.96
24F006	IR-500-G24	DPDT	3.10	2.79	2.64	2.48	2.17
24F007	IR-500-GG24	4PDT	4.30	3.87	3.66	3.44	3.01
115 VOLTS AC—(Coil resistance 725 ohms)							
24F008	IR-500-A115	SPST*	2.50	2.25	2.13	2.00	1.75
24F009	IR-500-C115	SPDT	2.80	2.52	2.38	2.24	1.96
24F010	IR-500-G115	DPDT	3.10	2.79	2.64	2.48	2.17
24F011	IR-500-GG115	4PDT	4.30	3.87	3.66	3.44	3.01
230 VOLTS AC—(Coil resistance 2950 ohms)							
24F012	IR-500-G230	DPDT	3.70	3.33	3.15	2.96	2.59
6 VOLTS DC—(Coil resistance 12 ohms)							
24F013	IR-505-A6	SPST*	2.50	2.25	2.13	2.00	1.75
24F014	IR-505-C6	SPDT	2.80	2.52	2.38	2.24	1.96
24F015	IR-505-G6	DPDT	3.10	2.79	2.64	2.48	2.17
24F016	IR-505-GG6	4PDT	4.30	3.87	3.66	3.44	3.01
12 VOLTS DC—(Coil resistance 50 ohms)							
24F106	IR-505-A12	SPST*	2.50	2.25	2.13	2.00	1.75
24F107	IR-505-C12	SPDT	2.80	2.52	2.38	2.24	1.96
24F108	IR-505-G12	DPDT	3.10	2.79	2.64	2.48	2.17
24F109	IR-505-GG12	4PDT	4.30	3.87	3.66	3.44	3.01
24 VOLTS DC—(Coil resistance 200 ohms)							
24F017	IR-505-A24	SPST*	2.50	2.25	2.13	2.00	1.75
24F018	IR-505-C24	SPDT	2.80	2.52	2.38	2.24	1.96
24F019	IR-505-G24	DPDT	3.10	2.79	2.64	2.48	2.17
24F020	IR-505-GG24	4PDT	4.30	3.87	3.66	3.44	3.01
110 VOLTS DC—(Coil resistance 4,000 ohms)							
24F021	IR-505-A110	SPST*	3.05	2.75	2.59	2.44	2.14
24F022	IR-505-C110	SPDT	3.15	2.84	2.68	2.52	2.21
24F023	IR-505-G110	DPDT	3.50	3.15	2.98	2.80	2.45
24F024	IR-505-GG110	4PDT	4.70	4.23	4.00	3.76	3.29

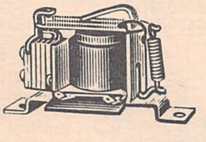
ELECTRICAL RESET OVERLOAD DC RELAY



For use in industrial panel installations. Protects from current surges and continuous overloads. Remote panel installation of control potentiometer simplifies adjustment of relay to operate on any current value from 250 to 750 ma. Auxiliary for pilot light indication of "overload" or "clear" position. Insulation, coil to ground rated 3,000 V. Shipping wt., 13 oz. Size: 4¾x2x1 15/16".

Stock No.	Mfr. No.	1-24	25-49	50-99	100-249	250-up
24F852	X-300-ER	8.85	7.97	7.52	7.08	6.20

SENSITIVE AC RELAY

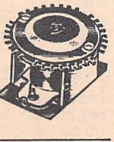


Type IR-120. Designed as an economical unit for SPDT requirements. Armature carries the contact blade and both are common to the field piece. Contact amperes 8. Contact rating at 60 cycles. 115 V non-inductive load. Size, 3x1⅞x1½". Shipping wt. 4.5 oz.

60 CYCLES AC

Stock No.	Mfr. No.	Volts	1-24	25-49	50-99	100-249	250-up
24F049	IR-120-C24	24	3.05	2.75	2.59	2.44	2.14
24F050	IR-120-C115	115	3.50	3.15	2.98	2.80	2.45
24F051	IR-120-C230	230	5.30	4.77	4.51	4.24	3.71

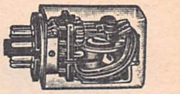
32-POLE DC RELAY



Group selector relay can simultaneously make common up to 32 circuits. All circuits insulated from ground. Contact blades molded in thermosetting phenolic. All contacting members completely enclosed. Phenolic plunger housing, 32 poles made common upon energization. Coil Res. Ohms 72. Shpg. wt. 6 oz. Size, 2 7/32"x1 17/32"x2⅛".

Stock No.	Type	Volts	1-24	25-49	50-99	100-249	250-up
24F058	IR-805-32P	24 DC	4.80	3.87	3.66	3.44	3.01

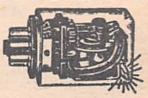
ENCLOSED PLUG-IN AC-DC RELAY



Type 1210. Type 1215. A powerful and economical relay enclosed in a transparent, lightweight Lucite case which has high impact strength, unaffected by weather, and is resistant to temperatures of 200° F. Relay available with 8 pin octal plug for DPDT and 11 pin for 3PDT. Contacts rated for 8 amperes at 60 cycles, 115 V. AC non-inductive load. Shpg. wt., 3.5 oz. Size, 2 23/32"x1⅜"x1⅜".

Stock No.	Mfr. No.	Volts	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
AC								
25F115	1210-G6	6	DPDT	5.70	5.13	4.85	4.56	3.99
24F116	1210-GC6	6	3PDT	7.10	6.39	6.04	5.68	4.97
24F117	1210-G24	24	DPDT	5.70	5.13	4.85	4.56	3.99
24F118	1210-GC24	24	3PDT	7.10	6.39	6.04	5.68	4.97
24F119	1210-G115	115	DPDT	5.70	5.13	4.85	4.56	3.99
24F120	1210-GC115	115	3PDT	7.10	6.39	6.04	5.68	4.97
24F2457	1210-G230	230	DPDT	5.95	5.36	5.06	4.76	4.17
24F2458	1210-GC230	230	3PDT	7.35	6.62	6.25	5.88	5.15
DC								
24F121	1215-G6	6	DPDT	5.80	5.22	4.93	4.64	4.06
20F122	1215-GC6	6	3PDT	7.25	6.53	6.16	5.80	5.08
24F2459	1215-G12	12	DPDT	5.80	5.22	4.93	4.64	4.06
24F2460	1215-GC12	12	3PDT	7.25	6.53	6.16	5.80	5.08
24F123	1215-G24	24	DPDT	5.80	5.22	4.93	4.64	4.06
24F124	1215-GC24	24	3PDT	7.25	6.53	6.16	5.80	5.08
24F2461	1215-G110	110	DPDT	6.05	5.45	5.14	4.84	4.24
24F2462	1215-GC110	110	3PDT	7.50	6.75	6.38	6.00	5.25

ENCLOSED PLUG-IN AC RELAY WITH NEON LAMP

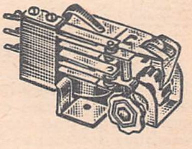


Type 1210-N. A miniature neon lamp is connected across coil terminals. It lights each time the coil is energized, or indicates a circuit fault when lamp is dark. Ideal for detecting circuit faults in relay banks, mass relay arrangements, or where relays are visibly located at intermediate switching points of the circuitry. Precludes the use of circuit testers. Coil Res. 1000 ohms. Contacts rated 8 amps at 115 VAC, 60 cycles, non-inductive load. Size, 2 23/32x1⅜x1⅜. Shipping weight, 3.5 ounces.

Stock No.	Mfg. No.	Coil Res.	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F191	1210-N-G115*	1000	DPDT	6.30	5.67	5.36	5.04	4.41
24F192	1210-N-GC115†	1000	3PDT	7.70	6.93	6.55	6.16	5.39

*8 pin octal plug. †11 pin plug.

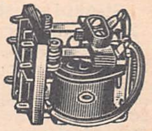
IMPULSE RATCHET RELAY—AC



Type 670. For on/off control of lighting, motors, appliances and speaker applications, among others. Each impulse (up to 10 steps per second) reverses contacts. Contact amperes 12.5 Intermittent duty coil with voltage of 115 VAC, 60 cycles. Size: 3x1¾x2 1/16". Shpg. wt., 7.5 oz.

Stock No.	Type	Cont. Comb.	Coil VAC	1-24	25-49	50-99	100-249	250-up
24F193	670-C115	SPDT	115	5.75	5.18	4.89	4.60	4.03
24F194	670-G115	DPDT	115	5.85	5.27	4.97	4.68	4.10

MEDIUM POWER AC-DC RELAY

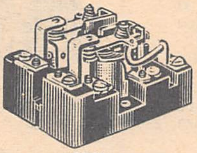


Type 1200. Type 1205. Small, highly efficient relay applicable to automation, communications, remote control, selectors, switching devices and experimental uses. Heavy solder lug type terminals molded in phenolic block, with barriers for over-surface insulation, built to meet U/L specifications. Contacts rated 8 amperes at 60 cycles, 115 V. AC non-inductive load. Shpg. wt., 2.5 oz., size, 1⅝"x1"x1½". Mounting: single mtg. hole 6-32 TAP.

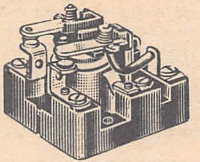
Stock No.	Mfr. No.	Volts	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
AC								
24F833	1200-G6	6	DPDT	3.60	3.24	3.06	2.88	2.52
24F834	1200-GC6	6	3PDT	4.00	3.60	3.40	3.20	2.80
24F835	1200-G24	24	DPDT	3.60	3.24	3.06	2.88	2.52
24F836	1200-GC24	24	3PDT	4.00	3.60	3.40	3.20	2.80
24F2467	1200-C115	115	SPDT	3.50	3.15	2.98	2.80	2.45
24F837	1200-G115	115	DPDT	3.60	3.24	3.06	2.88	2.52
24F838	1200-GC115	115	3PDT	4.00	3.60	3.40	3.20	2.80
24F2450	1200-G230	230	DPDT	3.85	3.47	3.27	3.08	2.70
24F2451	1200-GC230	230	3PDT	4.25	3.83	3.61	3.40	2.98
DC								
24F839	1205-G6	6	DPDT	3.30	2.97	2.81	2.64	2.31
24F840	1205-GC6	6	3PDT	3.70	3.33	3.15	2.96	2.59
24F2452	1205-G12	12	DPDT	3.30	2.97	2.81	2.64	2.31
24F2453	1205-GC12	12	3PDT	3.70	3.33	3.15	2.96	2.59
24F2454	1205-C24	24	SPDT	3.20	2.88	2.72	2.56	2.24
24F841	1205-G24	24	DPDT	3.30	2.97	2.81	2.64	2.31
24F842	1205-GC24	24	3PDT	3.70	3.33	3.15	2.96	2.59
24F2455	1205-G110	110	DPDT	3.55	3.20	3.02	2.84	2.49
24F2456	1205-GC110	110	3PDT	3.95	3.56	3.36	3.16	2.77

GUARDIAN RELAYS

POWER RELAYS



2200



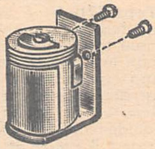
2210

Series 2200 and 2210 power relays are rated at 25 amperes continuous duty at 230 volts AC. 75% power factor. Operating power requirement for AC 9.5 volt amperes, 60 cycles. Coil drain approximately .080 amperes at 115 volts, 60 cycles. Entire relay shipping weight, 11 ounces.

60 CYCLES—AC COILS

Stk. No.	Mfg. No.	1-24	25-49	50-99	100-249	250-up
24F816 24F817 24F818	2200-DPDT-6V 2200-DPDT-24V 2200-DPDT-115V	6.10	5.49	5.19	4.88	4.27
24F819	2200-DPDT-230V	6.50	5.85	5.53	5.20	4.55
24F110 24F111 24F112	2210-DPST-N.O.-6V 2210-DPST-N.O.-24V 2210-DPST-N.O.-115V	5.25	4.73	4.46	4.20	3.67
24F113	2210-DPST-N.O.-230V	5.60	5.04	4.76	4.48	3.92

INTERCHANGEABLE COIL ASSEMBLIES



By removing two easily accessible screws, coil assembly can be replaced by coil of another value. Complete instructions for this operation are included with each unit. Solder connections are not required when changing coils. Shpg. wt., 6 oz.
MOUNTING: 2 holes for 8/32 screws on 1⅞" centers.

AC REPLACEMENT COILS—FOR EITHER RELAY

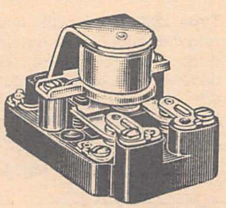
Stk. No.	Type No.	1-24	25-49	50-99	100-249	250-up
24F825 24F827	2200-6AV 2200-115AV	2.25	2.03	1.91	1.80	1.57
24F828	2200-230AV	2.50	2.25	2.13	2.00	1.75

POWER RELAY REPLACEMENT CONTACT SWITCH PARTS

Available for series 2200 only—Replacement Contact Switch Parts for easy right or left S.P.D.T. assembly. Package contains one normally open and one normally closed contact bracket, complete moving blade and terminal. Left or Right Switch Assemblies determined by viewing relay from armature hinge end with contacts up. Weight, 4 ounces. Cur. Cap. 25 amps.

Stk. No.	Type	1-24	25-49	50-99	100-249	250-up
24F847	CS-2200-Left	1.85	1.67	1.57	1.48	1.29
24F848	CS-2200-Right	1.85	1.67	1.57	1.48	1.29

GUARDIAN SERIES 2400 AC AND 2405 DC POWER RELAYS

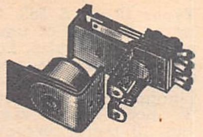


For power applications requiring up to 15 ampere contacts. Inverted coil construction protects armature and contacts. Both 2400 A.C. and Series 2405 D.C. Power Relays have standard DPDT contacts rated for 15 amperes non-inductive, or 1 H.P. at 115/230 volts, 60 cycles. Series 2400 standard coil voltages are 6, 12, 24 and 115 V.A.C. Series 2405 standard coil voltages are 6, 12, 24 and 110 V.D.C. Armature extension permits manual circuit testing. Screw type terminals easily accessible for top or bottom connections. Easy to mount recessed auxiliary switch, up to S.P.D.T. for 10 ampere operation; available for both A.C. and D.C. versions. Size: 3⁵⁄₁₆" x 2½" x 2¹⁄₁₆". Shpg. wt., 8 ounces. Mounting: Two .196" Dia. holes on 1⅞" centers.

Stk. No.	Mfg. No.	1-24	25-49	50-99	100-249	250-up
24F213 24F214 24F215	2400-DPDT-6VAC 2400-DPDT-24VAC 2400-DPDT-115VAC	5.40	4.86	4.59	4.32	3.78
24F216	2400-DPDT-230VAC	5.70	5.13	4.85	4.56	3.99
24F2463 24F2464 24F2465	2405-DPDT-6VDC 2405-DPDT-12VDC 2405-DPDT-24VDC	5.60	5.04	4.76	4.48	3.92
24F2466	2405-DPDT-110VDC	5.90	5.31	5.02	4.72	4.13
24F217	2400-SPDT-AUX* Auxiliary Switch	1.35	1.21	1.15	1.08	.94

*10 amps.

UNIVERSAL "200" SERIES



Coil and contact assemblies for building your own relays. Select the two basic parts, a coil assembly and a contact switch assembly, from the listing below. The coil assembly consists of the coil and the field piece; the contact assembly consists of switch blades, armature, return spring and mounting bracket. All contacts are rated at 60 cycles A.C. non-inductive. Standard contact assembly is 2⅞x1¾x1". Midget assembly is 1⅝" long. Mounting, all Series 200 Relays: (2) 6-32 mtg. holes, .687" centers., Shpg. Wt., 4 oz.

CONTACT SWITCH ASSEMBLIES

Stk. No.	Type	Contacts	1-24	25-49	50-99	100-249	250-up
24F800	200-1	SPDT*	1.50	1.35	1.28	1.20	1.05
24F801	200-2	DPDT*	2.00	1.80	1.70	1.60	1.40
24F802	200-4	DPDT†	2.25	2.03	1.91	1.80	1.57
24F805	200-5	4PDT*	3.50	3.15	2.98	2.80	2.45
24F803	200-M1	Midget SPDT**	1.40	1.26	1.19	1.12	.98
24F804	200-M2	Midget DPDT**	1.75	1.58	1.49	1.40	1.22
24F806	200-M5	Midget 4PDT*	2.85	2.57	2.42	2.28	1.99

*Rating 8 amps. **Rating 10 amps. †Rating 12.5 amps.

AC COIL ASSEMBLIES

Stk. No.	Type No.	Volts	1-24	25-49	50-99	100-249	250-up
24F810 24F811 24F812	200- 6A 200- 12A 200- 24A	6 12 24	1.75	1.58	1.49	1.40	1.22
24F813	200-115A	115	2.05	1.85	1.74	1.64	1.43
24F814	200-230A	230	2.70	2.43	2.30	2.16	1.89

DC COIL ASSEMBLIES

Stk. No.	Type No.	Volts	1-24	25-49	50-99	100-249	250-up
24F820 24F821 24F822 24F823	200- 6D 200- 12D 200- 24D 200- 32D	6 12 24 32	1.90	1.71	1.62	1.52	1.33
24F824	200-110D	110	2.50	2.25	2.13	2.00	1.75

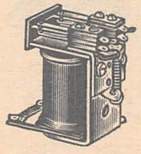
DC PLATE COIL ASSEMBLIES

Stk. No.	Type No.	Volts	1-24	25-49	50-99	100-249	250-up
24F815	200-5000D	5000Ω	2.20	1.98	1.87	1.76	1.54
24F829	200-10000D	10000Ω	2.50	2.25	2.13	2.00	1.75

Contact switch parts for adding poles to assemblies 200-1 and 200-2, 200-M1 and 200-M2.

Stk. No.	Type		1-24	25-49	50-99	100-249	250-up
24F830	200-3	....	1.50	1.35	1.28	1.20	1.05
24F831	200-M3	....	1.50	1.35	1.28	1.20	1.05

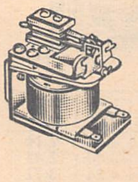
PLATE CIRCUIT RELAY



Unit is constructed with extra long coil for greater sensitivity. Adaptable to voltage operating as well as sensitive plate circuit control installations. 8" contact amps. Coil impregnated for reliability and longer life. Average power requirement, 0.2 watts. DPDT Contacts, fine silver. Size, 2@"x2"x1½". Shipping wt., 5.5 oz.

Stk. No.	Mfg. No.	Coil Res. Ohms	Oper. Mils	1-24	25-49	50-99	100-249	250-up
24F055	IR-625-2.5	2,500	9Ma.	3.85	3.47	3.27	3.08	2.70
24F056	IR-625-5	5,000	6.3Ma.	4.25	3.83	3.61	3.40	2.98
24F057	IR-625-10	10,000	4.5Ma.	5.25	4.73	4.46	4.20	3.68

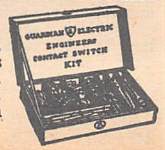
AC-60 CYCLE LATCHING ON/OFF RELAY



Type IR-610L Midget Latching Relay with single coil and 5 ampere contact rating for SPST, or SPDT, contact combinations. Recommended for positive ON/OFF control of positioning devices, remote controls, lighting circuits and many additional applications. Impulse as short as 20 M.S. energizes coil to reverse position of snap-action switches. Holds last position of switch with coil de-energized. Contacts rated for 5 amperes, at 60 cycles, 115 V. AC non-inductive load. Size, 2¹⁄₁₆" x 1⅛" x 1⅝". Shpg. wt.. 4 oz.

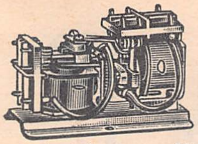
Stk. No.	Type	Comb.	1-24	25-49	50-99	100-249	250-up
24F097	IR-610L-A115V	SPST	3.80	3.42	3.23	3.04	2.66
24F098	IR-610L-C115V	SPDT	3.95	3.56	3.36	3.16	2.77

ENGINEER'S CONTACT SWITCH KIT



Indispensable to those who design, build, repair or test electrical controls. Contains large assortment of switch blades, contacts, separators, adapters, fish papers, bushings, etc. All standard high-quality Guardian parts.
24F094. NET 10.95

GUARDIAN RELAYS

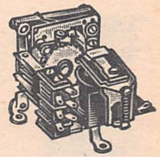


INTERLOCKING RELAY 115V. AC

Two interlocking AC relays in sturdy metal frame bracket. Used to maintain circuits continuously without coil power consumption. Unit is electrically pulse operated with mechanical hold and electrical release. Contacts rated at 8 amps., 60 cps. non-inductive. Size, $1\frac{13}{16}$x1¾x2⅞". 4PDT contacts. Shipping wt., 5.5 oz.

Stock No.	Mfg. No.	1-24	25-49	50-99	100-249	250-up
24F868	IR-1200/1200-GG115	10.25	9.23	8.71	8.20	7.18

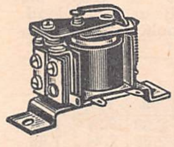
SEQUENCE RATCHET RELAY



Small but rugged 4PDT stepper with 3-position switch operation center position "Off." Large cam assures precision "step" action. 24 pt. ratchet. Fine silver contacts rated for 10 amps., 115 volts, 60 cps. Unit rated at intermittent duty. 70 wats. 3x2¼x$\frac{5}{16}$". Shpg. wt., 10 oz.

Stock No.	Mfg. No.	VA.	Max. Steps /sec.	1-24	25-49	50-99	100-249	250-up
24F076	IR-M-120-115A	100	10	11.75	10.58	9.99	9.40	8.23

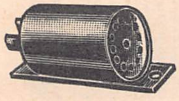
HEAVY DUTY INDUSTRIAL RELAY—AC



Type IR-220. Rugged unit breaks up to 20 amperes, at 230 volts. Armature is equipped with bakelite contact mounting block carrying $\frac{5}{16}$" dual contacts. Bakelite is tested at 1500 volts breakdown to ground. Contacts are silver alloy. Relay is available in SPST-NO contact combination only. Contact rating at 60 cycles, 20 amps, 230 V non-inductive load. Size: 3x1⅞x1¾". Shipping wt., 5.5 oz.

Stock No.	Mfr. No.	Volts	1-24	25-49	50-99	100-249	250-up
24F052	IR-220-A24	24	3.95	3.56	3.36	3.16	2.77
24F053	IR-200-A115	115	4.45	4.01	3.78	3.56	3.12
24F054	IR-220-A230	230	4.95	4.46	4.21	3.96	3.47

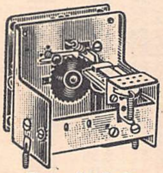
ROTOMITE STEPPER-DC



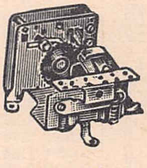
Continuous rotation on 12 positions up to 20 step per sec. Stepping mechanism, coils and contacts completely (metal) enclosed. 3 amps resistive, 1 amp inductive (50% P.F.). Tests well over 1,000,000 operations. App: bus. machines, lighting, sorting, computer circuits, and counting. Size: 2"L.x $1\frac{3}{16}$"D. Shpg. Wt., 5 oz.

Stk. No.	Mfg. No.	VDC	1-24	25-49	50-99	100-249	250-up
24F125	IR-705-12P-6D	6	5.40	4.86	4.59	4.32	3.78
24F126	IR-705-12P-12D	12					
24F127	IR-705-12P-24D	24					

CONTINUOUS ROTATION STEP RELAY



Type IR-P.C.



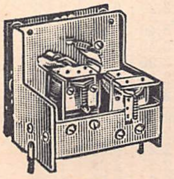
Type IR-M.C.

Type IR-P.C. Constructed with micro-finished shaft and Oilite shaft bearing. Beryllium copper pawl control shutter. Selection contacts are terminated on a phenolic board, solder beaded for easy soldering. Mechanical life expectancy estimated at 4,000,000 steps. Will operate satisfactorily at 15% below or 10% above rated voltage. Coil volts: 115 VAC. Watts: 45. Number of points: 40. 40 active contacts including zero position. Size: 3⅜"x3"x$3\frac{9}{16}$". Shipping weight, 17 oz.

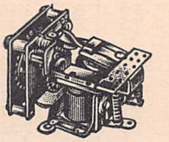
Type IR-M.C. A smaller continuous rotation operation stepper similar to the P.C. with life expectancy of 2,000,000 steps. Coil volts: 115 VAC, 18 watts. Number of points: 24. 24 active contacts including zero position. Size: $2\frac{3}{16}$x3x3¼. Shipping weight, 9½ oz.

Stk. No.	Mfr. Type	VA.	1-24	25-49	50-99	100-249	250-up
24F762	IR-PC-115A	70	18.15	16.34	15.43	14.52	12.71
24F764	IR-MC-115A	30	13.00	11.70	11.05	10.40	9.10

ELECTRICAL RESET STEP RELAY



Type IR-P.E.R.



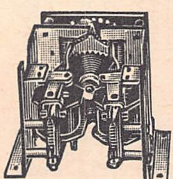
Type M.E.R.

Type IR-P.E.R. Sturdy electrical reset stepper built for long, trouble-free operation. Steel box type frame construction. Constructed with Oilite shaft bearings assuring permanent lubrication. Positive mechanical stops are available to limit total number of "steps" in any single unit. Unit resets automatically when reset coil is energized. Coil volts: 115 VAC. 45 watts (stepping coil), 15 watts (reset coil). No. of points: 40. 36 active contacts including zero position. Size 3x3⅜x$3\frac{9}{16}$". Shipping weight, 22 oz.

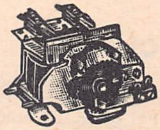
Type M.E.R. A direct drive (steps on energization) electrical reset stepper with positive acting mechanical reset interlock, actuated by the reset magnet and unlocked on the first energization of the step magnet. This device assures positive reset on as short a pulse as one-hundredth of a second or even from its own selection contacts. By interconnecting two or more Steppers, count can be increased to any desired total counting by tens or by any other convenient multiple. Unit is also used to repeat a specific vending operation, then to automatically shut off all vending operations until next activation. Coil volts: 115 VAC. Watts: 18 (stepping coil), 7 (reset coil). Number of points: 24. 22 active contacts including zero position. Size 3¼x$2\frac{3}{16}$x3-1/9". Shpg. wt., 11½ oz.

Stk. No.	Type	VA.	1-24	25-49	50-99	100-249	250-up
24F766	IR-PER-115A	70-25	24.20	21.78	20.57	19.36	16.94
24F865	MER-115A	30-9	14.00	12.60	11.90	11.20	9.80

ADD AND SUBTRACT STEP RELAY



Type IR-R.A.S.



Type IR-M.A.S.

Type IR-R.A.S. Nonferrous shutters control motion of the pawl to extend life of unit and prevent skipping of the ratchet. Steps one step at a time in either direction, depending upon which one of two coils may be energized. Coil volts: 115 VAC. 45 watts. No. of points: 40. 38 active contacts including zero position. Size: $3\frac{1}{16}$x4⅛x$3\frac{9}{16}$". Shipping weight, 29½ oz.

Type IR-M.A.S. Midget Add and Subtract Stepper is similar to R.A.S. in general operation. A zero position switch is opened at home position. Guardian Steppers are intermittent duty units rated at 10% duty cycle (out of each hour), maximum energization single period, 5 minutes. Coil volts: 115 VAC. 10 watts. No. of points: 30. Zero position switch only. Size: $1\frac{15}{16}$x3⅛x3". Shipping weight, 11 oz.

Stock No.	Mfr. Type	VA.	1-24	25-49	50-99	100-249	250-up
24F770	IR-R.A.S.115A	100	25.30	22.77	21.51	20.24	17.71
24F772	IR-M.A.S.115A	15	15.95	14.36	13.56	12.76	11.17

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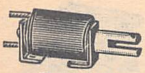
GUARDIAN AC AND DC SOLENOIDS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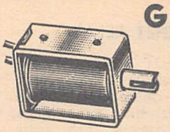
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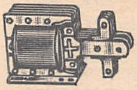
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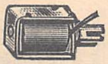
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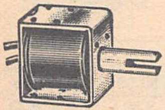
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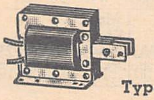
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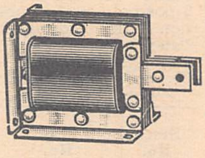
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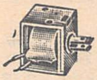
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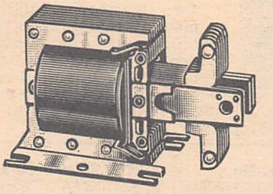
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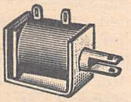
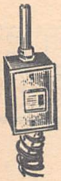

Type 24

Available in both intermittent and continuous duty types. Intermittent types should not be energized for more than 5 consecutive minutes, or be permitted to rise more than 85° C. above 24° C. ambient, without giving sufficient time to cool between operation cycles. Continuous duty types are designed so they will not rise more than 85° C. above the 24° C. ambient temperature when operated at rated load. Plunger has slotted end with ⅛" diameter hole for coupling.

Stock No.	Type	Volts	Current	Duty	Ohms	Amps	Adj. Stroke (in.)	Max. *Lift (oz.)	SIZE Height (in.)	SIZE Length (in.)	SIZE Width (in.)	Shpg. Wt. (oz.)	1-24	25-49	50-99	100-249	250-Up
24F870	1A1	115	AC	Inter.	300	.17	⅛-½	8	1¹⁄₁₆	1¾	1⁵⁄₁₆	4.5	2.80	2.52	2.38	2.24	1.96
24F871	1A1	115	AC	Cont.	675	.076	⅛-⅜	3	1¹⁄₁₆	1¾	1⁵⁄₁₆	4.5	2.80	2.52	2.38	2.24	1.96
24F078	2	115	AC	Inter.	60	.50	⅛-⅞	27	1⅝	1⁹⁄₁₆	1⁷⁄₁₆	10	3.20	2.88	2.72	2.56	2.24
24F079	2	115	AC	Cont.	166	.155	⅛-⅞	10.5	1⅝	1⁹⁄₁₆	1⁷⁄₁₆	10	3.20	2.88	2.72	2.56	2.24
24F872	4	115	AC	Inter.	37	.64	⅛-1	24	1⅝	2	1⁷⁄₁₆	14.5	3.80	3.42	3.23	3.04	2.66
24F873	4	115	AC	Cont.	133	.14	⅛-½	6	1⅝	2	1⁷⁄₁₆	14.5	3.80	3.42	3.23	3.04	2.66
24F890	11	24	AC	Inter.	5.1	1.10	⅛-1	20	1³⁄₁₆	1⁵⁄₁₆	1²⁷⁄₃₂	7.5	2.70	2.43	2.30	2.16	1.89
24F080	11	24	AC	Cont.	12	.33	⅛-1	8	1³⁄₁₆	1⁵⁄₁₆	1²⁷⁄₃₂	7.5	2.70	2.43	2.30	2.16	1.89
24F081	11	115	AC	Inter.	125	.225	⅛-1	20	1³⁄₁₆	1⁵⁄₁₆	1²⁷⁄₃₂	7.5	2.70	2.43	2.30	2.16	1.89
24F082	11	115	AC	Cont.	300	.072	⅛-1	8	1³⁄₁₆	1⁵⁄₁₆	1²⁷⁄₃₂	7.5	2.70	2.43	2.30	2.16	1.89
24F086	12	115	AC	Inter.	100	.27	⅛-1	32	1⁷⁄₁₆	1⅝	1³⁄₁₆	6	4.15	3.74	3.53	3.32	2.90
24F087	12	115	AC	Cont.	150	.155	⅛-⅞	22	1⁷⁄₁₆	1⅝	1³⁄₁₆	6	4.15	3.74	3.53	3.32	2.90
24F874	14	115	AC	Inter.	11	1.4	⅛-1½	110	2¹⁄₁₆	2⁷⁄₁₆	1⁷⁄₁₆	19	5.50	4.95	4.68	4.40	3.85
24F875	14	115	AC	Cont.	18	.52	⅛-1½	65	2¹⁄₁₆	2⁷⁄₁₆	1⁷⁄₁₆	19	5.50	4.95	4.68	4.40	3.85
24F090	16	115	AC	Inter.	41	.54	⅛-¾	96	1⁷⁄₁₆	1⅝	1⅛	7.5	3.20	2.88	2.72	2.56	2.24
24F876	16	115	AC	Cont.	85	.19	⅛-⅝	55	1⁷⁄₁₆	1⅝	1⅛	7.5	3.20	2.88	2.72	2.56	2.24
24F892	16	230	AC	Inter.	224	.230	⅛-¾	96	1⁷⁄₁₆	1⅝	1⅛	7.5	3.40	3.06	2.89	2.72	2.38
24F893	16	230	AC	Cont.	350	.110	⅛-⅝	55	1⁷⁄₁₆	1⅝	1⅛	7.5	3.40	3.06	2.89	2.72	2.38
24F092	18	115	AC	Inter.	8.8	1.45	⅛-1	304	2¹⁄₁₆	2½	1¹³⁄₁₆	16.5	4.50	4.05	3.83	3.60	3.15
24F093	18	115	AC	Cont.	19.7	.39	⅛-1	145	2¹⁄₁₆	2½	1¹³⁄₁₆	16.5	4.50	4.05	3.83	3.60	3.15
24F894	18	230	AC	Inter.	45	.590	⅛-1	304	2¹⁄₁₆	2½	1¹³⁄₁₆	16.5	4.70	4.23	4.00	3.76	3.29
24F895	18	230	AC	Cont.	78	.20	⅛-1	145	2¹⁄₁₆	2½	1¹³⁄₁₆	16.5	4.70	4.23	4.00	3.76	3.29
24F754	24	115	AC	Inter.	310	.130	¹⁄₁₆-⅝	19	⁵⁹⁄₆₄	1¼	1	3.0	2.95	2.66	2.51	2.36	2.06
24F755	24	115	AC	Cont.	500	.07	¹⁄₁₆-⅝	12	⁵⁹⁄₆₄	1¼	1	3.0	2.95	2.66	2.51	2.36	2.06
24F878	1A1	24	DC	Inter.	42.6	.56	⅛-⅜	5	1¹⁄₁₆	1¾	1⁵⁄₁₆	4.5	2.50	2.25	2.13	2.00	1.75
24F879	1A1	24	DC	Cont.	74.4	.32	⅛-¼	2	1¹⁄₁₆	1¾	1⁵⁄₁₆	4.5	2.50	2.25	2.13	2.00	1.75
24F880	1A1	115	DC	Inter.	803	.14	⅛-⅜	5	1¹⁄₁₆	1¾	1⁵⁄₁₆	4.5	3.00	2.70	2.55	2.40	2.10
24F881	1A1	115	DC	Cont.	2070	.05	⅛-¼	2	1¹⁄₁₆	1¾	1⁵⁄₁₆	4.5	3.00	2.70	2.55	2.40	2.10
24F885	4	24	DC	Inter.	15	1.6	⅛-1	57	1⅝	2	1⁷⁄₁₆	14.5	3.80	3.42	3.23	3.04	2.66
24F886	4	24	DC	Cont.	50	.48	⅛-⅞	20	1⅝	2	1⁷⁄₁₆	14.5	3.80	3.42	3.23	3.04	2.66
24F887	4	115	DC	Inter.	346	.33	⅛-1	57	1⅝	2	1⁷⁄₁₆	14.5	4.00	3.60	3.40	3.20	2.80
24F888	4	115	DC	Cont.	1210	.09	⅛-⅞	20	1⅝	2	1⁷⁄₁₆	14.5	4.00	3.60	3.40	3.20	2.80
24F889	11	6	DC	Inter.	2	3.00	⅛-⅞	39	1³⁄₁₆	1⁵⁄₁₆	1²⁷⁄₃₂	7.5	2.70	2.43	2.30	2.16	1.89
24F083	11	6	DC	Cont.	5	1.2	⅛-⅝	21	1³⁄₁₆	1⁵⁄₁₆	1²⁷⁄₃₂	7.5	2.70	2.43	2.30	2.16	1.89
24F891	11	24	DC	Inter.	32	.750	⅛-⅞	39	1³⁄₁₆	1⁵⁄₁₆	1²⁷⁄₃₂	7.5	2.70	2.43	2.30	2.16	1.89
24F084	11	24	DC	Cont.	72	.333	⅛-⅝	21	1³⁄₁₆	1⁵⁄₁₆	1²⁷⁄₃₂	7.5	2.70	2.43	2.30	2.16	1.89
24F756	22	6	DC	Inter.	4.7	1.27	¹⁄₁₆-⅜	24	¾	1⅛	¾	2.5	2.60	2.34	2.21	2.08	1.82
24F757	22	6	DC	Cont.	9	.667	¹⁄₁₆-¼	13	¾	1⅛	¾	2.5	2.60	2.34	2.21	2.08	1.82
24F758	22	24	DC	Inter.	60	.4	¹⁄₁₆-⅜	24	¾	1⅛	¾	2.5	2.60	2.34	2.21	2.08	1.82
24F759	22	24	DC	Cont.	144	.167	¹⁄₁₆-¼	13	¾	1⅛	¾	2.5	2.60	2.34	2.21	2.08	1.82
24F176	28	24	AC	Inter.	7.5	.900	¹⁄₁₆-½	35	1³⁄₁₆	1⅛	1⁵⁄₁₆	3.5	2.70	2.43	2.30	2.16	1.89
24F177	28	24	AC	Cont.	17.4	.340	¹⁄₁₆-½	20	1³⁄₁₆	1⅛	1⁵⁄₁₆	3.5	2.70	2.43	2.30	2.16	1.89
24F178	28	115	AC	Inter.	220	.160	¹⁄₁₆-½	35	1³⁄₁₆	1⅛	1⁵⁄₁₆	3.5	2.90	2.61	2.46	2.32	2.03
24F179	28	115	AC	Cont.	400	.077	¹⁄₁₆-½	20	1³⁄₁₆	1⅛	1⁵⁄₁₆	3.5	2.90	2.61	2.46	2.32	2.03
24F218	28	6	DC	Inter.	3.3	1.80	¹⁄₁₆-½	41	1³⁄₁₆	1⅛	1⁵⁄₁₆	3.5	2.60	2.34	2.21	2.08	1.82
24F219	28	6	DC	Cont.	7.7	.78	¹⁄₁₆-⅜	35	1³⁄₁₆	1⅛	1⁵⁄₁₆	3.5	2.60	2.34	2.21	2.08	1.82
24F220	28	12	DC	Inter.	13.	.92	¹⁄₁₆-½	41	1³⁄₁₆	1⅛	1⁵⁄₁₆	3.5	2.60	2.34	2.21	2.08	1.82
24F221	28	12	DC	Cont.	27	.45	¹⁄₁₆-⅜	35	1³⁄₁₆	1⅛	1⁵⁄₁₆	3.5	2.60	2.34	2.21	2.08	1.82
24F222	28	24	DC	Inter.	50	.48	¹⁄₁₆-½	41	1³⁄₁₆	1⅛	1⁵⁄₁₆	3.5	2.60	2.34	2.21	2.08	1.82
24F223	28	24	DC	Cont.	104	.23	¹⁄₁₆-⅜	35	1³⁄₁₆	1⅛	1⁵⁄₁₆	3.5	2.60	2.34	2.21	2.08	1.82

*Pull Data Obtained During "Cold" Operation, when plunger is down.

VAP-AIR ANTI-ICE TEMPERATURE CONTROL



Model 26120051. Vap-Air Anti-Ice Temperature Control. This small, lightweight control unit when used with an electric heat source prevents formation of ice or sleet on any weather-exposed surface such as radio, television, FM, microwave transmitting antennas and dishes; radar and other communications antennas; driveways, steps and sidewalks; water pipes, oil supply lines, radiators, and downspouts; railroad switches and locomotives. When temperature drops to 35°F., electrical power is turned cn, and kept on until temperature drops below 25°F. where current is turned off. Above or below this range, ice or sleet seldom forms. When temperature rises from low levels, power is on at 25°F. and off at 35°F. Other ranges are available on special order. 115 VAC, 60 cycles, single phase. 25 amperes load (resistive.) —65%°F. to +200°F. sealed Merc thermost calibration never changes. Gray enamel standard approved weatherproof box case. 2¾x 2¼x7¾". Average shipping weight: 2 lbs.

62F1722. 1-9 NET Each...**43.00**

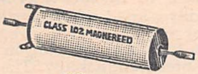
10 up Each...**35.50**

SAVE TIME! At Newark—fast, efficient service always!

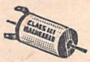
MAGNECRAFT RELAYS

MAGNEREED RELAYS

- **FAST SWITCHING**
- **PERMANENTLY SEALED**
- **SENSITIVE OPERATION**



101



102

A new approach to relay design. Pre-adjusted gold contacts hermetically sealed inside a glass capsule in an atmosphere of inert gas. Contacts are actuated magnetically by a coil around the sealed capsule. They are easily adaptable to mtg. configurations as well as grouping to meet multipole switching requirements. Contact combination: SPST, normally open. Operating time: less than 1 millisec. Release time: less than ½ millisec.

Class 101 Miniature

Contacts: Gold; rated 12VA at .250 amps max. or 100VAC max. Nom. power: 200 mw. Life expectancy: Max. rating—5 million cyc., ½ max. rating—20 million cyc. Size: 7⁄16" dia. x 1½" L. Wt. 2 oz.

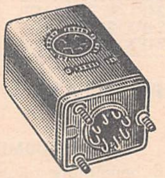
Stock No.	Type	Operate I	Volts	Ohms	1-9	10-24	25-49	50-99	100-249
56F625	W101X-1	46MA	6V	100	5.47	4.92	4.65	4.38	4.10
56F626	W101X-2	30MA	12V	250	5.47	4.92	4.65	4.38	4.10
56F627	W101X-3	2MA	24V	500	6.42	5.78	5.46	5.14	4.81
56F628	W101X-4	9MA	......	2500	7.09	6.38	6.03	5.67	5.32

Class 102 Standard Types

Contacts: Gold; Rated 15 VA at 1 amp max. or 250 VAC max. Nom. power 100 mw. Life expectancy: Max. rating—20 million cyc., ½ max. rating—100 million cyc., low load (1⁄10 amp at 12 V)—200 million cyc. Size: ⅝" dia. x 3¼". Wt.: 3 oz.

56F629	W102X-1	32 MA	......	100	3.57	3.21	3.03	2.86	2.68
56F630	W102X-2	23 MA	6V	200	3.57	3.21	3.03	2.86	2.68
56F631	W102X-3	14.5MA	12V	500	3.57	3.21	3.03	2.86	2.68
56F632	W102X-4	10 MA	24V	2000	3.75	3.37	3.19	3.00	2.81
56F633	W102X-5	4.6MA	......	5000	4.51	4.06	3.83	3.61	3.38

HERMETICALLY SEALED RELAYS
4PDT SMALL AC-DC TYPES



Hermetically sealed enclosure housing Class 22 telephone type relay with 14 pin glass insulated solder terminal header. Silver alloy contacts, 5 amp rating. Three 6-32 threaded mounting studs on 15⁄16x13⁄16" centers. Size: 17⁄16x1⅝x211⁄16". Wt.: 7 oz.

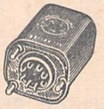
AC Voltage Actuated

Stock No.	Type	Coil Volts	Coil Ohms	1-9	10-24	25-49	50-99	100-249
56F607	W22AHSX32	115V	500	17.30	15.57	14.71	13.84	12.98

DC Voltage Actuated

56F608	W22HSX144	6V	20	17.00	15.30	14.45	13.60	12.75
56F609	W22HSX145	12V	80	17.00	15.30	14.45	13.60	12.75
56F610	W22HSX146	24V	375	17.05	15.35	14.49	13.64	12.79
56F611	W22HSX147	110V	8000	18.03	16.23	15.33	14.42	13.52

MINIATURE DC TYPES



Hermetically sealed enclosure housing a miniature telephone type relay. High compression, glass insulated solder terminal header. 5 amp. silver alloy contacts. Three 6-32 threaded mtg. studs on 15⁄16x13⁄16" centers. Size: 1⅝x1¾x21⁄16". Wt.: 6 oz.

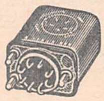
4PDT DC Voltage Actuated

Stock No.	Type	Coil V or I	Coil Ohms	1-9	10-24	25-49	50-99	100-249
56F620	W11HSX321	6V	25	15.92	14.33	13.53	12.74	11.94
56F621	W11HSX322	12V	100	15.97	14.37	13.57	12.78	11.98
56F622	W11HSX323	24V	400	15.97	14.37	13.57	12.78	11.98
56F623	W11HSX324	110V	9000	17.06	15.35	14.50	13.65	12.80

DPDT DC Current Actuated

56F624	W11HSX325	5 MA	10000	13.70	12.33	11.65	10.96	10.28

SUB-MINIATURE DC TYPES



Hermetically sealed enclosure housing Class 33 telephone type relay with high compression, glass insulated solder terminal. 5 amp silver alloy contacts. Three 4-40 tapped mtg. holes on ½x1" centers. Size: 31⁄32x111⁄32x141⁄64". Wt., 3 oz.

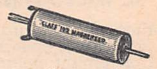
DPDT S-8 Hook Terminal

Stock No.	Type	Coil Volts	Coil Ohms	1-9	10-24	25-49	50-99	100-249
56F612	W33HSX177	6V	17	13.21	11.89	11.23	10.57	9.91
56F613	W33HSX178	12V	75	13.21	11.89	11.23	10.57	9.91
56F614	W33HSX179	24V	280	13.26	11.93	11.27	10.61	9.95
56F615	W33HSX180	110V	6500	13.87	12.48	11.79	11.10	10.40

4PDT S-14 Hook Terminal

56F616	W33HSX181	6V	17	16.65	14.99	14.15	13.32	12.49
56F617	W33HSX182	12V	75	16.65	14.99	14.15	13.32	12.49
56F618	W33HSX183	24V	280	16.70	15.03	14.20	13.36	12.53
56F619	W33HSX184	110V	6500	17.36	15.62	14.76	13.89	13.02

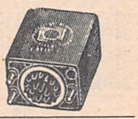
● *NEW* CLASS 103 STANDARD TYPES



Overall length: 3½"; glass length: 2⅛. Outside diameter: ½". Contact combinations; single pole, double through. Contact gold-rated 10 watts resistive load 1 ampere or 250 VAC maximum. Operating time less than 1 millisecond, release time less than 1 millisecond. Contact bounce 2 milliseconds. Nominal power 100 mW. *I in MA. Weight 3 oz.

Stock No.	Type	Operate I*	Operate V	Ohms	1-9	10-24	25-49	50-99	100-249
56F450	W103X-8	32	....	100	6.32	5.69	5.37	5.06	4.74
56F451	W103X-9	23	6	200	6.60	5.94	5.61	5.28	4.95
56F452	W103X-10	14.5	6	500	7.13	6.42	6.06	5.70	5.35
56F453	W103X-11	7.5	12	2000	7.87	7.08	6.69	6.30	5.90
56F454	W103X-12	4.6	24	5000	8.04	7.28	6.88	6.47	6.07

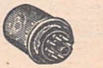
● *NEW* CLASS 11HS MINIATURE TYPE



Class 11 minature relay with 20 pin high compression glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 NC-2 threaded mounting studs on ½x113⁄32" centers. Weight 6 oz.

Stk. No.	Type	Voltage	Res.	Watt	1-9	10-24	25-49	50-99	100-249
56F455	W11HSX-326	6VDC	13	2.5	19.91	17.92	16.92	15.93	14.93
56F456	W11HSX-327	12VDC	56	2.5	19.91	17.92	16.92	15.93	14.93
56F457	W11HSX-328	24VDC	280	2.5	19.96	17.96	16.97	15.97	14.97
56F458	W11HSX-329	110VDC	5000	2.5	20.18	18.16	17.15	16.14	15.14

● *NEW* CLASS 88HP OCTAL STANDARD TYPE



High reliability relay with standard 8-pin octal. plug. Silver alloy contacts, 4 ampere rating. Weight, 5 oz. Hermetically sealed. 121⁄32" diameter x 211⁄32" in height.

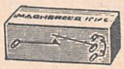
DPDT

Stk. No.	Type	Volt.	Res.	Watt.	1-9	10-24	25-49	50-99	100-249
56F658	W88AHPX-4	6VAC	....	3VA	8.59	7.73	7.30	6.87	6.44
56F659	W88AHPX-5	12VAC	....	3VA	8.59	7.73	7.30	6.87	6.44
56F660	W88AHPX-6	24VAC	....	3VA	8.64	7.78	7.34	6.91	6.48
56F661	W88AHPX-7	115VAC	....	3VA	8.79	7.91	7.47	7.03	6.59

DIRECT CURRENT ACTUATED

56F662	W88HPX-3	6VDC	25	1.5W	8.19	7.37	6.96	6.55	6.14
56F697	W88HPX-4	12VDC	100	1.5W	8.19	7.37	6.96	6.55	6.14
56F698	W88HPX-5	24VDC	400	1.5W	8.24	7.42	7.00	6.59	6.18
56F699	W88HPX-6	110VDC	8000	1.5W	9.29	8.36	7.90	7.43	6.97

● *NEW* CLASS 101 MINIATURE TYPE RELAYS



SPST-1½"L, ½"W, 9⁄16"H. DPST-1½"L, 1½" W, 9⁄16"H. Contacts single pole-single throw, normal open or double pole-single throw normal open. Gold contacts rated at 12VA at .250 amp max. or 100VAC max. Operating time less than 1 millisecond. Release time less than ½ millisecond. Nominal power 200mW. Wt. 1 oz.

Stk. No.	Type	Volt	Ohm	Cont.	1-9	10-24	25-49	50-99	100-249
56F459	W101PCX-5	6VDC	65	SPST	7.58	6.82	6.44	6.06	5.68
56F460	W101PCX-6	12VDC	250	SPST	7.65	6.88	6.50	6.12	5.74
56F461	W101PCX-7	24VDC	1000	SPST	7.79	7.01	6.62	6.23	5.84
56F462	W101PCX-8	8.0MADC	5000	SPST	8.41	7.57	7.14	6.73	6.31
56F463	W101PCX-9	6VDC	40	DPST	10.60	9.54	9.01	8.48	7.95
56F464	W101PCX-10	12VDC	150	DPST	10.64	9.58	9.04	8.51	7.98
56F465	W101PCX-11	24VDC	650	DPST	10.72	9.64	9.11	8.58	8.04
56F466	W101PCX-12	8.0MADC	5000	DPST	11.40	10.26	9.69	9.12	8.55

● *NEW* CLASS 102 STANDARD TYPE RELAYS

Single pole, single throw 2¼"L, 21⁄32"W, 11⁄16"H. Double pole, single throw 2¼"L, 1¼"W, 13⁄16"H. Contacts combinations SP normally open or DPST normally open. Operating time less than 1 millisecond. Release time ½ millisecond. Contacts Gold-rated 15VA at 1 amp max or 250 VAC max. Weight 3 oz.

56F467	W102PCX-1	6VDC	100	SPST	7.07	6.36	6.01	5.66	5.30
56F468	W102PCX-2	12VDC	400	SPST	7.15	6.44	6.08	5.72	5.36
56F469	W102PCX-3	24VDC	1500	SPST	7.22	6.50	6.14	5.77	5.42
56F470	W102PCX-4	6.5MADC	5000	SPST	7.89	7.10	6.71	6.31	5.92
56F471	W102PCX-5	6VDC	50	DPST	9.22	8.30	7.84	7.38	6.92
56F472	W102PCX-6	12VDC	200	DPST	9.31	8.38	7.91	7.45	6.98
56F473	W102PCX-7	24VDC	800	DPST	9.38	8.44	7.97	7.50	7.04
56F474	W102PCX-8	9.0MADC	5000	DPST	10.04	9.04	8.53	8.03	7.53

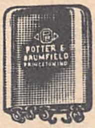
● *NEW* CLASS 103 LARGE STANDARD TYPE RELAYS

Single pole-double throw 2¼"L, 211⁄32"W, 11⁄16"H. Double pole-double throw 2½"L, 1¼"W, 13⁄16"H. Contact combination SPDT or DPDT. Gold contacts rated 10 watts resistive load, 1 amp or 250 VAC max. Operating time less than 1 millisecond. Release time less than 1 millisecond. Contact bounce 2 milliseconds maximum on release. Nominal power 100mW. Wt. 3 oz.

56F475	W103PCX-1	6VDC	100	SPDT	10.70	9.63	9.10	8.56	8.03
56F476	W103PCX-2	12VDC	400	SPDT	10.77	9.67	9.15	8.62	8.08
56F477	W103PCX-3	24VDC	1500	SPDT	10.84	9.76	9.21	8.67	8.13
56F478	W103PCX-4	6.5VDC	5000	SPDT	11.50	10.35	9.78	9.20	8.63
56F479	W103PCX-5	6VDC	50	DPDT	15.95	14.36	13.56	12.76	11.96
56F480	W103PCX-6	12VDC	200	DPDT	15.99	14.39	13.59	12.79	11.99
56F481	W103PCX-7	24VDC	800	DPDT	16.07	14.46	13.66	12.86	12.05
56F482	W103PCX-8	9.0MADC	5000	DPDT	16.76	15.08	14.25	13.41	12.57

Potter & Brumfield RELAYS

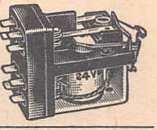
SC MICRO-MINIATURE PERMANENT MAGNET D.C. RELAY


POTTER & BRUMFIELD PRINCETON, IND.

High shock/vibration relay conforms with standard crystal-case relay dimensions and circuitry. Coil circuit polarized; positive terminal marked with red dot. Mounting: Plug-in for printed circuit or receptacle*; shoulder bracket** with two 0.014''x0.136'' holes on 1.062'' centers: mounting plate*** DD-plain case w/hook end solder terminals. **** 24-40 Studs. 54" ctrs. Weight: 3/4 oz. Gold-flashed palladium contacts rated at 2 amps., 28 VDC. Size: 0.795"x0.359"x0.890" above the chassis. DPDT

Stk. No.	Type	Mtg.	VDC	1-24	25-50	51-99	100-249
24FX1360	SC11D	*	6	15.75	14.96	14.18	11.03
24FX1361	SC11D	*	12				
24F1280	SC11D	*	24				
24FX1363	SC11DA	**	6				
24FX1364	SC11DA	**	12				
24F1281	SC11DA	**	24				
24F1282	SC11DB	***	24				
24FX1386	SC11DC	****	24				
24FX1387	SC11DD	****	24				

AB APPLIANCE RELAY



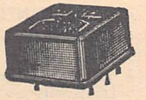
For appliance and general purpose applications where rugged construction, long life and quiet operation are required. All units have DPDT silver contacts rated at 10 amps. Mounting: 2 #8-32 tapped holes on 1¼" centers. Weight: 5 oz. Size: 3" L. x 1 13/32" W. x 1 15/16" H. A.C. models U.L. Listed.

Stock No.	Mfr. Type	Coil Volts	1-24	25-50	51-99	100-249
24F1121	AB11AY	115 VAC	5.30	5.04	4.77	3.71

SOCKET FOR PLUG-IN SC RELAYS

Stk. No.	Type	Description	1-99	100-up per 100
29FX729	54A20730	Socket	.45	22.50

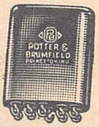
TYPE FL MICRO-MINIATURE LATCHING RELAY



Hermetically sealed relay. Particularly designed for use in printed circuit applications. The terminals are plug-in pins to afford fast interchangeability. The FL relay's ability to remain firmly latched in either armature position without applied coil power is ideal for use in equipment with long "on" times. The coil resistance is 10,000 ohms per coil. The transfer time is .5 millisecond maximum. The terminals are arranged in a grid layout of multiples of 0.1". The insulating materials used are Teflon, Kel-F and glass. Weight: .75 ounces. DPDT silver contacts rated at 3 amps. Size: 1.1x.925x.485".

Stock No.	Mfr. Type	Coil Volts	1-24	25-50	51-99	100-249
24F1286	FL11D	6 VDC	18.00	17.10	16.20	12.60
24F1287	FL11D	12 VDC				
24F1288	FL11D	24 VDC				

SL MAGNETIC LATCHING D.C. RELAY

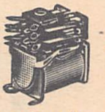

POTTER & BRUMFIELD PRINCETON, IND.

Dual coil latching relay for low power, high shock/vibration uses. Requires connections to both coils or a reversing power source applied to the two coils in series. Operates on 1 watt, 3-ms pulses to either coil. Remaining specifications identical to SC. All DPDT.

Stk. No.	Type	Mtg.	VDC	1-24	25-50	51-99	100-249
24FX1373	SL11D	*	6	17.25	16.39	15.53	12.08
24F1283	SL11D	*	24				
24FX1377	SL11DA	**	12				
24F1284	SL11DA	**	24				
24FX1379	SL11DB	***	6				
24FX1380	SL11DB	***	12				
24F1285	SL11DB	***	24				
24FX1388	SL11DC	****	24				
24FX1389	SL11DD	****	24				

TELEPHONE TYPE RELAYS

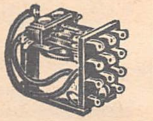
MG SUBMINIATURE TELEPHONE TYPE



Relay for aircraft, computer and other applications requiring good shock and vibration resistance. Open and dust cover (MG17DP) models. Weight: Open—1.2 oz., Dust cover—2.0 oz. Mounting: Open—Four tapped No. 3-48 holes on 3/8x3/8'' centers. Dust cover—plug-in header for Amphenol receptacle #57-20140. Stock No. 42F193. Silver contacts rated at 2 amps. Size Open 1 1/16" L. x 1 1/16" W. x 1¼" H.; Dust cover 1 47/64" L. x 13/16" W. x 2 7/64" H.

Stock No.	Type	Coil V.	Action	1-24	25-50	51-99	100-249
24F1101	MG11D	12 VDC	DPDT	5.20	4.94	4.68	3.64
24F1102	MG11D	24 VDC	DPDT	5.20	4.94	4.68	3.64
24F1104	MG17D	6 VDC	4PDT	6.95	6.60	6.26	4.87
24F1105	MG17D	12 VDC	4PDT	6.95	6.60	6.26	4.87
24F1106	MG17D	24 VDC	4PDT	6.95	6.60	6.26	4.87
24F1110	MG17DP	24 VDC	4PDT	11.55	10.97	10.40	8.09
24F1111	MG17DP	110 VDC	4PDT	12.15	11.54	10.94	8.51

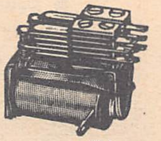
KM SUBMINIATURE RELAYS



Subminiature relay for use where size and weight are critical factors. Simple to install and wire into circuit. Silver contacts rated at 2 amps. Terminals are solder lug type. Mounting: No. 2-56 tapped core with locating boss. Size: 1⅛"Lx35/64"Wx53/64"H. Wt., 1 oz.

Stk. No.	Type	VDC	Action	1-24	25-50	51-99	100-249
24F1268	KM11D	6	DPDT	3.70	3.52	3.33	2.59
24F1269	KM11D	12	DPDT	3.70	3.52	3.33	2.59
24F1270	KM11D	24	DPDT	3.70	3.52	3.33	2.59
24F1271	KM14D	6	3PDT	4.25	4.04	3.83	2.98
24F1272	KM14D	12	3PDT	4.25	4.04	3.83	2.98
24F1273	KM14D	24	3PDT	4.25	4.04	3.83	2.98

MH MINIATURE TELEPHONE RELAY

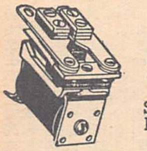


DC Models withstand 0.065'' double amplitude vibrations from 10-55 cps. Sealed AC's operate with built-in rectifier. 4.5-ma current actuated, 10,000 ohm coil. Mtg. MHIIL has #6-32 stud, 11/32'' long locating boss. Other open relays have 4, #3-48 holes on 3/8" ctrs. Sealed units have 3, #6-32 studs, 7/16" long on 1¼x½" ctrs. Weight Sealed: 5 oz.; open: 2½ oz. Silver contacts rated at 5 amps except † 3 amps. **Herm. sealed. Size Open: 1 17/32"L. x ¾"W. x 1⅜"H.

Stk. No.	Mfr. Type	Contacts	Coil V	1-24	25-50	51-99	100-249
24F1115	MH11L†	DPDT	10.000 Ohms	5.45	5.18	4.92	3.82
24F1118	MH11LM**†	DPDT	10.000 Ohms	9.20	8.74	8.28	6.44
24F1113	MH17D	4PDT	6 VDC	5.45	5.18	4.92	3.82
24FX1296	MH17D	4PDT	12 VDC	5.45	5.18	4.92	3.82
24F620	MH17D	4PDT	24 VDC	5.45	5.18	4.92	3.82
24FX1297	MH17DM**	4PDT	12 VDC	11.00	10.45	9.90	7.70
24F622	MH17DM**	4PDT	24 VDC	11.00	10.45	9.90	7.70
24FX1298	MH23D	6PDT	24 VDC	6.85	6.51	6.17	4.80
24FX1299	MH23D	6PDT	110 VDC	7.30	6.94	6.57	5.11

POWER TYPE RELAYS

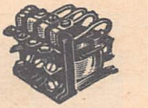
MB MINIATURE DC POWER CONTACTOR



Designed for very high current applications. Switches 60 amps with SPST, normally open, double break silver contacts. Mounting: Four #3-48 holes on 3/8x3/8" centers. Weight: 2 oz. Solder terminals. Size: 1⅝" L. x 27/32" W. x 1⅜" H.

Stock No.	Mfr. Type	Coil VDC	1-24	25-50	51-99	100-249
24F612	MB3D	12	5.50	5.23	4.95	3.85
24F613	MB3D	24	5.50	5.23	4.95	3.85
24F614	MB3D	110	5.90	5.61	5.31	4.13

PM SERIES AC POWER RELAYS



PM series relays are rated at 16 amperes (or 1 H.P.) at 115 volts, 50/60 cycles resistive. This heavy-duty AC power relay is insulated with molded phenolic. These are 4PDT relays with silver-cadmium-oxide contacts. Terminals are screw type with No. 8-32 BH screw. Wt., 14 oz. Size: 2 21/32"W, 3 23/64"L, 2 17/32"H.

Stock No.	Mfr. No.	Coil Volts	1-24	25-50	51-99	100-249
24F1430	PM17AY	6V	12.35	11.73	11.12	8.65
24F1431	PM17AY	12V	12.35	11.73	11.12	8.65
24F1432	PM17AY	24V	12.35	11.73	11.12	8.65
24F1433	PM17AY	115V	12.35	11.73	11.12	8.65
24F1434	PM17AY	230V	12.75	12.11	11.48	8.93

RELAYS Potter & Brumfield

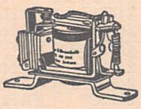
POWER TYPE RELAYS, Cont.

ABC MEDIUM POWER RELAYS

Dust cover enclosed AB relay. Used with small motors, industrial controls and similar applications. All relays have DPDT silver contacts rated at 10 amps. Snap-on terminals packed with each relay. Mounting: One #8-32 stud 3/8" long. Weight: 7 oz. Size: 2 25/32" L. x 1 31/64" W. x 2 3/32" H. All A.C. Models U.L. Listed.

Stock No.	Mfr. Type	Coil Volts	1-24	25-50	51-99	100-249
24F1128	ABC11AY	24 VAC	6.40	6.08	5.76	4.48
24F1129	ABC11AY	115 VAC	6.40	6.08	5.76	4.48
24FX1301	ABC11D	24 VDC	6.30	5.99	5.67	4.41
24F1131	ABC11D	110 VDC	6.80	6.46	6.12	4.76

MR MEDIUM DUTY POWER RELAY



Designed for small motors and appliances. Contacts rated at 8 amps except * rated at 10 amps. Mounting: Two 5/32" dia. holes on 2 5/8" centers for 1 and 3 poles and 2 1/4" centers for 2 pole relay. Size: 2 31/32x2 1/8x1 3/4". Weight: 4 ozs.

6 and 24 Volts AC

Stock No. 6v.AC	Stock No. 24v.AC	Mfrs. Type	Action	Normal Pos.	1-24	25-50	51-99	100-249
24F1157	24F1158	MR3A	SPST*	Open	3.85	3.66	3.47	2.70
24F541	24F1159	MR5A	SPDT	....	3.45	3.28	3.11	2.42
24F543	24F1160	MR11A	DPDT	....	4.85	4.61	4.37	3.40

115 Volts AC

24F506	....	MR3A	SPST*	Open	3.85	3.66	3.47	2.70
24F509	....	MR5A	SPDT	....	3.45	3.28	3.11	2.42
24F511	....	MR11A	DPDT	....	4.85	4.61	4.37	3.40
24F536	....	MR14A	3PDT	....	5.80	5.51	5.22	4.06

230 Volts AC

24F534	....	MR5A	SPDT	....	3.85	3.66	3.47	2.70
24F535	....	MR11A	DPDT	....	5.25	4.99	4.73	3.68

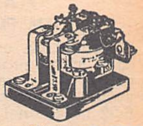
6, 12 and 24 Volts DC

Stk. No. 6v.DC	Stk. No. 12v.DC	Stk. No. 24v.DC	Mfrs. Type	Action	Nor. Pos.	1-24	25-50	51-99	100-249
24F1164	....	24F1166	MR3D	SPST*	Open	3.50	3.33	3.15	2.45
24F550	24F1167	24F1168	MR5D	SPDT	....	3.20	3.04	2.88	2.24
24F551	24F1169	24F1170	MR11D	DPDT	....	4.60	4.37	4.14	3.22
....	24F1171	....	MR14D	3PDT	....	5.45	5.18	4.91	3.82

110 Volts DC

24FX1315	....	....	MR11D	DPDT	....	5.10	4.85	4.59	3.57
24FX1316	....	....	MR14D	3PDT	....	5.95	5.65	5.36	4.17

PR HEAVY-DUTY POWER RELAY

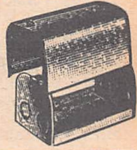


Extra rugged, fast-acting power relay with full-floating movable contact carrier to provide ample contact wipe and pressure. For industrial control applications, motor loads up to 1 HP or heater loads up to 25 amps. Terminals are heavy duty screw type. Mounting: Two 3/16" dia. holes on 1 7/8" centers. Silver contacts rated at 25 amps. Size: max. w/out aux. contacts. 3 3/8" L. x 2 7/16" W. x 2 1/2" H. All except PR11AL5 are U/L listed. Weight, 11 ozs.

Stk. No.	Type	Action	Coil V.	1-24	25-50	51-99	100-249
24F1132	PR3AY	SPST	6 VAC	4.15	3.94	3.74	2.91
24F1133	PR3AY	Nor. Open	24 VAC	4.15	3.94	3.74	2.91
24F500	PR3AY	Double	115 VAC	4.15	3.94	3.74	2.91
24F530	PR3AY	Break	230 VAC	4.50	4.28	4.05	3.15
24F1135	PR5AY	SPDT	12 VAC	4.35	4.13	3.92	3.05
24F1136	PR5AY	SPDT	24 VAC	4.35	4.13	3.92	3.05
24F503	PR5AY	SPDT	115 VAC	4.35	4.13	3.92	3.05
24F531	PR5AY	SPDT	230 VAC	4.75	4.51	4.28	3.33
24F1137	PR7AY	DPST	6 VAC	4.90	4.66	4.41	3.43
24F539	PR7AY	DPST	24 VAC	4.90	4.66	4.41	3.43
24F504	PR7AY	DPST	115 VAC	4.90	4.66	4.41	3.43
24F1139	PR7AY	DPST	230 VAC	5.35	5.08	4.82	3.75
24F1140	PR11AY	DPDT	6 VAC	6.45	6.13	5.81	4.52
24F538	PR11AY	DPDT	24 VAC	6.45	6.13	5.81	4.52
24F505	PR11AY	DPDT	115 VAC	6.45	6.13	5.81	4.52
24F532	PR11AY	DPDT	230 VAC	6.95	6.60	6.26	4.87
24F1141	†PR11AL5	DPDT	6 VAC	8.15	7.74	7.34	5.71
24F1144	†PR11AL5	DPDT	115 VAC	8.15	7.74	7.34	5.71
24F1147	PR3DY	SPST	110 VDC	4.75	4.51	4.28	3.33
24F579	PR5DY	SPDT	12 VDC	4.35	4.13	3.92	3.05
24F1148	PR5DY	SPDT	110 VDC	4.95	4.70	4.46	3.47
24F1150	PR7DY	DPST	24 VDC	4.90	4.66	4.41	3.43
24F1151	PR7DY	DPST	110 VDC	5.50	5.23	4.95	3.85
24F586	PR11DY	DPDT	6 VDC	6.45	6.13	5.81	4.52
24F1152	PR11DY	DPDT	12 VDC	6.45	6.13	5.81	4.52
24F578	PR11DY	DPDT	24 VDC	6.45	6.13	5.81	4.52
24F577	PR11DY	DPDT	110 VDC	7.05	6.70	6.35	4.94

†DPDT main contacts rated at 20 amps with SPDT auxiliary contacts rated at 5 amps.

PR COVER-35DO13

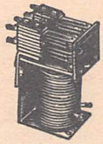


A sheet steel base with aluminum cover all finished in zinc gray baked enamel with 4 knockouts for 1/2" conduit. Mounting: 3 No. 10 holes on 1 7/8x4 1/8" centers.

Stock No.	1-24	25-50	51-99	100-249
24FX1318	3.00	2.85	2.70	2.10

PLATE CIRCUIT RELAYS

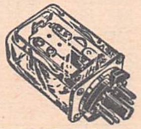
GB LOW COST PLATE CIRCUIT RELAY



115 milliwatts for single pole, 275 milliwatts for 4 pole. (See GA Relay for similar voltage-actuated models.) Silver contacts rated at 5 amps. Mounting: No. 8-32 tapped core and locating half-punch. 2 15/32x1 23/32x1 1/16". Weight: 5 ozs.

Stk. No.	Type	Action	Ohms	Ma.	1-24	25-50	51-99	100-249
24FX1319	GB5D	SPDT	2500	6.8	3.45	3.28	3.11	2.42
24FX1320	GB5D	SPDT	5000	4.8	3.60	3.42	3.24	2.52
24FX1321	GB5D	SPDT	10.000	3.4	4.10	3.90	3.69	2.87
24F1177	GB11D	DPDT	2500	7.0	4.85	4.61	4.37	3.40
24F1178	GB11D	DPDT	5000	5.0	4.95	4.70	4.46	3.47
24F1179	GB11D	DPDT	10,000	3.53	5.50	5.23	4.95	3.85
24F1181	GB17D	4PDT	5000	7.4	5.95	5.65	5.36	4.17
24F1182	GB17D	4PDT	10,000	5.25	6.40	6.08	5.76	4.48

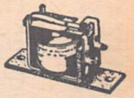
KCP ENCLOSED PLATE CIRCUIT RELAY



Silver contacts rated at 2 amps. Current actuated. Sensitivity: 125 milliwatts per pole. Mounting: Standard octal plug; eight pins for KCP5 and 11, 11 pins for KCP14. Clear plastic case. 1 13/32x1 13/32x2" high. Wt., 3 ozs.

Stk. No.	Type	Action	Ohms	Ma.	1-24	25-50	51-99	100-249
24F489	KCP5	SPDT	2500	7.2	5.90	5.61	5.31	4.13
24F490	KCP5	SPDT	5000	5.0	6.00	5.70	5.40	4.20
24F491	KCP5	SPDT	10,000	3.6	6.40	6.08	5.76	4.48
24F492	KCP11	DPDT	2500	10.0	6.30	5.99	5.67	4.41
24F496	KCP11	DPDT	5000	7.2	6.40	6.08	5.76	4.48
24F497	KCP11	DPDT	10,000	5.0	6.80	6.46	6.12	4.76
24F493	KCP14	3PDT	2500	12.3	7.75	7.36	6.98	5.43
24F494	KCP14	3PDT	5000	8.7	7.85	7.46	7.07	5.50
24F495	KCP14	3PDT	10,000	6.1	8.25	7.84	7.43	5.78

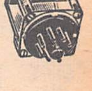
LB LOW COST PLATE CIRCUIT RELAY



Current sensitive relays designed to operate on a few milliwatts DC. Sensitivity 200 milliwatts. Silver contacts rated at 5 amps. Two 3/16" holes on 2 7/32" centers. 2 21/32x1 1/4x1 3/8". Weight: 2 ozs.

Stk. No.	Type	Action	Ohms	Ma.	1-24	25-50	51-99	100-249
24F570	LB5	SPDT	2500	9.0	2.45	2.33	2.21	1.72
24F571	LB5	SPDT	5000	6.3	2.65	2.52	2.39	1.86
24F572	LB5	SPDT	10,000	4.5	2.85	2.71	2.57	2.00

"P" CASE — CLEAR RESISTANT PLASTIC



For mounting rectifiers, capacitors, or combinations.

Stock No.	Type	Plugs	1-24	25-50	51-99	100-249
24FX1322	35D070	8 pin	.55	.52	.50	.39
24FX1323	35D072	11 pin	.70	.67	.63	.49

PW HERMETICALLY SEALED RELAY

POTTER & BRUMFIELD
PW5DS

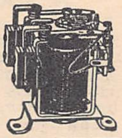
A miniature tube sensitive relay available in voltage or current actuated models. Sensitivity: Voltage: 175 mw.; current: 40 mw. Precision, light weight relay with 10g vibration to 500 cps. Silver SPDT contacts rated at 2 amps. Mounting: Standard 7-pin miniature tube base. Weight: 1 oz. Size: 1 11/16" high above socket, .765" dia.

Stk. No.	Type	Volts	Ohms	Ma.	1-24	25-50	51-99	100-249
24F556	PW5DS	6VDC	202	....	10.25	9.74	9.23	7.18
24F555	PW5DS	12VDC	810	....	10.25	9.74	9.23	7.18
24F557	PW5DS	24VDC	3240	....	10.25	9.74	9.23	7.18
24F558	PW5LS	....	5000	2.8	10.60	10.07	9.54	7.42
24F559	PW5LS	....	10,000	2.0	11.00	10.45	9.90	7.70

Potter & Brumfield RELAYS

PLATE CIRCUIT and SENSITIVE RELAYS

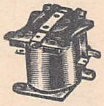
LM PLATE CIRCUIT RELAY



Operates on only 100 mw. per pole. Medium cost high quality relay with silver contacts rated at 5 amps. Pull-in adjustable by tail spring adjusting screw. Mounting: Two No. 6-32 holes on $1\frac{13}{16}$'' centers. DC only. (See KL for voltage actuated models.) $2\frac{3}{16}$x$2\frac{1}{4}$x$2\frac{1}{2}$". Weight: 5 ozs.

Stk. No.	Type	Action	Ohms	Ma.	1-24	25-50	51-99	100-249
24F562	LM5	SPDT	2500	6.3	3.90	3.71	3.51	2.73
24F563	LM5	SPDT	5000	4.5	4.10	3.90	3.69	2.87
24F564	LM5	SPDT	10,000	3.2	4.40	4.18	3.96	3.08
24F567	LM11	DPDT	2500	9.0	5.55	5.27	5.00	3.89
24F568	LM11	DPDT	5000	6.3	5.75	5.46	5.18	4.03
24F569	LM11	DPDT	10,000	4.5	6.30	5.99	5.67	4.41

RS5D LIGHT WEIGHT, SENSITIVE RELAY



Low cost, sensitive relay for current or voltage applications. Mounting: Two No. 4-40 holes on $\frac{3}{4}$x$\frac{5}{8}$" diagonal centers. Weight: 1.5 ozs. SPDT bar palladium contacts rated at 2 amps. Size: 1x$1\frac{11}{64}$x$1\frac{5}{16}$" high.

Stk. No.	V.DC	Ohms	Ma.	1-24	25-50	51-99	100-249
24F1173	6	335	....	2.60	2.47	2.34	1.82
24F1198	12	1350		2.75	2.61	2.48	1.93
24F1174	....	2500	5.0	2.85	2.71	2.57	2.00
24F1175	....	5000	3.5	3.15	2.99	2.84	2.21
24F1176	....	10,000	2.5	3.60	3.42	3.24	2.52

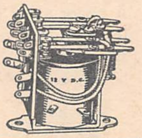
SM SUPER MIDGET RELAY

POTTER & BRUMFIELD
SM5DS

Both current and voltage actuated models available. 75 mw. sensitivity for current actuated models. Hermetically sealed. SPDT silver-rhodium contacts rated at 250 ma. Mounting: Sealed-Standard 7-pin miniature tube socket. Wt.: 1 oz. Size: $1\frac{11}{16}$" above chassis, .765" dia.

Stk. No.	Type	VDC	Ohms	Ma.	1-24	25-50	51-99	100-249
24F602	SM5DS	6	80		6.25	5.94	5.63	4.38
24F607	SM5DS	12	360					
24F603	SM5DS	24	900					
24F604	SM5LS		5000	3.9	6.55	6.22	5.90	4.59
24F606	SM5LS		10,000	2.7	7.00	6.65	6.30	4.90

KL MULTIPLE CONTACT RELAY



Highly versatile relay with extra-long coil permits double the ampere-turns; provides more power to actuate the relay and maintain good hold-down pressure. Silver contacts rated at 5 amps. Mounting: Two #6-32 holes on $1\frac{7}{16}$'' centers. Weight: 5 ozs. Size: $2\frac{1}{32}$''x$1\frac{23}{32}$''x$1\frac{15}{16}$''.

Stock No.	Type	Action	Volts	1-24	25-50	51-99	100-249
24FX1312	KL5A	SPDT	115v. AC	3.85	3.66	3.47	2.70
24F684	KL11A	DPDT	115v. AC	4.80	4.56	4.32	3.36
24F691	KL14A	3PDT	115v. AC	5.35	5.08	4.82	3.75
24F694	KL17A	4PDT	24v. AC	6.30	5.99	5.67	4.41
24F687	KL17A	4PDT	115v. AC	6.30	5.99	5.67	4.41
24F685	KL14D	3PDT	6v. DC	5.15	4.89	4.64	3.61
24F696	KL14D	3PDT	24v. DC	5.15	4.89	4.64	3.61
24F686	KL17D	4PDT	24v. DC	6.00	5.70	5.40	4.20
24F697	KL17D	4PDT	110v. DC	6.60	6.27	5.94	4.62

RELAYS FOR COMPUTER and DATA PROCESSING APPLICATION

Small. four-pole relay housed in a sturdy nylon dust cover features long life operating tolerances. Versatile 4PDT contacts switch loads from dry circuit to 3 amperes at voltage rating 30 volts DC or 115 volts. Power: 0.5 watts min. and 0.9 W nominal operation at 25°C. Resistance: .03 ohms max. at 3 amps. Temp: —45°C to +70°C. Pull-in time less than 15 ms. Size: (HWD), $1\frac{17}{64}$x$\frac{55}{64}$x$1\frac{7}{64}$".

DC

Stock No.	Type	Voltage	Ohms	1-24	25-50	51-99	100-249
24F1390	KHP17D11	6	40	4.80	4.56	4.32	3.36
24F1391	KHP17D11	12	160	4.80	4.56	4.32	3.36
24F1392	KHP17D11	24	650	4.80	4.56	4.32	3.36
24F1393	KHP17D11	48	2600	5.00	4.75	4.50	3.50
24F1394	KHP17D11	90	9000	5.60	5.32	5.04	3.92
24F1395	KHP17D11	110	11000	5.60	5.32	5.04	3.92

AC

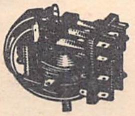
Stock No.	Type	Voltage	Ohms	1-24	25-50	51-99	100-249
24F1661	KHP17A11	6	....	5.85	5.56	5.27	4.10
24F1662	KHP17A11	12	....	5.85	5.56	5.27	4.10
24F1663	KHP17A11	24	....	5.85	5.56	5.27	4.10
24F1664	KHP17A11	115	....	6.25	5.94	5.63	4.38

P&B SOCKETS FOR ABOVE RELAYS

24F1396. Type 9HK1. Solder terminal sockets. Box of 10. **NET 6.00**
24F1397. Type 9HK2. Printed circuit sockets. Box of 10. **NET 6.00**

GENERAL PURPOSE RELAYS

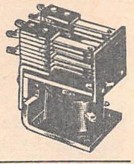
KA GENERAL PURPOSE RELAY



A small, low cost, highly efficient general purpose relay for switching small power loads like small motors, solenoids and other relays. Silver contacts rated at 5 amps. Weight: 2 ozs. "G" suffix indicates silver cadmium contacts on movables rated 10 amps. Mounting #6-32 stud with locating boss. Size: $1\frac{15}{32}$"x$1\frac{27}{32}$"x$1\frac{11}{16}$". U.L. listed.

Stock No.	Type	Action	Volt	1-24	25-50	51-99	100-249
24F545	KA5AY	SPDT	6v. AC	3.20	3.04	2.88	2.24
24FX1308	KA5AY	SPDT	12v. AC				
24F593	KA5AY	SPDT	24v. AC				
24F515	KA5AY	SPDT	115v. AC				
24F547	KA11AY	DPDT	6v AC	3.85	3.66	3.47	2.70
24FX1309	KA11AY	DPDT	12v. AC				
24F594	KA11AY	DPDT	24v. AC				
24F517	KA11AY	DPDT	115v. AC				
24FX1310	KA11AY	DPDT	230v. AC	4.25	4.04	3.83	2.98
24F549	KA14AY	3PDT	6v. AC				
24F1213	KA14AY	3PDT	12v. AC				
24F595	KA14AY	3PDT	24v. AC				
24F519	KA14AY	3PDT	115v. AC				
24F552	KA5DY	SPDT	6v. DC	3.05	2.90	2.75	2.14
24F1214	KA5DY	SPDT	12v. DC				
24F596	KA5DY	SPDT	24v. DC				
24FX1311	KA5DY	SPDT	110v. DC	3.65	3.47	3.29	2.56
24F553	KA11DY	DPDT	6v. DC	3.40	3.23	3.06	2.38
24F1215	KA11DY	DPDT	12v. DC				
24F597	KA11DY	DPDT	24v. DC				
24F554	KA11DY	DPDT	110v. DC	4.00	3.80	3.60	2.80
24F523	KA14DY	3PDT	6v. DC	3.85	3.66	3.47	2.70
24F1216	KA14DY	3PDT	12v. DC				
24F598	KA14DY	3PDT	24v. DC				
24F1217	KA14DY	3PDT	110v. DC	4.45	4.23	4.01	3.12
24F1665	KA5AG	SPDT	6v. AC	3.25	3.09	2.93	2.28
24F1666	KA5AG	SPDT	12v. AC				
24F1667	KA5AG	SPDT	24v. AC				
24F1668	KA5AG	SPDT	115v. AC				
24F1669	KA5AG	SPDT	230v. AC	3.65	3.47	3.29	2.56
24F1670	KA11AG	DPDT	6v. AC	3.95	3.75	3.56	2.77
24F1671	KA11AG	DPDT	12v. AC				
24F1672	KA11AG	DPDT	24v. AC				
24F1673	KA11AG	DPDT	115v. AC				
24F1674	KA11AG	DPDT	230v. AC	4.35	4.13	3.92	3.05
24F1675	KA14AG	3PDT	6v. AC	4.40	4.18	3.96	3.08
24F1676	KA14AG	3PDT	12v. AC				
24F1677	KA14AG	3PDT	24v. AC				
24F1678	KA14AG	3PDT	115v. AC				
24F1679	KA14AG	3PDT	230v. AC	4.80	4.56	4.32	3.36

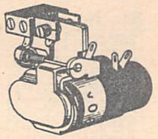
GA GENERAL ALL PURPOSE RELAY



Multiple leaf relay with a wide range of contact combinations. Used for remote power switching and mobile communications equipment. (See GB for current actuated models.) Mounting: No. 8-32 tapped core with locating boss. Weight: 3.5 ozs. Silver contacts rated at 5 amps. Size: $1\frac{1}{16}$''W x $1\frac{23}{32}$''L x $1\frac{25}{32}$''H.

Stk. No.	Type	Action	Volts	1-24	25-50	51-99	100-249
24F1183	GA11A	DPDT	6v.AC	3.35	3.18	3.02	2.35
24F1184	GA11A	DPDT	24v.AC				
24F1185	GA11A	DPDT	115v.AC				
24FX1307	GA14A	3PDT	115v.AC	4.05	3.85	3.65	2.84
24F1186	GA17A	4PDT	6v.AC	4.85	4.61	4.37	3.40
24F1187	GA17A	4PDT	12v.AC				
24F1188	GA17A	4PDT	24v.AC				
24F1189	GA17A	4PDT	115v.AC				
24F1190	GA11D	DPDT	6v.DC	3.35	3.18	3.02	2.35
24F1191	GA11D	DPDT	12v.DC				
24F1192	GA11D	DPDT	24v.DC				
24F1193	GA11D	DPDT	110v.DC	3.80	3.61	3.42	2.66
24F1194	GA17D	4PDT	6v.DC	4.85	4.61	4.37	3.40
24F1195	GA17D	4PDT	12v.DC				
24F1196	GA17D	4PDT	24v.DC				
24F1197	GA17D	4PDT	110v.DC	5.30	5.04	4.77	3.71

SS SUPER SENSITIVE RELAY



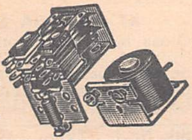
Model SS5D. 10 mw. sensitivity. Dual coils with balanced armature on needle-point bearings for precision instruments and bridge circuits. May be used as a differential relay. SPDT silver contacts rated at 2 amps. Coil 10,000 ohms 1 ma. Mounting: Two No. 6-32 holes on $\frac{23}{32}$'' centers. Wt., $3\frac{1}{2}$ ozs. $1\frac{3}{4}$x$1\frac{5}{16}$x$1\frac{11}{16}$".

Stk. No.	1-24	25-50	51-99	100-249
24F609	12.60	11.97	11.34	8.82

RELAYS Potter & Brumfield

GENERAL PURPOSE RELAYS

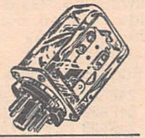
GP "PIC & BUILD" KIT



"Pic & Build" kit of separate coils and switches. Units can be combined to produce twenty different relays and design different sensitivities or switches for different contact arrangements. Mtg: permits rapid changing of coils for #8-32 tapped core and locating half punch. Wt: Av. 4 ozs.. Silver contacts rated at 5 amps.

Stock No.	Mfr's Type	Item	1-24	25-50	51-99	100-249
24F1200	GPA	6v. AC Coil	1.65	1.57	1.49	1.16
24F1201	GPA	12v. AC Coil	1.65	1.57	1.49	1.16
24F1203	GPA	115v. AC Coil	1.65	1.57	1.49	1.16
24F1211	GP11	DPDT Switch	1.70	1.62	1.53	1.19
24F1212	GP17	4PDT Switch	2.95	2.80	2.66	2.07

5 AMP KRP ENCLOSED-VOLTAGE ACTUATED



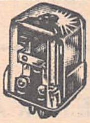
Versatile, multi-contact relay enclosed in clear plastic dust cover. (See KCP for current actuated models.) Mounting: Standard 8 pin octal for KRP-5 & 11; 11 pin for KRP14. Silver contacts rated at 5 amps. Weight: 3 ozs. Size: 1 13/32"x 1 13/32"x2".

Stock No.	Mfr's Type	Coil Volts	Action	1-24	25-50	51-99	100-249
24F522	KRP5A	6v. AC	SPDT	5.45	5.18	4.91	3.82
24F524	KRP5A	24v. AC	SPDT	5.45	5.18	4.91	3.82
24F520	KRP5A	115v. AC	SPDT	5.45	5.18	4.91	3.82
24F548	KRP11A	6v., AC	DPDT	6.05	5.75	5.45	4.24
24F1223	KRP11A	12v. AC	DPDT	6.05	5.75	5.45	4.24
24F525	KRP11A	24v. AC	DPDT	6.05	5.75	5.45	4.24
24F518	KRP11A	115v. AC	DPDT	6.05	5.75	5.45	4.24
24FX1324	KRP11A	230v. AC	DPDT	6.45	6.13	5.81	4.52
24F1224	KRP14A	6v. AC	3PDT	7.50	7.13	6.75	5.25
24F1225	KRP14A	12v. AC	3PDT	7.50	7.13	6.75	5.25
24F526	KRP14A	24v. AC	3PDT	7.50	7.13	6.75	5.25
24F527	KRP14A	115v. AC	3PDT	7.50	7.13	6.75	5.25
24F1226	KRP5D	6v. DC	SPDT	5.40	5.13	4.86	3.78
24FX1325	KRP5D	12v. DC	SPDT	5.40	5.13	4.86	3.78
24F1227	KRP5D	24v. DC	SPDT	5.40	5.13	4.86	3.78
24FX1326	KRP5D	110v. DC	SPDT	6.00	5.70	5.40	4.20
24F680	KRP11D	6v., DC	DPDT	6.00	5.70	5.40	4.20
24F683	KRP11D	12v. DC	DPDT	6.00	5.70	5.40	4.20
24F528	KRP11D	24v. DC	DPDT	6.00	5.70	5.40	4.20
24F682	KRP11D	110v. DC	DPDT	6.60	6.27	5.94	4.62
24F1228	KRP14D	6v. DC	3PDT	7.45	7.08	6.71	5.22
24F1229	KRP14D	12v. DC	3PDT	7.45	7.08	6.71	5.22
24F679	KRP14D	24v. DC	3PDT	7.45	7.08	6.71	5.22
24FX1327	KRP14D	110v. DC	3PDT	8.05	7.65	7.25	5.64

10 AMP KRP ENCLOSED-VOLTAGE ACTUATED

Stock No.	Mfr's Type	Coil Volts	Action	1-24	25-50	51-99	100-249
24FX1330	KRP5AG	6v. AC	SPDT	5.55	5.27	5.00	3.89
24FX1331	KRP5AG	24v. AC	SPDT	5.55	5.27	5.00	3.89
24FX1332	KRP5AG	115v. AC	SPDT	5.55	5.27	5.00	3.89
24FX1333	KRP11AG	6v. AC	DPDT	6.25	5.94	5.63	4.38
24FX1334	KRP11AG	12v. AC	DPDT	6.25	5.94	5.63	4.38
24FX1335	KRP11AG	24v. AC	DPDT	6.25	5.94	5.63	4.38
24FX1336	KRP11AG	115v. AC	DPDT	6.25	5.94	5.63	4.38
24F1696	KRP11AG	230v. AC	DPDT	6.65	6.32	5.99	4.66
24FX1337	KRP14AG	6v. AC	3PDT	7.80	7.41	7.02	5.46
24FX1338	KRP14AG	12v. AC	3PDT	7.80	7.41	7.02	5.46
24FX1339	KRP14AG	24v. AC	3PDT	7.80	7.41	7.02	5.46
24FX1340	KRP14AG	115v. AC	3PDT	7.80	7.41	7.02	5.46
24FX1343	KRP5DG	24v. DC	SPDT	5.50	5.23	4.95	3.85
24FX1344	KRP5DG	110v. DC	SPDT	6.10	5.80	5.49	4.27
24FX1345	KRP11DG	6v. DC	DPDT	6.20	5.89	5.58	4.34
24FX1346	KRP11DG	12v. DC	DPDT	6.20	5.89	5.58	4.34
24FX1347	KRP11DG	24v. DC	DPDT	6.20	5.89	5.58	4.34
24FX1348	KRP11DG	110v. DC	DPDT	6.80	6.46	6.12	4.76
24FX1349	KRP14DG	6v. DC	3PDT	7.75	7.36	6.98	5.43
24FX1350	KRP14DG	12v. DC	3PDT	7.75	7.36	6.98	5.43
24F1359	KRP14DG	24v. DC	3PDT	7.75	7.36	6.98	5.43
24FX1351	KRP14DG	110v. DC	3PDT	8.35	7.93	7.52	5.85

KRP-N LIGHT IN RELAY

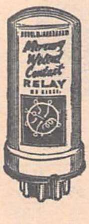


Plug-in relay has built-in lamp, which lights when relay coil is energized. Operates on 1.2 watts DC or 2 volt-amps AC. DPDT silver cadmium contacts rated at 10 amps, 3PDT arrangement. Lamp: AC 6 to 230 volts, DC 6 to 110 volts. Enclosure: clear cellulose acetate. Dim: 2"H x 1 13/32" square. 3 oz.

Stock No.	Type	Volts	1-24	25-50	51-99	100-249
24F1435	KRP11AN	6v. AC	7.15	6.79	6.44	5.01
24F1436	KRP11AN	12v. AC	7.15	6.79	6.44	5.01
24F1437	KRP11AN	24v. AC	7.15	6.79	6.44	5.01
24F1438	KRP11AN	115v. AC	7.15	6.79	6.44	5.01
24F1439	KRP11AN	230v. AC	7.55	7.17	6.80	5.29
24F1440	KRP11DN	6v. DC	7.10	6.75	6.39	4.97
24F1441	KRP11DN	12v. DC	7.10	6.75	6.39	4.97
24F1442	KRP11DN	24v. DC	7.10	6.75	6.39	4.97
24F1443	KRP11DN	110v. DC	7.70	7.32	6.93	5.39

SPECIAL PURPOSE RELAYS

IM MERCURY-WETTED CONTACT RELAYS



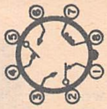


Fig. A

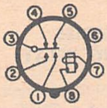


Fig. B

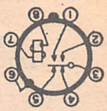


Fig. C

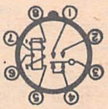


Fig. D

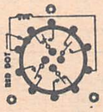


Fig. E

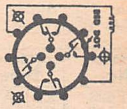


Fig. F

Designed for long high speed versatility of operation; computing systems, data processing, missile control, etc. Glass capsule contains 2 sets of contacts with mercury reservoir. Hermetically sealed in hydrogen. Rating—500V-54; 250 VA contact protection. Timing—Contact speed up to 100 operations/second; 60 operations—2 and 4 capsule—3 Mi/sec.; 4 Mi/sec.—2 capsule; 5 Mi/sec. —4 capsule. Resistance 25-50 milliohms. Dielectric—Double buffer coils. 1000V-60cy. Shock resistance—Will withstand 10G's 10-500 cps.

SINGLE CAPSULE—Single Coils

Stock No.	Type	Ohms	Fig.	1-9	10-24	25-99
24F1680	JM1-109-12	130	B	14.05	10.96	10.26
24F1681	JM1-112-11	500	A	14.05	10.96	10.26
24F1682	JM1-114-11	700	A	14.05	10.96	10.26
24F1683	JM1-114-12	700	B	14.05	10.96	10.26
24F1684	JM1-118-11	2500	A	14.30	11.54	10.80
24F1685	JM1-119-11	4000	A	8.15	8.15	8.15
24F1686	JM1-120-11	7000	A	14.80	11.54	10.80
24F1687	JM1-121-11	11000	A	14.80	11.54	10.80
24F1688	JM1-123-11	25000	A	14.80	11.54	10.80

SINGLE CAPSULE—Dual Coil

Stock No.	Type	Ohms	Fig.	1-9	10-24	25-99
24F1689	JM1-405-51	(1) 700 (2) 3300	C	16.20	12.64	11.83

DOUBLE CAPSULE—Single Coil

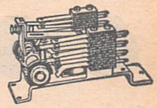
Stock No.	Type	Ohms	Fig.	1-9	10-24	25-99
24F1690	JM2-111-22	700	D	22.80	17.78	16.64
24F1691	JM2-115-22	5000	D	22.80	17.78	16.64

FOUR CAPSULE—Single Coil

Stock No.	Type	Ohms	Fig.	1-9	10-24	25-99
24F1692	JM4-114-41	1400	E	38.00	29.64	27.74
24F1693	JM4-114-42*	1400	F	38.00	29.64	27.74
24F1694	JM4-118-41	6500	E	38.00	29.64	27.74
24F1695	JM4-119-42*	10000	F	38.00	29.64	27.74

*Hook Solder Terminals.

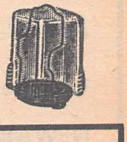
AP RATCHET IMPULSE RELAY



Compact unit for applications requiring on-off or reversing action on alternate impulses. Operates on 60 ms. pulses. Intermittent duty. Silver contacts rated at 5 amps. Mounting: Three 5/32" dia holes on 3 3/8"x7/8" triangular centers. Weight: 7 ozs. Size 2 5/16"x2 1/4"x3 3/4".

Stock No.	Mfr's Type	Action	Coil Volts	1-24	25-50	51-99	100-249
24F1231	AP11A	DPDT	6v. AC	8.70	8.27	7.83	6.09
24F1232	AP11A	DPDT	12v. AC	8.70	8.27	7.83	6.09
24F1233	AP11A	DPDT	24v., AC	8.70	8.27	7.83	6.09
24F1234	AP11A	DPDT	115v. AC	9.15	8.69	8.24	6.41
24F1235	AP17A	4PDT	230v. AC	9.15	8.69	8.24	6.41
24F1238	AP17A	4PDT	24v. AC	10.50	9.98	9.45	7.35
24F1239	AP17A	4PDT	115v. AC	10.50	9.98	9.45	7.35
24F1241	AP11D	DPDT	6v. DC	8.70	8.27	7.83	6.09
24F1243	AP11D	DPDT	24v. DC	8.70	8.27	7.83	6.09
24F1247	AP17D	4PDT	24v. DC	10.50	9.98	9.45	7.35
24F1248	AP17D	4PDT	110v. DC	11.15	10.59	10.04	7.81

KCP-KRP HOLD DOWN SPRING



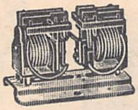
Type 9-KR-15. Insures mounting of relay in any position. Fits all KCP and KRP plug-in relays. Stainless steel spring can be moved aside for relay removal and installation. Mounting: Two 5/32" dia. holes on 1 5/16" centers.
24FX1358. NET, box of 50.............................. **5.00**

Potter and Brumfield manufactured a wide variety of relays for every application. For specific information write us your requirements. We will be happy to quote.

ELECTRONIC RELAYS AND CONTROLS

POTTER AND BRUMFIELD GENERAL PURPOSE RELAYS

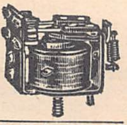
KB SERIES LATCHING RELAY



Dual coil relay for latching, memory work or overlord applications. Operates on monetary impulse to either coil. Silver contacts rated at 5 amps except * 10 amps. Mtg.: Two $\frac{5}{32}$" dia. holes on $1\frac{3}{8}$" centers. Wt.: 6 ozs. Size: $2\frac{15}{16}$"x $1\frac{25}{32}$"x$2\frac{3}{32}$". AC relay with 5 amp contacts U.L. listed.

Stock No.	Mfr's Type	Action	Coil Volts	1-24	25-50	51-99	100-249
24F629	KB17AY	4PDT	6 AC	10.50	9.98	9.45	7.35
24F617	KB17AY	4PDT	12 AC	10.50	9.98	9.45	7.35
24F631	KB17AY	4PDT	115 AC	10.50	9.98	9.45	7.35
24F1249	KB17AG	4PDT	24 AC*	10.60	10.07	9.54	7.42
24F1250	KB17AG	4PDT	115 AC*	10.60	10.07	9.54	7.42
24F1252	KB23AY	6PDT	115 AC	12.60	11.97	11.34	8.82
24F632	KB17D	4PDT	6 DC	9.45	8.98	8.51	6.62
24F618	KB17D	4PDT	12 DC	9.45	8.98	8.51	6.62
24F633	KB17D	4PDT	24 DC	9.45	8.98	8.51	6.62
24F619	KB17D	4PDT	110 DC	10.65	10.12	9.59	7.46
24FX1355	KB17DG	4PDT	24 DC	9.65	9.17	8.69	6.76

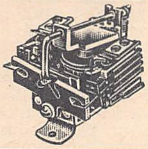
KT ANTENNA SWITCHING RELAY



Glass base insulation to minimize RF losses. Used to switch common transmitter-receiver antenna using 300-ohm line. Silver contacts rated at 5 amps. Mounting: 6-32 stud. Weight: 1.5 oz. Size: $1\frac{5}{8}$"Lx$1\frac{1}{4}$"Wx$1\frac{11}{16}$"H.

Stk. No.	Type	Coil V.	Action	1-24	25-50	51-99	100-249
24F1275	KT11A	115AC	DPDT	3.70	3.52	3.33	2.59
24F1277	KT11D	12DC	DPDT	3.70	3.52	3.33	2.59

PC ALTERNATE PULSE RELAY

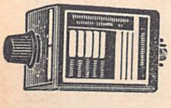


Conventional armature relay operated by 60-ms pulses. Armature actuates phenolic rocker to transfer contacts between alternate positions. For on-off or alternate mode switching. Gold-flashed silver cadmium oxide $7\frac{1}{2}$-amp. contacts. Mtg.: Two $\frac{5}{32}$'' diam. holes on $2\frac{5}{8}$'' centers. Wt., 5 oz. $2\frac{31}{32}$Lx $2\frac{1}{16}$Wx$2\frac{5}{64}$''H.

Stk. No.	Type	Action	Coil V.	1-24	25-50	51-99	100-249
24F636	PC11A	DPDT	115 AC	5.50	5.23	4.95	3.85
24F638	PC17A	4PDT	24 AC	7.60	7.22	6.84	5.32
24F639	PC17A	4PDT	115 AC	7.60	7.22	6.84	5.32
24F641	PC11D	DPDT	24 DC	5.35	5.08	4.82	3.75
24F643	PC17D	4PDT	24 DC	7.45	7.08	6.71	5.22

SYRACUSE ELECTRONICS

TRANSISTORIZED TIME DELAY RELAYS



The TR-302 is a rugged sub-miniature, light weight time delay relay. Infinitely variable over the specified range, with extremely high repetitive accuracy unattainable by other means. Accuracy: Better than 0.2% of time setting. Contact arrangement: Double pole double throw. Contact Rating: 5 amperes resistive load at 115 volts AC. Power Consumption, $\frac{1}{3}$ of a watt operate. Momentary or maintained contact. Versatile mounting; Plug-in, panel mount. etc. No warm up period. No tubes to replace. Integral or remote time adjustment. Overall Size: 2"x2"x$2\frac{3}{4}$".

Stock No.	Type	Volts	Time Delay	NET
58F543	TR-302	115 VAC	(0.12-15 secs.)	74.40
58F544	TR-302	115 VAC	(0.25-30 secs.)	73.60

Stock No.	Type	Volts	Time Delay	NET
58F545	TR-302	28 VDC	(0.12-15 secs.)	76.80
58F546	TR-302	28 VDC	(0.25-30 secs.)	81.20

TRANSISTORIZED PHOTOELECTRIC CONTROLLER

Type PE601. The circuit is composed of a transistor amplifier with a power supply for the light source and amplifier. Designed with a sensitivity control to compensate for loss of sensitivity. Relay: DPDT isolated contacts. Minimum signal time: .010 secs. 115 VAC 50-60 cycles. Size: 2x2x$2\frac{3}{4}$. Wt. 1 lb.

58F547. NET each........ **58.40**

Type PL60. Light Source Heads with 6' cable.

Type PR60. Receiver Heads with 6' cable.

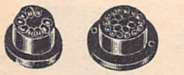
58F548. NET per set........ **23.50**

VACUUM TUBE ELECTRONIC TIMER

Type HC-100. This unit offers a precise predetermined time delay or a predetermined time interval. Time delay 1.5-30 sec. This time delay is accurately controlled and is infinitely variable over the specified range. Consists of one electronic tube (6J5) and a sensitive plug in relay. To vary the time, a potentiometer is integrally mounted on the unit. Accuracy: ±2%. Contact arrangement: Single pole double throw. Power Consumption: 5 volt amperes. 115 VAC 50-60 cycles. Size: $4\frac{1}{2}$"W.x6"L.x3"D.

58F549. NET each........ **37.00**

ELECTRONIC ENGINEERING COMPANY
NEW RELAY ADAPTER SOCKETS



New AS Series features dual insulated contacts for each pin on header. Accepts all terminal types: solder hook, straight pin, flattened, pierced, etc. Contacts: beryllium copper, .020" thick, gold or silver plated, double insulated contacts for each pin on header. Molded epoxy insert. Dielectric strength 400 V/Mil at 20°C. Operating temperature: —100°F min. +350°F max. Designed for application on long-run production tests. Check your stock needs now . . . and order from units listed below!

Stock No.	Type	1-4	5-9	10-24	25-49	50-99	100-Up
24F2500	AS-101-8	19.00	17.10	15.20	13.30	11.40	9.50
24F2501	AS-104-14	22.00	19.80	17.60	15.40	13.20	11.00
24F2502	AS-105-7	18.50	16.65	14.80	12.95	11.10	9.25
24F2503	AS-109-8	19.00	17.10	15.20	13.30	11.40	9.50
24F2504	AS-112-14	22.00	19.80	17.60	15.40	13.20	11.00
24F2505	AS-114-14	22.00	19.80	17.60	15.40	13.20	11.00
24F2506	AS-116-20	25.00	22.50	20.00	17.50	15.00	12.50
24F2507	AS-117-8	19.00	17.10	15.20	13.30	11.40	9.50
24F2508	AS-118-16	23.00	20.70	18.40	16.10	13.80	11.50
24F2509	AS-124-8	19.00	17.10	15.20	13.30	11.40	9.50
24F2510	AS-127-20	25.00	22.50	20.00	17.50	15.00	12.50

Stock No.	Type	1-4	5-9	10-24	25-49	50-99	100-Up
24F2511	AS-137-20	25.00	22.50	20.00	17.50	15.00	12.50
24F2512	AS-138-11	20.50	18.45	16.40	14.35	12.30	10.25
24F2513	AS-151-8	19.00	17.10	15.20	13.30	11.40	9.50
24F2514	AS-152-14	22.00	19.80	17.60	15.40	13.20	11.00
24F2515	AS-153-20	25.00	22.50	20.00	17.50	15.00	12.50
24F2516	AS-163-10	20.00	18.00	16.00	14.00	12.00	10.00
24F2517	AS-185-9	19.50	17.55	15.60	13.65	11.70	9.75
24F2518	AS-139-10	20.00	18.00	16.00	14.00	12.00	10.00
24F2519	AS-209-8	19.00	17.10	15.20	13.30	11.40	9.50
24F2520	AS-229-14	22.00	19.80	17.60	15.40	13.20	11.00
24F2521	AS-238-8	19.00	17.10	15.20	13.30	11.40	9.50

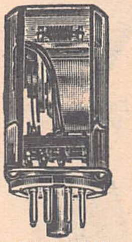
MAKE NEWARK YOUR ONE POINT SOURCE FOR ALL ELECTRONIC COMPONENTS!

Whether ordering in quantity for production or only one for a specialized use, make NEWARK your headquarters for every electronic component need. NEWARK saves you time and MONEY—get the exact part you need from an inventory of over 70,000 items!

MIDGET RELAYS

GHP AND GHH SERIES. Power required for DC relays 1 to 2 watts nominal; AC relays is 2 to 3 volt amperes nominal. Temperature range—55°C to 85°C. Insulation resistance 100 Megohms minimum. Maximum weight, 2 oz. 1 13/32x1 13/32x2 1/8" above contact chassis. Clear polystyrene case.

Stock No.	Type	Coil Resis.	Contact Cap.	Contact	1-24	25-49	50-99	100-249
24F984	GHP/1C/6VAC	4	5 amp	SPDT	5.10	4.85	4.59	3.57
24F985	GHP/1C/24VAC	63	5 amp	SPDT	5.10	4.85	4.59	3.57
24F986	GHP/1C/115VAC	1600	5 amp	SPDT	5.10	4.85	4.59	3.57
24F987	GHP/2C/6VAC	4	5 amp	DPDT	5.75	5.46	5.18	4.03
24F988	GHP/2C/24VAC	63	5 amp	DPDT	5.75	5.46	5.18	4.03
24F989	GHP/2C/115VAC	1600	5 amp	DPDT	5.75	5.46	5.18	4.03
24F993	GHP/3C/115VA	1600	5 amp	3PDT	7.05	6.70	6.35	4.94
24F1074	GHH/2C/24VAC	400	5 amp	3PDT	6.95	6.60	6.26	4.87
24F1075	GHH/2C/24VDC	63	10 amp	DPDT	6.05	5.75	5.45	4.24
24F1076	GHH/2C/24VDC	400	10 amp	DPDT	5.75	5.46	5.18	4.03
24F1077	GHH/2C/115VAC	1600	10 amp	DPDT	6.05	5.75	5.45	4.24
24F1078	GHH/3C/24VDC	400	10 amp	3PDT	7.25	6.89	6.53	5.08
24F1079	GHH/3C/115VAC	1600	10 amp	DPDT	7.25	6.89	6.53	5.08

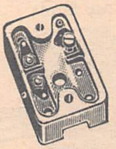


GHP, GHE SERIES

HIGH RESISTANCE PLATE RELAYS

GHE SERIES. Nominal power required for relay pull in: 1C—130 mw. 2C—260 mw. Temp. Range: —55°C to +85°C. Insulation resistance 100 megohms. Case is clear polystyrene. Size above chassis: 1 13/32x1 13/32x2 1/8". Max. wt., 2 oz.

Stk. No.	Type	Coil Resis.	Pick up ma	Contact	1-24	25-49	50-99	100-249
24F1080	GHE/1C/5000DCV	5000	5.	SPDT	5.85	5.56	5.27	4.10
24F994	GHE/2C/2500D	2500	10.	DPDT	6.15	5.84	5.54	4.31
24F995	GHE/2C/5000D	5000	7.2	DPDT	6.25	5.94	5.63	4.38
24F996	GHE/2C/10,000D	10000	5.	DPDT	6.65	6.32	5.99	4.66

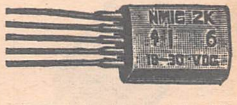


DT Series

THERMAL DELAY RELAYS

DT SERIES. Applicable wherever a time delay of 5 to 60 seconds is needed. Adjustable within range of 8 to 20 cycles per minute. Size: 13/16x1 17/64x1 57/64". Shipping weight, 2 1/2 oz.

Stock No.	Type	Coil Voltage	Contacts	1-24	25-49	50-99	100-249
24FX1057	DT/1A/115VA	115VAC	SPST-NO 2 amps	2.75	2.61	2.48	2.20
24FX1058	DT/1B/115VA	115VAC	SPST-NC 2 amps	2.75	2.61	2.48	2.20

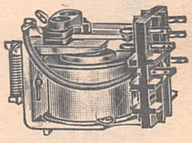


SUBMINIATURE RELAYS
.530x.392x.196

ELGIN NEOMITE SUBMINIATURE RELAYS

An Elgin "first" . . . relays sealed in a standard transistor case! Perfect for printed circuits and minature assemblies. Only .530x.392x.196". yet all do a man-sized switching job! All withstand 50 G shock test without damage, and operate within a temperature range of —55° to +85° Centigrade. Continuous duty, with all contacts rated at 25 amp. All are SPDT. Dropout is 30% to 60% of pickup ma. in table. Shipping weight, 3 oz.

Stock No.	Type	Ohms	DCV	Ma.	1-24	25-49	50-99	100-249
24F960	NM1C50	50	3-5	44	24.00	22.80	21.60	19.20
24F961	NM1C200	200	6-10	22				
24F962	NM1C500	500	9-15	14				
24F963	NM1C1K	1000	12-21	10				
24F964	NM1C2K	2000	18-30	7				



GH SERIES

GENERAL PURPOSE RELAYS

GHA SERIES. General purpose 5 and 10 amp contacts engineered for high efficiency at low cost. DC relays need 1 to 2 watts nom. and AC relays 2 to 3 volt-amps nom. For all GH series; insulation resistance is 100 megohms; dielectric strength is 500 volts RMS between non-connected terminals and terminal to ground. Mounted with 1 6-32 screw. 2 oz. Max. size: 1.732"L.x.937"W.x1.1"H. Wt., 4 oz.

Stock No.	Type	Coil Resistance	Coil Voltage	Contacts		1-24	25-49	50-99	100-249
24F1018	GHA/1C/ 6VAC	4 ohms	6VAC	SPDT	5 amps	3.05	2.90	2.75	2.14
24F1019	GHA/1C/ 24VAC	63 ohms	24VAC	SPDT	5 amps	3.05	2.90	2.75	2.14
24F1020	GHA/1C/115VAC	1600 ohms	115VAC	SPDT	5 amps	3.05	2.90	2.75	2.14
24F1021	GHA/1C/220VAC	5000 ohms	220VAC	SPDT	5 amps	3.55	3.37	3.20	2.49
24F1022	GHA/2C/ 6VAC	4 ohms	6VAC	DPDT	5 amps	3.55	3.37	3.20	2.49
24F1023	GHA/2C/ 24VAC	63 ohms	24VAC	DPDT	5 amps	3.55	3.37	3.20	2.49
24F1024	GHA/2C/115VAC	1600 ohms	115VAC	DPDT	5 amps	3.55	3.37	3.20	2.49
24F1026	GHA/3C/ 6VAC	4 ohms	6VAC	3PDT	5 amps	4.05	3.85	3.65	2.84
24F1028	GHA/3C/115VAC	1600 ohms	115VAC	3PDT	5 amps	4.05	3.85	3.65	2.84
24F1031	GHA/1C/ 24VDC	400 ohms	24VDC	SPDT	5 amps	3.05	2.90	2.75	2.14
24F1032	GHA/2C/ 6VDC	25 ohms	6VDC	DPDT	5 amps	3.35	3.18	3.02	2.35
24F1033	GHA/2C/ 12VDC	100 ohms	12VDC	DPDT	5 amps	3.35	3.18	3.02	2.35
24F1034	GHA/2C /24VDC	400 ohms	24VDC	DPDT	5 amps	3.35	3.18	3.02	2.35
24F1036	GHA/3C/ 12VDC	100 ohms	12VDC	3PDT	5 amps	3.75	3.56	3.38	2.63
24F1037	GHA/3C/ 24VDC	400 ohms	24VDC	3PDT	5 amps	3.75	3.56	3.38	2.63

Newark can supply all your Advance Relays needs. To save time and money make Newark Your Complete One Point Stock Source.

GHB SERIES

Stock No.	Type	Coil Resistance	Coil Voltage	Contacts		1-24	25-49	50-99	100-249
24F1008	GHB/2C/ 6VAC	4 ohms	6VAC	DPDT	10 amps	4.05	3.85	3.65	2.84
24F1009	GHB/2C/ 24VAC	63 ohms	24VAC	DPDT	10 amps	4.05	3.85	3.65	2.84
24F1010	GHB/2C/115VAC	1600 ohms	115VAC	DPDT	10 amps	4.05	3.85	3.65	2.84
24F1011	GHB/3C/ 6VAC	4 ohms	6VAC	3PDT	10 amps	4.60	4.37	4.14	3.22
24F1015	GHB/2C/ 24VDC	400 ohms	24VDC	DPDT	10 amps	3.80	3.61	3.42	2.66
24F1017	GHB/3C/ 24VDC	400 ohms	24VDC	3PDT	10 amps	4.40	4.18	3.96	3.08

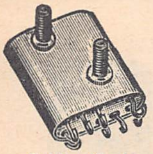
MV 7033 RELAY

Miniaturized relay, hermetically sealed for airborne equipment. Meets the Specifications of MS 24250-6 (USAF) and the test requirements of MIL-R-25018. Contact rating: 2 amps resistive at 26.5 VDC. Coil resistance 600 ohms ±10%. Max. coil voltage: 32.0 ±0.5% VDC. Pull-in voltage 18.0 VDC max. Drop-out voltage: less than 14.0 volts DC. Oper. and release time: 9 milliseconds max. Insulation resistance: coil to frame—100 megohms min. at 125°C. All other points —500 megohms, min. at 125°C. Ambient temp. —65°C to +125°C. Corrosion resistance: must withstand 50 hours salt spray test. Vibration: 10-55 CPS max. excursion of 0.10 inches double amplitude; 55-2000 CPS, 15 G's Life: 100,000 operations at 125°C and 2 amps resistive load. Size: .875H.x.797W.x.359D. Shpg. wt., 1 oz.

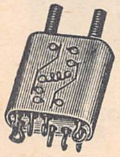
Stk. No.	1-9	10-24	25-49	50-99	100-249
24FX1956	14.50	12.76	10.44	9.14	8.63

ELGIN
ADVANCE

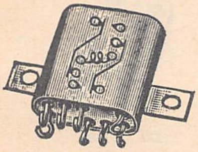
ADVANCE RELAYS



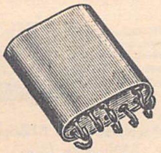
Solder-Hook Side Studs



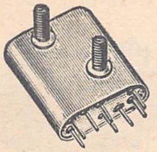
Solder-Hook Top Studs



Solder-Hook 2 Hole Bracket

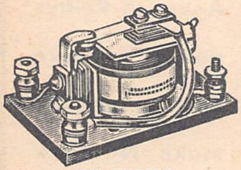


Solder-Hook Plain Can

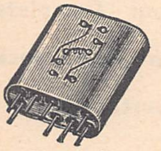


Plug-in Pin Side Studs

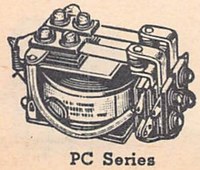
Plug-in Pin Top Studs



PV SERIES



Plug-in Pin Plain Can



PC Series

MV SERIES ROTARY ACTION RELAYS

The MV Series is available in a wide variety of terminal and mounting arrangements: plug-in plain can, with 3/16'' pins; two hole bracket, 1/8'' holes 1 1/16'' apart. Side studs 3/8'' long on 31/64'' centers 15/64'' apart; top studs 3/8'' long on 1 3/32'' centers. All are double-pole, double-throw. MV series cases, less mounting and terminals are 7/8'' high x 51/64'' wide x 23/64'' deep. Shipping weight, 3 oz.

TYPE MV2C30D.

DPDT. Electrical characteristics: coil resistance 30 ohms, maximum pull-in current 85 MA, nominal voltage 6 VDC.

Stock No.	Type	Terminal Arrangement	Mounting Arrangement	1-9	10-24	25-49	50-99	100-249	250-499
24FX1902	MV2C30D-13	Solder-hook	2-hole bracket	13.60	11.95	9.80	8.55	8.10	7.85

TYPE MV2C120D

DPDT. Electrical characteristics: coil resistance 120 ohms, maximum pull-in current 44 MA, nominal voltage 12VDC.

Stock No.	Type	Terminal Arrangement	Mounting Arrangement	1-9	10-24	25-49	50-99	100-249	250-499
24FX1908	MV2C120D-11	Solder-hook	Side studs	13.85	12.20	9.95	8.70	8.25	8.00
24FX1909	MV2C120D-12	Solder-hook	Top studs	13.85	12.20	9.95	8.70	8.25	8.00
24FX1910	MV2C120D-13	Solder-hook	2-hole bracket	13.60	11.95	9.80	8.55	8.10	7.85
24FX1915	MV2C120D-24	Plug-in pin	Plain can	13.60	11.95	9.80	8.55	8.10	7.85

TYPE MV2C600D

DPDT. Electrical characteristics: coil resistance 600 ohms, maximum pull-in current 21 MA, nominal voltage 26 VDC.

Stock	Type	Teminal Arrangement	Mounting Arrangement	1-9	10-24	25-49	50-99	100-249	250-499
24FX1916	MV2C600D-11	Solder-hook	Side studs	13.85	12.20	9.95	8.70	8.25	8.00
24FX1917	MV2C600D-12	Solder-hook	Top studs	13.85	12.20	9.95	8.70	8.25	8.00
24FX1918	MV2C600D-13	Solder-hook	2-hole bracket	13.60	11.95	9.80	8.55	8.10	7.85
24FX1919	MV2C600D-14	Solder-hook	Plain can	13.60	11.95	9.80	8.55	8.10	7.85
24FX1922	MV2C600D-23	Plug-in pin	2-hole bracket	13.60	11.95	9.80	8.55	8.10	7.85
24FX1923	MV2C600D-24	Plug-in pin	Plain can	13.60	11.95	9.80	8.55	8.10	7.85
24FX1957	MV2C600D-34	3" leads	Plug-in-Plain	13.95	12.25	10.00	8.80	8.35	8.10

TYPE MV2C1000D

DPDT. Electrical characteristics: coil resistance is 1000 ohms, maximum pull-in current is 16 MA, nominal voltage is 35 volts DC.

Stock No.	Type	Terminal Arrangement	Mounting Arrangement	1-9	10-24	25-49	50-99	100-249	250-499
24FX1926	MV2C1000D-13	Solder-hook	2-hole bracket	13.85	12.20	9.95	8.70	8.25	8.00
24FX1931	MV2C1000D-24	Plug-in pin	Plain can	13.85	12.20	9.95	8.70	8.25	8.00

TYPE MV2C2500D

DPDT. Electrical characteristics are: coil resistance 2500 ohms, maximum pull-in current 10 MA, nominal voltage 55 volts DC.

Stock No.	Type	Terminal Arrangement	Mounting Arrangement	1-9	10-24	25-49	50-99	100-249	250-499
24FX1934	MV2C2500D-13	Solder-hook	2-hole bracket	15.05	13.20	10.80	9.50	9.00	8.75
24FX1938	MV2C2500D-23	Plug-in pin	2-hole bracket	15.05	13.20	10.80	9.50	9.00	8.75
24FX1939	MV2C2500D-24	Plug-in pin	Plain can	15.05	13.20	10.80	9.50	9.00	8.75

TYPE MV2C10000D

DPDT. Electrical characteristics: coil resistance 10,000 ohms, maximum pull-in current 5 MA, nominal voltage 110 volts DC.

Stock No.	Type	Terminal Arrangement	Mounting Arrangement	1-9	10-24	25-49	50-99	100-249	250-499
24FX1950	MV2C10000D-13	Solder-hook	2-hole bracket	19.35	17.05	13.95	12.20	11.50	11.25
24FX1949	MV2C10000D-12	Solder-hook	Top studs	19.60	17.25	14.10	12.35	11.65	11.35

POWER-TRANSFER RELAYS

PV SERIES. Heavy-duty power-transfer relays for motor starting, lighting circuits and many applications. Bakelite base for mounting. Extra large binding-post terminals for heavy current load. "T" blade has two 5/16" silver cadmium oxide contacts, minimizing pitting and burning. Ample armature over travel provides excellent wiping action. Size: 3 1/4"L.x2 1/4"W.x1 5/8"H. Wt., 8 oz.

Stock No.	Type	Coil Resistance	Coil Voltage	Contacts	1-24	25-49	50-99	100-249
24F906	PV/1X/115VA	450 ohms	115VAC	SPST-NO 30 amps	7.70	7.32	6.93	6.16
24F938	PV/1Z/115VA	450 ohms	115VAC	SPDT 30 amps	8.70	8.27	7.83	6.96
24F936	PV/1X/6VD	16 ohms	6VDC	SPST-NO 30 amps	7.35	6.98	6.62	5.88
24F937	PX/1Z/6VD	16 ohms	6VDC	SPDT 30 amps	8.55	8.12	7.70	6.84

15 AMP AC AND DC

Stk. No.	Type	Coil Resistance	Coil Voltage	Cont.	1-24	25-49	50-99	100-249
24F781	PC/1C/6VA	1.6 ohms	6VAC	SPDT	3.95	3.75	3.56	3.16
24F782	PC/1C/24VA	25 ohms	24VAC	SPDT				
24F783	PC/1C/115VA	450 ohms	115VAC	SPDT				
24F786	PC/1C/24VD	250 ohms	24-28VDC	SPDT				
24F939	PC/2C/6VA	1.6 ohms	6VAC	DPDT	5.95	5.65	5.36	4.76
24F940	PC/2C/24VA	25 ohms	24VAC	DPDT				
24F913	PC/2C/115VA	450 ohms	115VAC	DPDT				
24F941	PC/2C/6VD	16 ohms	6VDC	DPDT				
24F942	PC/2C/12VD	63 ohms	12VDC	DPDT				
24F943	PC/2C/24VD	250 ohms	24-28VDC	DPDT				
24F944	PC/3C/6VA	1.6 ohms	6VAC	3PDT	8.45	8.03	7.61	6.76
24F945	PC/3C/115VA	450 ohms	115VAC	3PDT				
24F947	PC/3C/24VD	250 ohms	24-28VDC	3PDT				
24F948	PC/4C/115VA	450 ohms	115VAC	4PDT	10.95	10.40	9.86	8.76
24F788	PC/4C/220VA	2500 ohms	220VAC	4PDT	12.45	11.83	11.21	9.96
24F949	PC/4C/24VD	250 ohms	24-28VDC	4PDT	10.95	10.40	9.86	8.76

ADVANCE RELAYS

VERY SENSITIVE RELAYS

SV SERIES. Durable, dust-tight and fully adjustable. Plastic cover guards against dust and dirt. For use in DC circuits restricted to a few thousandths of a watt-power consumption. Adjustments easy with vernier screws for changing 5-milliwatt setting. 2 stationary contacts and spring tension easily changed and perm. set SPDT. 1 amp. 2$\frac{9}{16}$"L. x 2"W. x 1½"H. Shipping weight, 8 oz.

Stock No.	Type	Coil Resistance	Coil Current	1-24	25-49	50-99	100-249
24F920	SV/1C/ 1000D	1000 ohms	2.25 MA	**8.25**	**7.84**	**7.43**	**6.60**
24F922	SV/1C/ 2200D	2200 ohms	1.5 MA	**8.40**	**7.98**	**7.56**	**6.72**
24F924	SV/1C/ 5500D	5500 ohms	.95 MA	**8.75**	**8.31**	**7.88**	**7.00**
24F925	SV/1C/ 8700D	8700 ohms	.75 MA	**9.40**	**8.93**	**8.46**	**7.52**
24F926	SV/1C/14000D	14000 ohms	.6 MA	**10.10**	**9.60**	**9.09**	**8.08**
24F927	SV/1C/20000D	20000 ohms	.5 MA	**11.10**	**10.55**	**9.99**	**8.88**
24F928	SV/1C/30000D	30000 ohms	.4 MA	**11.85**	**11.26**	**10.67**	**9.48**
24F929	SV/1C/40000D	40000 ohms	.35 MA	**13.30**	**12.64**	**11.97**	**10.64**
24F776	SV/1C/ 3500D	3500 ohms	1.2 MA	**8.40**	**7.98**	**7.56**	**6.72**
24F923	SV/1C/10000D	10000 ohms	.7 MA	**9.40**	**8.93**	**8.46**	**7.52**

FEATHER-LIGHT RELAYS

MK SERIES. Ultra-small. Less than ½ cu. in. mtg. space. Plated parts. Beryllium copper armature hinges. Operating time 5 milli-sec. max. $\frac{53}{64}$"L. x $\frac{47}{64}$"W. x $\frac{51}{64}$"H. Shipping weight, 2 oz.

Stock No.	Type	Coil Resis.	Coil Voltage	Contacts*	1-24	25-49	50-99	100-249
24F931	MK/2C/ 24VD	500 ohms	24- 28VDC	DPDT 1 amp	**5.95**	**5.65**	**5.36**	**4.76**
24F932	MK/2C/5000D	5000 ohms	40- 60VDC	DPDT 1 amp	**6.95**	**6.60**	**6.26**	**5.56**
24FX1065	MK/2C/ 6VD	30 ohms	6VDC	DPDT 1 amp	**5.95**	**5.65**	**5.36**	**4.76**

POWER TRANSFER RELAYS

PG SERIES. Small size, superior for general purpose industrial power-control circuits. Efficient coil construction provides high magnetic strength for high-pressure armatures and frame design withstands shock and vibration. Contacts on short blades with excellent wiping action. Size: 1½"L. x 1⅝"W. x 1⅞"H. Shipping weight, 6 oz.

24F917	PG/2C/115VA	400 ohms	115VAC	DPDT 15 amps	**7.50**	**7.13**	**6.75**	**6.00**
24F919	PG/2C/24VD	400 ohms	24-28VDC	DPDT 15 amps	**6.90**	**6.56**	**6.21**	**5.52**
24FX1068	PG/2C/6VD	16 ohms	6VDC	DPDT 15 amps	**6.90**	**6.56**	**6.21**	**5.52**

COAXIAL SWITCHING RELAYS

CB SERIES (Formerly Series 7200/8200). Designed for switching on 52 ohm coaxial cable. Low standing-wave ratio permits use on frequencies up to 300 mc. Operates equally well in any position. Silver internal SPDT contacts supported directly from cable connectors for very low loss at VHF. Inspection port at contact end of anodized contacts permits easy access to internal contacts. 3⅞"L.x3$\frac{1}{16}$"W.x1⅞"H. Shipping weight, 11 oz.

Stock No.	Type	Coil Resis.	Coil Voltage	Contacts*	1-24	25-49	50-99	100-249
24F1006	CB/1C/115VA	280 ohms	115VAC	SPDT 5 amps	**21.00**	**19.95**	**18.90**	**16.80**
24F1007	CB/1C2C/115VA	280 ohms	115VAC	SPDT(int.) DPDT(aux.) 5 amps	**24.55**	**23.32**	**22.10**	**19.64**
24FX1061	CB/1C2C/12VD	70 ohms	12VDC	SPDT(int) DPDT(aux) 5 amps	**23.60**	**22.42**	**21.24**	**18.88**
24FX1062	CB/1C2C/24VD	280 ohms	24VDC	SPDT(int) DPDT(aux) 5 amps	**23.60**	**22.42**	**21.24**	**18.88**

MIDGET ANTENNA RELAYS

AM SERIES. Midget antenna type. For low power RF applications, such as 300 ohm circuit switching circuits. Conically shaped silver contacts. 1$\frac{15}{16}$"L. x $\frac{15}{16}$"W. x 1$\frac{9}{16}$"H. Shipping weight 6 oz.

24F795	AM/2C/115VA	1600 ohms	115VAC	DPDT 2 amps	**5.05**	**4.80**	**4.55**	**4.04**
24F796	AM/2C/ 6VD	25 ohms	6VDC	DPDT 2 amps	**4.20**	**3.99**	**3.78**	**3.36**
24F797	AM/2C/ 12VD	100 ohms	12VDC	DPDT 2 amps	**4.20**	**3.99**	**3.78**	**3.36**

TIME-DELAY RELAYS

DM SERIES. Adjustable 5.60 sec. time-delay range. The DM Series provides a delay before make. Cooling for proper recycling requires up to 10 times delay period. 3¾"L.x2⅝"W.x1⅝"H. Shipping weight, 12 oz.

24F748	DM/2C/115VA	450 ohms	115VAC	DPDT 15 amps	**14.35**	**13.63**	**12.92**	**11.48**

HIGH VOLTAGE RELAYS

HV Series. Replaces space taking std. high volt units. Will break up to 500v RMS @ 200ma. 1$\frac{29}{32}$"x2$\frac{7}{32}$"x 3$\frac{1}{16}$". Shpg. wt., 7.5 oz.

24F1081	HV1Z24D	120 ohms	24VDC	SPDT DB-DM	**17.65**	**16.77**	**15.89**	**14.12**
24F1082	HV1Z110VD	3000 ohms	110VDC	SPDT DB-DM	**18.25**	**17.34**	**16.43**	**14.60**

GENERAL PURPOSE RELAYS

MF Series. Radical lugs may be used as tie-points for some circuits. Dim: 1$\frac{3}{16}$"x1$\frac{13}{16}$"x1$\frac{11}{32}$". Shpg. wt. 2 oz.

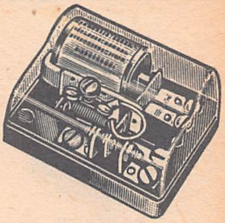
24F1083	MF/2C/24VA	63 ohms	24VAC	DPDT 5 amps	**5.60**	**5.32**	**5.04**	**4.48**
24F1084	MF/2C/115VA	1.6K ohms	115VAC	DPDT 5 amps	**5.95**	**5.65**	**5.36**	**4.72**
24F1085	MF/2C/6VD	25 ohms	6VDC	DPDT 5 amps	**5.50**	**5.23**	**4.95**	**4.40**
24F1086	MF/2C/12VD	100 ohms	12VDC	DPDT 5 amps	**5.50**	**5.23**	**4.95**	**4.40**
24F1087	MF/2C/24VD	400 ohms	24VDC	DPDT 5 amps	**5.50**	**5.23**	**4.95**	**4.40**
24F1088	MF/3C/24VA	63 ohms	24VAC	3 PDT 5 amps	**7.00**	**6.65**	**6.30**	**5.60**
24F1089	MF/3C/115VA	1.6K ohms	15VAC	3 PDT 5 amps	**7.40**	**7.03**	**6.66**	**5.92**
24F1090	MF/3C/6VD	25 ohms	6VDC	3 PDT 5 amps	**6.50**	**6.18**	**5.85**	**5.20**
24F1091	MF/3C/12VD	100 ohms	12VDC	3 PDT 5 amps	**6.50**	**6.18**	**5.85**	**5.20**
24F1092	MF/3C/24VD	400 ohms	24VDC	3 PDT 5 amps	**6.50**	**6.18**	**5.85**	**5.20**

LATCHING RELAYS

LGA Series. Eliminates cont. use of duty coil; latching mech. pos.; Dim.: 1¾"x1⅝"x3½". Wt. 5 oz.

24F1093	LGA/4C/24VA	40 ohms	24VAC	4 PDT 5 amps	**10.45**	**9.93**	**9.41**	**8.36**
24F1094	LGA/4C/115VA	1K ohms	115VAC	4 PDT 5 amps	**10.45**	**9.93**	**9.41**	**8.36**
24F1095	LGA/4C/6VD	16 ohms	6VDC	4 PDT 5 amps	**9.35**	**8.88**	**8.42**	**7.48**
24F1096	LGA/4C/12VD	63 ohms	12VDC	4 PDT 5 amps	**9.35**	**8.88**	**8.42**	**7.48**
24F1097	LGA/4C/24VD	250 ohms	24VDC	4 PDT 5 amps	**9.35**	**8.88**	**8.42**	**7.48**
24F1098	LGA/4C/110VD	5K ohms	110VDC	4 PDT 5 amps	**10.55**	**10.02**	**9.50**	**8.44**
24F1099	LGA/6C/24VA	40 ohms	24VAC	6 PDT 5 amps	**12.50**	**11.88**	**11.25**	**10.00**
24F1049	LGA/6C/115VA	1K ohms	115VAC	6 PDT 5 amps	**12.50**	**11.88**	**11.25**	**10.00**
24F1048	LGA/6C/6VD	16 ohms	6VDC	6 PDT 5 amps	**11.40**	**10.83**	**10.26**	**9.12**
24F1047	LGA/6C/12VD	63 ohms	12VDC	6 PDT 5 amps	**11.40**	**10.83**	**10.26**	**9.12**
24F1046	LGA/6C/24VD	250 ohms	24VDC	6 PDT 5 amps	**11.40**	**10.83**	**10.26**	**9.12**
24F1045	LGA/6C/110VD	5K ohms	110VDC	6 PDT 5 amps	**12.60**	**11.97**	**11.34**	**10.08**

*Contacts: rated at 115 VAC or 26.5 VDC resistive load.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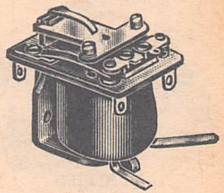
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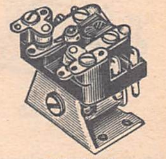
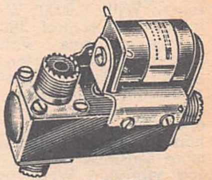
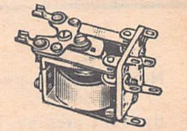
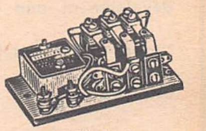
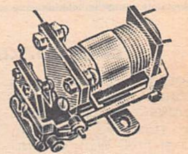
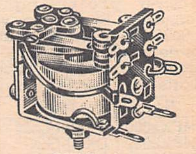

PG Series

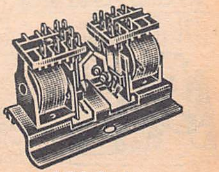

CB SERIES


AM Series

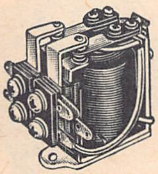

DM Series

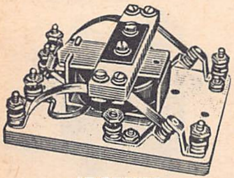

HV Series

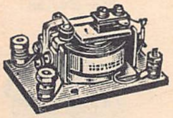

MF Series


LGA Series

ADVANCE


SP SERIES


AT SERIES


PH SERIES

SENSITIVE DC RELAYS

SP SERIES. Sensitivity 100 mw per pole. Contacts insulated between term, and gnd. and between non-connected term. to withstand 500v RMS. Contacts rated 5 amps resistive at 115VAC or 26.5VDC. Dim.: 2¼"x1"x2". Shipping weight, 4 oz.

Stock No.	Type	Coil Res.	Coil Curr.	Cont.	1-24	25-49	50-99	100-249
24F1965	SP/1C/2500D	2.5K ohms	6.3ma	SPDT	3.85	3.66	3.47	3.08
24F1966	SP/1C/5000D	5K ohms	4.5ma	SPDT	4.05	3.85	3.65	3.24
24F1967	SP/1C/10000D	10K ohms	3.2ma	SPDT	4.35	4.13	3.92	3.48
24F1968	SP/2C/2500D	2.5K ohms	9.0ma	DPDT	5.50	5.23	4.95	4.40
24F1969	SP/2C/5000D	5K ohms	6.3ma	DPDT	5.70	5.42	5.13	4.56
24F1970	SP/2C/10000D	10K ohms	4.5ma	DPDT	6.25	5.94	5.63	5.00

HEAVY DUTY ANTENNA RELAY

AT Series. For RF switching applications. ¼" dia. fine silver contacts: 10 amps resistive, 3 amps inductive at 115 VAC or 26.5 VDC. 1KW RF rating. Dim.: 1 21/32"x2 25/32"x3 19/32". Shipping weight, 12.6 oz.

Stock No.	Type	Coil Res.	Coil Voltage	Contacts	1-24	25-49	50-99	100-249
24F1971	AT/2C/115VA	400 ohms	115VAC	DPDT	13.20	12.54	11.88	10.56

POWER-TRANSFER RELAYS

PV SERIES. Heavy-duty power-transfer relays for motor starting, lighting circuits and many applications. Bakelite base for mounting. Extra large binding-post terminals for heavy current load. "T" blade has two 5/16" silver cadmium oxide contacts, minimizing pitting and burning. Ample armature over travel provides excellent wiping action. Size: 3¼"L.x2¼"W.x1⅝"H. Wt., 8 oz.

Stock No.	Type	Coil Resistance	Coil Voltage	Contacts	1-24	25-49	50-99	100-249
24F906	PV/1X/115VA	450 ohms	115VAC	SPST-NO 30 amps	7.70	7.32	6.93	6.16
24F938	PV/1Z/115VA	450 ohms	115VAC	SPDT 30 amps	8.70	8.27	7.83	6.96
24F936	PV/1X/6VD	16 ohms	6VDC	SPST-NO 30 amps	7.35	6.98	6.62	5.88
24F937	PV/1Z/6VD	16 ohms	6VDC	SPDT 30 amps	8.55	8.12	7.70	6.84

BARBER-COLMAN

Ultra-sensitive, versatile, polarized DC industrial relay. With 0.00005-W. input, can control 100 W on contacts, with proper arc suppression, giving 6,000,000 to 1 amplification factor. Selenium photo cell can drive directly, 1 millisec. operation. SPDT center off works in relation to current direction. 1.3 amp.-turns more sensitive than 2 amp.-turns. Resists 10g vibration W. twice pull-in current. Octal base. 2 5/16x1 7/16". Shpg. wt., 6¼ oz.

Newark keeps pace with current dynamic progress in research and development and leads in procuring and supplying the products you need.

SINGLE COIL (1.3 Ampere-Turns)

Stock No.	Mfr. Type	Coil Ohms	Pull-In Amps.	Pull-In Volts	uW Input	1-9	10-24	25-49
24F387	AYLZ 7300-100	13	.00173	.023	39.1	25.00	22.50	20.00
24F388	AYLZ 7301-100	54	00087	.047	40.6			
24F390	AYLZ 7303-100	140	.00054	.076	41.1			
24F391	AYLZ 7304-100	215	.00046	.100	46.3			
24F392	AYLZ 7305-100	350	.00035	.123	43.2			
24F393	AYLZ 7306-100	560	.00028	.155	42.8			
24F394	AYLZ 7307-100	900	.00022	.198	43.7			
24F395	AYLZ 7308-100	1400	.00017	.243	42.1			
24F396	AYLZ 7309-100	2300	.00014	.325	45.9			
24F397	AYLZ 7310-100	3550	.00011	.401	45.3			
24F398	AYLZ 7311-100	5650	.000093	.524	48.7			
24F426	AYLZ 7312-100	7950	.000076	.604	45.9			

SINGLE COIL (2 Ampere-Turns)

24F401	AYLZ 7325-100	13.0	.00267	.035	92.4	21.00	18.90	16.80
24F405	AYLZ 7329-100	215.0	.00071	.154	109.6			
24F407	AYLZ 7331-100	560.0	.00043	.238	101.2			
24F409	AYLZ 7334-100	2300.0	.00022	.499	108.3			
24F412	AYLZ 7337-100	7950.0	.00012	.930	108.8			

DOUBLE COIL (1.3 Ampere-Turns)

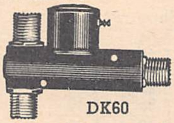
24F471	AYLZ 7358-100	940	.00034	.322	110.0	26.00	23.40	20.80
24F473	AYLZ 7360-100	2300	.00022	.507	111.6			
24F474	AYLZ 7361-100	3800	.00017	.650	111.1			

DOUBLE COIL (2 Ampere-Turns)

24F413	AYLZ 7375-100	5	.00667	.033	222.2	22.00	19.80	17.60
24F400	AYLZ 7383-100	940	.00053	.494	260.0			
24F424	AYLZ 7386-100	3800	.00026	1.000	263.0			

DOW-KEY ANTENNA ACCESSORIES

DK60 COAXIAL RELAY

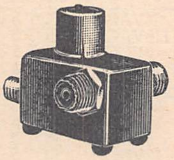

DK60

Contact pressure in transit position 50 grams; de-energized or received position, 35 grams. With external DPDT switch and receiver protecting connector. Breakdown voltage in excess of 1,000 volts RMS. Operating temp. approximately 38°C. Power consumption: AC models approx. 4 watts. DC models 3 watts. 4½x2¾x1¼". Shpg. wt., 10 oz.

No.	Type	1-4	5-9	10-24
24FX2000	DK60-G2C‡	15.65	14.87	14.09
24FX2001	DK60-G2C*			
24FX2002	DK60-G2C**			
24FX2003	DK60-G2C†			

(‡) 6 VAC Relay. (*) 6 VDC Relay.
(**) 12 VDC Relay. (†) 115 VAC Relay.

ELECTRONIC ANTENNA SWITCH



Fully electronic includes tube and will handle a full kilowatt. Requires 150 V at 5 ma and 6.3 V at .3 amps or 12.6 V at .225 amps. 2 stage triode amp, high gain, low noise level. Instantaneous recovery. Fully TVI proof. Size: 1⅜x1⅜x2¾ inches. Shpg. wt. 2 lbs.

No.	Type	1-4	5-9	10-24
24FX2004	DKC-TRM-1*	12.50	11.88	11.25
24FX2005	DKC-TR2-A†	12.50	11.88	11.25

(*) Frequency: 1.8-60 Mc. (†) Frequency: 144-148 Mc.

VHF CONNECTORS

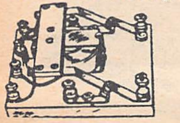
DKF-2

DK60-P

Silver plated VHF connectors. Watertight solid connection with very low loss characteristic. Model DKF-2—Locking type with precision made double male connector. Model DK-60 panel mount connector. Ouly ⅝" hole is needed for installation. No screws. Size 1⅜"x1⅜"x 2¼". Shpg. Wt. 10 oz.

No.	Type	1-4	5-9	10-24	25-49
24F999	DK60-P	.70	.67	.63	.60
24F959	DKF-2	1.25	1.19	1.13	1.06

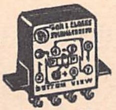
AEMCO ANTENNA RELAY



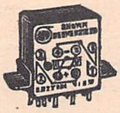
Type 51. Antenna changeover relay. For high RF switching in transmitters popular with Hams. Handles up to 1KW DPDT action. Has ¼" silver contacts spaced 2" apart. Steatite insulation. 115 volts AC coil. 3⅝x2⅞x1½". Shipping weight, 2 lbs.

24F950. NET **6.10**

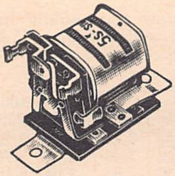
SIGMA RELAYS



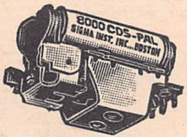
Series 32



Series 33



Series 41



Series 26

Type 22KNCC and 22JNCC. Hermetically sealed. Miniature relays for printed circuit, and missile application. Double-pole double-throw. Operating power 40 mw. Release power 5 mw. Operate temp. —65°C to +125°C. Contacts rated at 2 amps 28 VDC/120 VAC res. 22KNCC Stud mtg., 9 pin plug-in. 22JNCC 9 pin Plug-in. Size: 1"x1"x2". Shpg. wt. 4 oz.

Type 22KNCC-2500G-SIL. Coil Res. 2500 Oper. MaDC 4; Rel. MaDC 1.4

Stk. No.	1-24	25-49	50-74	75-99	100-249
24F2069	15.50	14.73	13.95	12.40	10.85

Type 22KNCC-5000G-SIL. Coil Res. 5000 Oper. MaDC 2.8; Rel. MaDC 1.0

Stk. No.	1-24	25-49	50-74	75-99	100-249
24F2070	16.00	15.20	14.40	12.80	11.20

Type 22KNCC-8000G-SIL. Coil Res. 8000 Oper. MaDC 2.3; Rel. MaDC 0.8

Stk. No.	1-24	25-49	50-74	75-99	100-249
24FX1775	16.50	15.68	14.85	13.20	11.55

Type 22KNCC-12000G-SIL. Coil Res. 12000 Oper. MaDC 1.8; Rel. MaDC .6

Stk. No.	1-24	25-49	50-74	75-99	100-249
24F2072	18.00	17.10	16.20	14.40	12.60

Type 22JNCC-5000G-SIL. Coil Res. 5000 Oper. MaDC 2.8; Rel. MaDC 1.0

Stk. No.	1-24	25-49	50-74	75-99	100-249
24F2073	15.85	15.06	14.27	12.68	11.10

Type 22JNCC-12000G-SIL. Coil Res. 12000 Oper. MaDC 1.8; Rel. MaDC 0.6

Stk. No.	1-24	25-49	50-74	75-99	100-249
24F2074	17.85	16.96	16.07	14.28	12.50

RADIO CONTROL MODEL RELAY
SERIES 26

Single-pole, double-throw, balanced armature relay with adjustments from 4 mw to 20 mw. Unenclosed 8,000-ohm model is extra rugged, designed for R/C models; uses less plate current prolonging tube life. Contact Ratings: (CDS-adjustment) 0.5 amp, at 28 v. DC/120 v. AC on silver (SIL) gold alloy (GSP) and palladium (PAL). Size: 1"x1⅞"x1¹⁄₁₆" h. Weight, 2 oz.

Type 26F8000-CDS-PAL, Coil Res. 8000 ohms. Oer. MaDC 0.7. Rel. MaDC 0.4

Stk. No.	1-24	25-49	50-74	75-99	100-249
24F351	9.75	9.26	8.78	7.80	6.83

Type 26F1000S-SIL. Coil Res. 1000 ohms. Oper. MaDC 2.3. Rel. MaD C1.1

Stk. No.	1-24	25-49	50-74	75-99	100-249
24F2088	7.80	7.41	7.02	6.24	5.46

Type 26F12000G-SIL, Coil Res. 12000 ohms. Oper. MaDC 0.9. Rel. MaDC 0.45

Stk. No.	1-24	25-49	50-74	75-99	100-249
24F2089	10.80	10.26	9.72	8.64	7.56

SIGMA SERIES 32 SUBMINIATURE RELAYS

A subminiature, DPDT, polarized magnetic latching relay. Available with either single or dual coils. Standard operating sensitivities are 50 milliwatts for a single coil relay; † 100 milliwatts for either coil of a dual coil relay. Hermetically sealed. Contact rating: 2 amp. at 28 VDC/120 VAC, resistive load for 100,000 operations minimum at +125°C. maximum. Operate time: 2 to 20 milliseconds, depending on overdrive. Operating temperature range —65°C. to +125°C. Inductance: 7 henries per 1000 ohms at 60 cycles per sec. for single coil relay; 3.5 henries per 1000 ohms at 60 cycles per sec. for dual coil relay. Vibration: 30g to 5000 cycles per sec. with no contact opening. Contact resistance: 50 milliohms, max. before use; 100 milliohms, max. after 100,000 operations at rated load. 0.8x0.4x0.9" high. Shipping weight, 4 ounces.

Stock No.	Type	Ohms	Oper.* Ma DC	Source VDC	1-24	25-49	50-74	75-99	100-249
24FX1728	32RJP-800G-SIL	800	8.0	12	23.50	22.32	21.15	18.80	16.45
24FX1730	32RJP-3100G-SIL	3100	4.0	24-28	23.50	22.32	21.15	18.80	16.45
24FX1731	32RJP-7800G-SIL	7800	2.5	....	25.00	23.75	22.50	20.00	17.50
24FX1735†	32RJPD-325GD-SIL	325	17.5	12	26.00	24.70	23.40	20.80	18.20
24FX1737†	32RJPD-1200GD-SIL	1200	9	24-28	26.50	25.17	23.85	21.20	18.55
24FX1778†	32RJD-1200GD-SIL	1200	9	24-28	26.50	25.17	23.85	21.20	18.55
24FX1788	32RJK-3100G-SIL	3100	4.0	24-28	23.50	22.32	21.15	18.80	16.45
24FX1790†	32RJKD-325GD-SIL	325	17.5	12	26.00	24.70	23.40	20.80	18.20
24FX1792	32RJKD-1200GD-SIL	1200	9.0	24-28	26.50	25.17	23.85	21.20	18.55

*Operating MaDC either polarity (for sgle. coil relays) either coil, either polarity (for dual coil relays). †Dual coil relays.

SERIES 33 RELAYS

Subminiature, hermetically sealed, double-pole double-throw, polarized relays with magnetic bias. Standard operating sensitivity is 100 milliwatts. Operation of the "33" is the same as any non-polarized relay except that the coil must be energized in one polarity only (Sigma Form Y). The relay armature normally occupies one closed position when unenergized. A coil signal of the correct polarity and magnitude transfers the armature to the other position. Removal of the signal returns the armature to the normally-closed position. The "33" is suitable for applications where compactness, thermal stability, high vibration immunity and dependable operation are required. Also available with gold alloy contacts at slight additional cost. Size: 0.8x0.4x0.9" high. Contacts rated 2 amps 28VDC/120VAC Res. Shpg. wt., 4 oz.

Stock No.	Type	Coil Res. Ohms	Oper. Ma. DC	Rel. Ma. DC	Source VDC	1-24	25-49	50-74	75-99	100-249
24F2053	33J-320-VG-SIL	320	17.8	2.5	12	19.50	18.53	17.55	15.60	13.65
24F2054	33J-1200-VG-SIL	1200	9.2	1.3	24	20.00	19.00	18.00	16.00	14.00
24F2062	33RJK-1200VG-SIL	1200	9.2	1.3	24	20.00	19.00	18.00	16.00	14.00
24F2063	33RJK-4900VG-SIL	4900	4.6	0.62	48	20.50	19.48	18.45	16.40	14.35
24F2067	33RJL-4900VG-SIL	4900	4.6	0.62	48	20.50	19.48	18.45	16.40	14.35

Type 33J is 8 pin plug-in
Type 33RJK has 8 "J" hooks and side stud mtg.
Type 33RJL has 8 "J" hooks with side flange

GENERAL PURPOSE — EXTREMELY LONG LIFE

Type 41F. Sensitivity, 40 mw "S" adj.—"G" adj., SPDT 2 amp contacts, unenclosed, screw mounting, 5 solder terminals, insulated from chassis. Size: 1¼x2¼x1⁵⁄₁₆". Shpg. Wt., 3 oz.

Stock No.	Type	Coil Res.	Oper. Ma.DC	1-24	25-49	50-74	75-99	100-249
24FX1714	41F-1000S-SIL	1000	6.5	3.85	3.66	3.47	3.08	2.70
24F295	41F-1000G-BSL	1000	14	3.50	3.32	3.15	2.80	2.45
24FX1747	41F-10000S-SIL	10000	2.0	4.25	4.04	3.83	3.40	2.98
24FX1748	41F-12000S-SIL	12000	1.8	4.55	4.32	4.10	3.64	3.19

Type 41FZ. Highly sensitive single pole AC relay. SPDT contacts rated 2 amps except * 5 amps. AC operation by shaded pole with sensitivity down to 0.06 volt-ampere, 60 cycle. 2¼x1¼x1¹⁵⁄₁₆". Shpg. Wt. 3 oz.

Stock No.	Type	Coil Resis.	Oper. VAC	Cont. Amp	1-24	25-49	50-74	75-99	100-249
24F364	41FZ-35ACS-SIL	35	5.0	2	4.00	3.80	3.60	3.20	2.80
24F365	41FZ10ACG-BSL*	10	4.0	5	3.50	3.32	3.15	2.80	2.45
24F366	41FZ-500ACS-SIL	500	19	2	4.00	3.80	3.60	3.20	2.80
24F367	41FX-200ACG-BSL*	200	18	5	3.50	3.32	3.15	2.80	2.45
24F368	41FZ-10000ACS-SIL	10,000	85	2	4.45	4.23	4.00	3.56	3.12
24F369	41FZ-5000ACG-BSL*	5,000	90	5	3.65	3.47	3.28	2.92	2.56
24F370	41FX-12000ACG-BSL*	12,000	140	5	4.15	3.94	3.73	3.32	2.91

Type 41RO. SPDT DC Relay with semi-permanent aluminum dust cover, contacts rated G adj=5 amp. S adj=2 amp., octal plug-in. Size: 1¹⁵⁄₁₆x1⁵⁄₁₆x2¹⁄₁₆". 200 mw. sensitivity except* 40 mw. sensitivity. Wt. 3 oz.

Stock No.	Type	Coil Res.	Oper. Ma.DC	1-24	25-49	50-74	75-99	100-249
24FX1715	41RO-1000G-BSL	1000	14	5.00	4.75	4.50	4.00	3.50
24FX1716	41RO-1000S-SIL*	1000	6.5	5.50	5.22	4.95	4.40	3.85
24FX1717	41RO-1000G-BSL	10000	4.5	5.35	5.08	4.81	4.28	3.75

MAKE NEWARK YOUR ONE POINT SOURCE
FOR ALL YOUR ELECTRONIC NEEDS

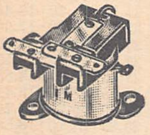
SIGMA RELAYS

Type 4F

Type 5F

Type 5JO

Type 5R


Series 11

Series 22

Type 5RJ

Series 8

8L2

8P2

Model 8RCO1A. Will operate over a range of —40°C to +75°C. 2 operations per sec. guaranteed. Peak response with tungsten light source at 2854° K is 5,000-6,000 angstroms. 5 amperes resistive load at 120V AC for 100,000 operation based on silver contact. Semi-permanent dust cover, 5 pin plug-in. Light, no-light applications such as light beam interruptions. Operate 5 ft.-candles and release 0.1 ft.-candle at 120V AC. 50-60 cps at 25°C. Size: 1½x1½x2¼". Shipping weight, 5 oz.

24FX1719. 1-24 Ea.....15.00 25-49 Ea.....14.25
50-74 Ea.....13.50 75-99 Ea.....12.00

Model 8RS01B. For applications employing a slowly changing light source. Operate 35 ft.-candles and release 0.4 ft.-candle at 120V AC, 50-60 cps at 25°C. Size: 1½x1½x2¼". Shipping weight, 5 oz.

24FX1720. 1-24 Ea.....16.00 25-49 Ea.....15.20
50-74 Ea.....14.40 75-99 Ea.....12.80

Model 8P2. Photorelay reciver for counting and controlling. Will switch 3 amp 120 volt resistive load up to twice a second. Source (below) and receiver may be up to 20 feet apart. For 110/120 VAC, 50/60 cycles. Cord and hole in base for conduit. Shpg. wt., 3½ lbs.

24F2092. NET...26.00

Model 8L2. Light source for above. For 110/120 VAC, 50/60 cycles. Cord and hole in base for conduit. Shpg. wt., 3½ lbs.

24F2093. NET...14.00

Model 8PL2. Consists of one 8L2 light source and one 8P2 photorelay receiver (above). Shpg. wt., 5½ lbs.

24F2093. NET...40.00

Newark can supply all Sigma relays.

SENSITIVE RELAYS

Type 4F. General purpose DC, SPDT, unenclosed, screw mtg., solder lug connection. 20 mw, 50 mw, sensitivity. Silver contacts. Rating: 2 amps. at 28 VDC or 120 VAC. 1½x1⅝x1 5/32". Shpg. Wt., 2¾ oz.

Stock No.	Type	Coil Resis.	Operate MaDC	Release MaDC	1-24	25-49	50-74	75-99	100-249
24F352	4F- 1000S-SIL	1000	4.5	2.0	6.05	5.75	5.45	4.84	4.24
24F353	4F- 2500S-SIL	2500	3.0	1.3	6.05	5.75	5.45	4.84	4.24
24F354	4F- 5000S-SIL	5000	2.0	0.9	6.35	6.03	5.72	5.08	4.45
24F350	4F- 8000S-SIL	8000	1.6	0.75	6.60	6.27	5.94	5.28	4.62
24FX1700	4F-10000S-SIL	10,000	1.4	0.65	6.60	6.27	5 94	5.28	4.62

Type 5F. Balanced armature, precision DC SPDT, unenclosed, screw mtg., solder lug connection. Adjust range 1 mw to 2 watts. *5 mw sensitivity, 1 amp contact rating, ** 10 mw sensitivity, 1.5 amp contact rating. Contacts rated at 28 VDC/120 VAC resistive. Size: 1¾x1 5/16x1 11/16. Shpg. wt., 6 oz.

Stock No.	Type	Coil Resis.	Operate MaDC	Release MaDC	1-24	25-49	50-74	75-99	100-249
24F355	5F- 1000S-SIL*	1000	2.3	0.8	8.25	7.84	7.43	6.60	5.78
24F356	5F- 2500S-SIL*	2500	1.4	0.5	8.25	7.84	7.43	6.60	5.78
24F357	5F- 5000S-SIL*	5000	1.0	0.4	8.80	8.36	7.92	7.04	6.16
24F358	5F-10000S-SIL*	10000	0.7	0.25	9.65	9.17	8.69	7.72	6.76
24F359	5F-16000S-SIL*	16000	0.55	0.20	10.45	9.93	9.41	8.36	7.32
24FX1706	5F-10000G-SIL**	10000	1.0	0.4	9.65	9.17	8.69	7.72	6.76

Type 5JO. Electrically equivalent to above type 5F but with hermetically sealed, octal plug-in. Size: 1⅝x1⅝x2 9/16". Shpg. Wt. 8 oz.

Stock No.	Type	Coil Res.	Oper. MaDC	Rel. MaDC	1-24	25-49	50-74	75-99	100-249
24FX1708	5JO- 1000S-SIL	1000	2.3	0.8	14.05	13.35	12.65	11.24	9.84
24FX1710	5JO- 5000S-SIL	5000	1.0	0.4	14.60	13.87	13.14	11.68	10.22
24FX1711	5JO- 8000S-SIL	8000	0.8	0.3	15.40	14.63	13.86	12.32	10.78
24FX1712	5JO-10000S-SIL	10000	0.7	0.25	15.40	14.63	13.86	12.32	10.78
24FX1713	5JO-16000S-SIL	16000	0.55	0.20	16.25	15.44	14.63	13.00	11.38

Type 5R and 5RJ. Electrically equivalent to above 5F but with semi-permanent aluminum dust cover, 5 pin plug-in. Size, 5R: 1½x1½x2¼", 5RJ: 1½x1½x2 5/16". Shpg. wt., 6½ oz. 5RJ has 5 solder terms., hermetically sealed, stud mtg. Shpg. wt., 8½ oz.

Stock No.	Type	Coil Res.	Oper. MaDC	Rel. MaDC	1-24	25-49	50-74	75-99	100-249
24FX1701	5R-5000G-SIL	5000	1.4	0.5	11.00	10.45	9.90	8.80	7.70
24FX1740	5R-1000G-SIL	1000	3.2	1.2	10.45	9.93	9.41	8.36	7.32
24FX1741	5R-10000G-SIL	10000	1.0	0.4	11.80	11.21	10.62	9.44	8.26
24FX1742	5R-10000S-SIL	10000	0.7	0.25	11.80	11.21	10.62	9.44	8.26
24FX1743	5R-16000S-SIL	16000	0.55	0.20	12.65	12.02	11.39	10.12	8.86
24FX1744	5RJ-1000G-SIL	1000	3.2	1.2	13.75	13.06	12.38	11.00	9.63
24FX1745	5RJ-5000G-SIL	5000	1.4	0.5	14.30	13.59	12.87	11.44	10.01
24FX1746	5RJ-10000G-SIL	10000	1.0	0.4	15.15	14.39	13.64	12.12	10.61

Series 11. Small low cost SPDT DC relay with silver contacts rated at 1 amp. at 28 VAC. Adjusted sensitivity is 50 mw. Uninsulated. Size: 1 7/32x1 3/16x1 1/16". Shpg. wt., 2 oz.

Stock No.	Type	Coil Resis.	Operate MaDC	1-24	25-99	100-249	250-499
24F360	11F-1000G-SIL	1000	7.0	1.75	1.66	1.57	1.49
24F361	11F-2300G-SIL	2300	4.6	1.75	1.66	1.57	1.49
24F362	11F-6000G-SIL	6000	2.9	1.95	1.85	1.75	1.66
24F363	11F-9000G-SIL	9000	2.4	2.15	2.04	1.93	1.83

SENSITIVE RELAYS TYPE 22RJ

Hermetically sealed, compact relays with silver contacts rated at 2 amps. 28 VDC or 120 VAC. Operates at sensitivities of 20 mw SPDT and 40 mw DPDT, except **, 80 mw DPDT. Size: 1" square x 1¾" high. Weight, 3.0 ounces maximum.

Stock No.	Type	Coil Res.	Oper. MaDC	Rel. MaDC	1-24	25-49	50-74	75-99	100-249
24F371	22RJC-1000G-SIL	1000*	4.5	1.5	13.00	12.35	11.70	10.40	9.10
24F372	22RJC-2500G-SIL	2500*	2.8	1.0	13.50	12.83	12.15	10.80	9.45
24F373	22RJC-5000G-SIL	5000*	2.0	0.7	14.00	13.30	12.60	11.20	9.80
24F374	22RJC-8000G-SIL	8000*	1.6	0.55	14.50	13.78	13.05	11.60	10.15
24FX1750	22RJCC-500G-SIL	500†	9.0	3.1	14.50	13.78	13.05	11.60	10.15
24F375	22RJCC-1000G-SIL	1000†	6.3	2.3	14.50	13.78	13.05	11.60	10.15
24F376	22RJCC-2500G-SIL	2500†	4.0	1.4	15.00	14.25	13.50	12.00	10.50
24F377	22RJCC-5000G-SIL	5000†	2.8	1.0	15.50	14.73	13.95	12.40	10.85
24F378	22RJCC-8000G-SIL	8000†	2.3	0.8	16.00	15.20	14.40	12.80	11.20
24FX1751	22RJCC-12000G-SIL	12000†	1.8	0.6	17.50	16.63	15.75	14.00	12.25
24F2068	22RJCC-8000W-SGP	8000**	3.2	1.1	21.25	20.19	19.13	17.00	14.88

(*)—SPDT (†)—DPDT

Type 23KOXC-1000G-SIL. Polarized DC relay, SPDT, 3 position (center off) contacts. Octal plug and stud mounting 1 19/32" sq. x 3⅞". Shpg. wt., 10 oz. *Either polarity.

Stk. No.	Coil Res.	Op. MaDC*	Rel. MaDC*	1-24	25-49	50-74	75-99	100-249
24FX1749	1000 Ohms	2.5	1.0	54.25	51.54	48.82	43.40	37.98

SIGMA RELAYS

TYPE 41R06 DC SINGLE COIL SPDT

General purpose, long life, sensitive DC relays, octal plug-in with clear plastic dust cover. 200 MW sensitivity SPDT silver Contacts rated 5 amp 28 VDC/120 VAC resistive. Size: $1\frac{5}{16}$x$1\frac{5}{16}$x$2\frac{1}{16}$". Shpg. wt., 3½ oz.

Stk. No.	Type	Coil Res.	Oper. DC Ma.	Source VDC	1-24	25-49	50-74	75-99	100-249
24FX2032	41R06-1000-G-BSL	1000	14	24	**5.00**	**4.75**	**4.50**	**4.00**	**3.50**
24FX2035	41R06-10000-G-BSL	10000	4.5	....	**5.35**	**5.08**	**4.82**	**4.28**	**3.75**

41RO6

TYPE 41R06Z AC SINGLE COIL SPDT

General purpose, shaded pole AC, sensitive relay, extreme long life, octal plug-in with clear plastic dust cover. 0.40 volt ampere 60 cycles sensitivity. SPDT silver contacts rated 5 amps. 28 VDC 120 VAC Resistive. Size: $1\frac{5}{16}$x$1\frac{5}{16}$x$2\frac{1}{16}$". Wt. 3½ oz.

Stk. No.	Type	Coil Res.	Oper. VAC	Source VAC	1-24	25-49	50-74	75-99	100-249
24FX2037	41R06Z-50-ACG-BSL	50	9	12	**5.00**	**4.75**	**4.50**	**4.00**	**3.50**
24FX2040	41R06Z-5000-ACG-BSL	5000	90	110	**5.15**	**4.89**	**4.64**	**4.12**	**3.61**

TYPE 42R06 DC SINGLE COIL DPDT

General Purpose, long life, sensitive, electromagnetic, double pole, double throw DC relay. Highly reliable and under normal circuit conditions will last for millions of operations. 200 mw sensitivity. Hinge suspension type of construction increases mechanical life with no-load on the contacts to one billion operations. Octal plug-in with clear plastic dust cover. DPDT silver contacts rated 5 amps 28 VDC/120 VAC resistive. Size: $1\frac{11}{32}$x$1\frac{11}{32}$x$2\frac{1}{16}$". Wt. 4 oz.

42R06

Stk. No.	Type	Coil Res.	Oper. DC Ma.	Source VDC	1-24	25-49	50-74	75-99	100-249
24FX2041	42R06-500-G-SIL	500	20	....	**6.20**	**5.89**	**5.58**	**4.96**	**4.34**
24FX2042	42R06-1000-G-SIL	1000	14	24	**6.20**	**5.89**	**5.58**	**4.96**	**4.34**
24FX2043	42R06-2500-G-SIL	2500	9	48	**6.20**	**5.89**	**5.58**	**4.96**	**4.34**
24FX2044	42R06-5000-G-SIL	5000	6.5	....	**6.40**	**6.08**	**5.76**	**5.12**	**4.48**
24FX2045	42R06-10000-G-SIL	10000	4.5	....	**6.60**	**6.27**	**5.94**	**5.28**	**4.62**

TYPE 42R06Z AC SINGLE COIL SPDT

General purpose, shaded pole AC sensitive relay. Extreme long life, octal plug-in, plastic dust cover. 0.50 VA 60 cycles sensitivity DPDT silver contacts rated 5 amps 28 VDC/120 VAC resistive. Size $1\frac{11}{32}$x$1\frac{11}{32}$x$2\frac{1}{16}$". Wt. 4 oz.

Stk. No.	Type	Coil Res.	Oper. VAC	Source VAC	1-24	25-49	50-74	75-99	100-249
24FX2047	42R06Z-50-ACG-SIL	50	10	12	**6.20**	**5.89**	**5.58**	**4.96**	**4.34**
24FX2048	42R06Z-200-ACG-SIL	200	19	24					
24FX2049	42R06Z-4000-ACG-SIL	4000	90	120					

Newark can supply all your Sigma Relay needs.

To save time and money make Newark Your Complete One Point Stock Source.

TYPE 46 — DPDT HEAVY DUTY DC OR AC RELAY

Designed to switch up to 10 ampere loads. For machine tool controls, timers and laundry equipment. Sensitivity: DC—"LW" adjustment, 1 watt; AC, "ACW" adjustment, 4 volt-amperes. Contact Rating DC loads—5 amp at 28 VDC; 1 amp. at 120 VDC. AC loads, 1200 volt-amperes/pole, 240 volts, max.—10 amp. Vibration: normal industrial condition. Enclosed in transparent plastic dust cover, octal plug-in. Size: $1\frac{5}{16}$x$1\frac{5}{16}$x$2\frac{1}{16}$". Wt., 5 oz.

DC Types

Stk. No.	Type	Coil Res.	Oper. VDC	1-24	25-49	50-74	75-99	100-249
24F2075	46RO-17-LW SIL	17	4	**6.00**	**5.70**	**5.40**	**4.80**	**4.20**
24F2076	46RO-65-LW SIL	65	8					
24F2077	46RO-280-LW SIL	280	16					
24F2078	46RO-650-LW SIL	650	24					
24F2079	46RO-1100-LW SIL	1100	32	**6.20**	**5.89**	**5.58**	**4.96**	**4.34**
24F2080	46RO-6500-LW SIL	6500	80	**6.60**	**6.27**	**5.94**	**5.28**	**4.62**

AC Types

Stk. No.	Type	Coil Res.	Oper. VAC	1-24	25-49	50-74	75-99	100-249
24F2081	46ROZ-1700M*-ACW SIL	1700	5	**6.05**	**5.75**	**5.45**	**4.84**	**4.24**
24F2082	46ROZ-6500M*-ACW SIL	6500	10					
24F2083	46ROZ-28-ACW SIL	28	20					
24F2084	46ROZ-65-ACW SIL	65	30					
24F2085	46ROZ-110-ACW SIL	110	40					
24F2086	46ROZ-650-ACW SIL	650	100					
24F2087	46ROZ-2800-ACW SIL	2800	200	**6.45**	**6.13**	**5.81**	**5.16**	**4.52**

*Milliohms.

46ROZ

POLARIZED RELAYS SERIES 72

SPDT, form Z, either side stable, 2 position, magnetic latch in. Armature is held against one contact or the other by permanent-magnet field. Mom. coil signal of operating level either presses armature still more firmly against contact or transfers it to the other contact, depending on polarity of signal. Once transferred, armature remains in this position until an operating coil signal of opposite polarity returns it to original position. For high speed switching up to 500 cps. Operating sensitivities: 0.3-40 mw. Removable Nylon cover(octal plug-in. Contacts rated 0.5 amps. Size: $1\frac{7}{16}$" dia. x $2\frac{5}{8}$" high. Shpg. wt., 5 oz.

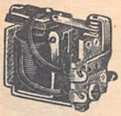
Stock No.	Type	Coil** Res.	Oper.* DC MA	1-24	25-49	50-74	75-99	100-249
24FX1752	72AOZ-160TS-TCP	160	1.4	**33.00**	**31.35**	**29.70**	**26.40**	**23.10**
24FX1753	72AOZ-160TG-TCP	160	3.6	**33.00**	**31.35**	**29.70**	**26.40**	**23.10**
24FX1718	72AOZ-1000TG-TCP	1000	1.44	**33.00**	**31.35**	**29.70**	**26.40**	**23.10**
24FX1754	72AOZ-4000TG-TCP	4000	.72	**34.10**	**32.39**	**30.69**	**27.28**	**23.87**
24F2090	72AOZ-1000TS-SIL	1000	.56	**33.00**	**31.35**	**29.70**	**26.40**	**23.10**
24F2091	72AOZ-4000TS-TCP	4000	.28	**34.10**	**32.39**	**30.69**	**27.28**	**23.87**

*Either polarity, either coil. **Each coil.

72AOZ

ALLIED RELAYS

GENERAL PURPOSE RELAYS



AS-AC/DC RELAYS

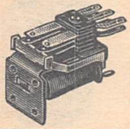
5 AMP; SPST—Single hole mounting, terminal board on front and contacts on top for easy inspection. Mounting 6-32 tapped hole. Wt. 2.0 oz.

Stk. No.	Model	Voltage	Ohms	Wattage	1-9	10-99	100-249
59F400	AS-3A	115AC	850	3.5	3.75	3.00	2.81
59F401	AS-3D	26.5DC	528	1.3	3.40	2.72	2.55

BJ-AC/DC RELAYS

5 AMP; DPDT—Compact narrow design with terminal board for wiring in groups. Mounting 2—6-32 tapped holes. Wt. 3.7 oz.

Stk. No.	Model	Voltage	Ohms	Wattage	1-9	10-99	100-249
59F402	BJ-6A	115AC	650	3.5	6.46	5.17	4.85
59F403	BJ-6D	26.5DC	255	2.7	5.72	4.58	4.29



TAT-2C DC RELAYS

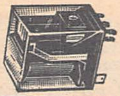
Subminiature, elongated mounting holes 4-48 NF tapped holes. Wt. .7 oz., 2 AMP contacts; 700 MW, DPDT Relay.

Stk. No.	Model	Voltage	Ohms	1-9	10-99	100-249
59F474	TAT-2C	6DC	52	2.85	2.28	2.14
59F475	TAT-2C	12DC	185			
59F476	TAT-2C	24DC	700			
59F477	TAT-2C	48DC	2000			
59F478	TAT-2C	115DC	15000	4.20	3.36	3.15

TAT-4C DC RELAYS

Same as TAT-2C series except 4PDT.

Stk. No.	Model	Voltage	Ohms	1-9	10-99	100-249
59F479	TAT-4C	6DC	52	3.21	2.57	2.41
59F480	TAT-4C	12DC	185			
59F481	TAT-4C	24DC	700			
59F482	TAT-4C	48DC	2000			
59F483	TAT-4C	115DC	15000	4.56	3.65	3.42



TF154-2C DC RELAYS

5 AMP contacts; 700 MW, DPDT Relays—Combination plug in style and solder terminals use socket 30055-1. Wt.: .80 oz.

Stk. No.	Model	Voltage	Ohms	1-9	10-99	100-249
59F484	TF154-2C	6DC	52	3.27	2.62	2.45
59F485	TF154-2C	12DC	185			
59F486	TF154-2C	24DC	700			
59F487	TF154-2C	48DC	2500			
59F488	TF154-2C	115DC	15000	4.62	3.70	3.47

TF154-4C DC RELAYS

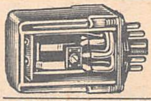
Same as TF154-2C except 4PDT. Uses socket 30055-2. .95 oz.

Stk. No.	Model	Voltage	Ohms	1-9	10-99	100-249
59F489	TF154-4C	6DC	52	3.75	3.00	2.81
59F490	TF154-4C	12DC	185			
59F491	TF154-4C	24DC	700			
59F492	TF154-4C	48DC	2500			
59F493	TF154-4C	115DC	15000	5.10	4.08	3.83

TF154-6C DC RELAYS

Same as model TF154-2C except 6PDT and 1.5w. Uses socket 30055-20. 1.0 oz.

Stk. No.	Model	Voltage	Ohms	1-9	10-99	100-249
59F494	TF154-6C	6DC	25	4.79	3.83	3.59
59F495	TF154-6C	12DC	90			
59F496	TF154-6C	24DC	430			
59F497	TF154-6C	48DC	1550			
59F498	TF154-6C	115DC	9000	5.64	4.51	4.23

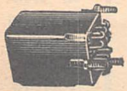


TFMDC DC RELAYS

5 AMP; 700 MW, DPDT Relays—Transparent, polycarbonate cover, plug in style, same as TAT Series. Socket; RETMA or EIA octal.

Stk. No.	Model	Voltage	Ohms	1-9	10-99	100-249
59F502	TFMDO-2C	6DC	52	5.58	4.46	4.19
59F503	TFMDO-2C	12DC	185			
59F504	TFMDO-2C	24DC	700			
59F505	TFMDO-2C	115DC	15000	6.93	5.54	5.20

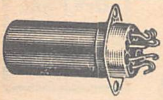
MINIATURE TYPE RELAYS



CH DC RELAYS

CH relay, miniature, 10 AMP; 4 PDT, withstands 20 G's at 2000 cps. Temp. 65°C to +125°C. Operating time 15 milliseconds. Voltage—26.5 DC. Wt.—5 oz. Mounting, (3)—6-32 thd. studs.

Stk. No.	Type	Wattage	1-9	10-99	100-249
59F416	CH-12D	4W	30.00	24.00	21.00



MH-6 DC RELAYS

26.5VDC; 5 AMP, DPDT contacts. Withstands 15 G's—1000 cps. Temp. for MH, —55°. Temp. for MHB, —65°C to +125°C to +85°C. Mounting, (2)—.125 dia. holes. Wt.—2 oz.

Stk. No.	Type	Ohm	Wattage	1-9	10-99	100-249
59F439	MH-6D	400	1.75W	14.25	11.40	9.98
59F442	MHB-6D	325	1.25W	14.25	11.40	9.98

MH-12 DC RELAYS

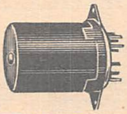
Same as MH-6 Series, except 4PDT. Mounting, (2)—6-32 nc thd. studs. Wt.—3 ozs.

59F440	MH-12D	300	2.5	20.90	16.72	14.63
59F443	MHB-12D	250	3.0	20.90	16.72	14.63

MH-18 DC RELAYS

Same as MH-6 Series, except 6PDT. Wt.—4.2 oz.

59F441	MH-18D	240	3W	23.75	19.00	16.63
59F444	MHB-18D	200	2.5W	23.75	19.00	16.63



MHUO-12 DC RELAYS

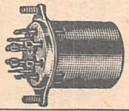
Same as MH except 4PDT plug in. Socket 16188-1. Temp. —55°C to 85°C. Withstands 15 G's at 1000 cps. Wt.—3 oz.

Stk. No.	Type	Ohm	Wattage	1-9	10-99	100-249
59F445	MHUO-12D	300	2.5W	20.90	16.72	14.63

MHUO-18 DC RELAYS

Same as MHUO-12 except 6PDT plug in. Socket 16189-1. Wt. 4.2 oz.

Stk. No.	Type	Ohm	Wattage	1-9	10-99	100-249
59F446	MHUO-18D	240	3W	23.75	19.00	16.83



MHY DC RELAYS

Same as MH except 4PDT @ 10 amps and withstands 20 G's—500 cps. Mounting (2)—6-32 thd. studs. Wt.—4.2 oz.

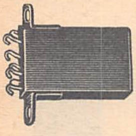
Stk. No.	Type	Ohm	Wattage	1-9	10-99	100-249
59F447	MHY12D	200	3.5	25.41	20.33	17.79

MHYO DC RELAYS

Same as Relay MHY except plug in style, and 10 amps.

St. No.	Type	Ohm	Wattage	1-9	10-99	100-249
59F448	MHYO-12D	200	3.5	25.41	20.33	17.79

PLATE CIRCUIT RELAYS



JSH AND JSHO DC RELAYS

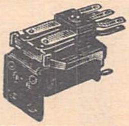
JSH3 Series 2 AMPS SPST 25 mw; JSH6 Series 2 AMPS DPDT 40 mw. JSHO Series 2 AMPS DPDT. Withstands 15 G's—2000 cps. Temp. —65°C to +125°C. .125 dia. mtg. holes. Wt.—1.1 oz.

Stk. No.	Type	Current	Ohm	1-9	10-99	100-249
59F419	JSH-3D	3.2 madc	2500	13.52	10.82	10.14
59F420	JSH-3D	2.2 madc	5000	13.52	10.82	10.14
59F421	JSH-3D	1.6 madc	10000	15.46	12.37	11.60
59F422	JSH-6D	4 madc	2500	14.49	11.59	10.87
59F423	JSH-6D	2.8 madc	5000	14.49	11.59	10.87
59F424	JSH-6D	2.0 madc	10000	16.43	13.14	12.32
59F425	JSHO-6D	2.8 madc	5000	14.49	11.59	10.87
59F426	JSHO-6D	2.0 madc	10000	16.43	13.14	12.32

TFMDO DC RELAYS

Same as JSHO series except transparent polycarbonate cover. Wt.—2.5 oz. (*) 220 mw, (†) 250 mw, (**) 300 mw.

Stk. No.	Type	Current	Ohm	1-9	10-99	100-249
59F499	TFMDO-2C*	9.5 madc	2500	5.87	4.70	4.40
59F500	TFMDO-2C†	7.0 madc	5000	6.33	5.06	4.75
59F501	TFMDO-2C**	5.5 madc	10000	7.22	5.78	5.42



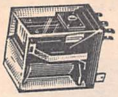
TFT-2C DC RELAYS

5 AMP; DPDT contacts, subminiature relays. Mounting (4)—4-48NF tapped holes. Wt.—7 oz. (*) 220 mw, (†) 250 mw, (**) 300 mw.

59F506	TFT-2C*	9.5 madc	2500	3.26	2.61	2.45
59F507	TFT-2C†	7.0 madc	5000	3.72	2.98	2.79
59F508	TFT-2C**	5.5 madc	10000	4.61	3.69	3.46

ALLIED RELAYS, SWITCHES AND SOCKETS

PLATE CIRCUIT RELAYS (Cont.)



TS154-2C DC RELAYS

1 AMP; 85 mw, DPDT, solder/plug-in type. Socket 30055-1. 8 oz.

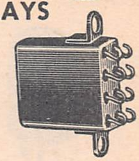
Stk. No.	Type	Current	Ohm	1-9	10-49	50-99	100-249
59F509	TS154-2C	5.8 madc	2500	**3.44**	**2.75**	**2.75**	**2.58**
59F510	TS154-2C	4.1 madc	5000	**3.90**	**3.12**	**3.12**	**2.93**
59F511	TS154-2C	3.1 madc	10000	**4.79**	**3.83**	**3.83**	**3.59**

TS154-4C DC RELAYS

Same as TS154-2C except 4PDT, 175 mw. Socket 30055-2. .95 oz.

Stk. No.	Type	Current	Ohm	1-9	10-49	50-99	100-249
59F512	TS154-4C	8.4 madc	2500	**3.83**	**3.06**	**3.06**	**2.87**
59F513	TS154-4C	6.2 madc	5000	**4.29**	**3.43**	**3.43**	**3.22**
59F514	TS154-4C	4.5 madc	10000	**5.18**	**4.14**	**4.14**	**3.89**

SUBMINIATURE TYPE RELAYS

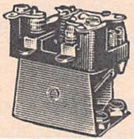


KHJ AND KHJO DC RELAYS

2 AMP; 1.5W, DPDT contacts, subminiature type, vibration shock up to 20 g's at 2000 cps, 5 milliseconds operating time. Temp —65°C to 125°C. Mounting (2) .120 holes. (*) Plug-in style. Socket HRG 1. Wt. 5 oz.

Stk. No.	Type	Voltage	Ohm	1-9	10-49	50-99	100-249
59F427	KHJ-6D	6DC	39	**12.64**	**10.11**	**9.48**	**8.85**
59F428	KHJ-6D	12DC	147	**12.64**	**10.11**	**9.48**	**8.85**
59F429	KHJ-6D	26.5DC	612	**12.64**	**10.11**	**9.48**	**8.85**
59F430	KHJ-6D	48DC	2370	**14.44**	**11.55**	**10.83**	**10.11**
59F431	KHJ-6D	115DC	10000	**18.14**	**14.51**	**13.61**	**12.70**
59F432*	KHJO-6D	26.5DC	612	**12.64**	**10.11**	**9.48**	**8.85**

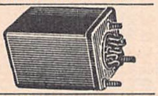
POWER TYPE RELAYS



BO AC/DC RELAYS

15 AMP; DPDT contacts power relays consist of rugged design, contacts and terminals readily accessible on top of relay. Mounting (4)—6-32 elastic stop nut. Wt. 5.5 oz.

Stk. No.	Type	Volt	Ohm	Watts	1-9	10-49	50-99	100-249
59F404	BO-6A	6AC	1.07	5VA	**4.93**	**3.94**	**3.94**	**3.70**
59F405	BO-6A	24AC	17	5VA	**4.93**	**3.94**	**3.94**	**3.70**
59F406	BO-6A	115AC	445	5VA	**5.08**	**4.06**	**4.06**	**3.81**
59F407	BO-6A	220AC	1700	5VA	**5.19**	**4.15**	**4.15**	**3.89**
59F408	BO-6D	6.3DC	14.2	2.5W	**4.60**	**3.68**	**3.68**	**3.45**
59F409	BO-6D	13.2DC	70	2.5W	**4.60**	**3.68**	**3.68**	**3.45**
59F410	BO-6D	26.5DC	230	2.5W	**4.66**	**3.73**	**3.73**	**3.50**
59F411	BO-6D	115DC	5000	2.5W	**5.17**	**4.14**	**4.14**	**3.88**



BOHR AC/DC RELAYS

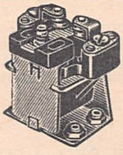
Same as BO except 10 amps, cover and mounting (3)—8-32 thd. studs. Wt. 9.5 oz.

Stk. No.	Type	Volt	Ohm	Watts	1-9	10-49	50-99	100-249
59F412	BOHR-6A	115AC	445	5VA	**10.46**	**8.37**	**8.37**	**7.85**
59F413	BOHR-6D	26.5DC	230	2.5W	**10.04**	**8.03**	**8.03**	**7.53**

BOHRO AC/DC RELAYS

Same as BO except plug-in style, socket RETMA or EIA. 9.5 oz.

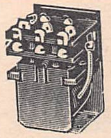
Stk. No.	Type	Volt	Ohm	Watts	1-9	10-49	50-99	100-249
59F414	BOHRO-6A	115AC	445	5VA	**10.46**	**8.37**	**8.37**	**7.85**
59F415	BOHRO-6D	26.5DC	230	2.5W	**10.04**	**8.03**	**8.03**	**7.53**



CNA AC RELAYS

115 VAC, SPST; 145 ohm coil, 10.5 VA relays are heavy duty compact relays, double break contacts. Mounting (4)—6-32 elastic stop nuts. Wt., 9.5 oz.

Stk. No.	Type	Cont.	1-9	10-49	50-99	100-249
59F417	CNA-13A	25A	**7.00**	**5.60**	**5.60**	**5.25**
59F418	CNAS-13A	50A	**8.15**	**6.52**	**6.52**	**6.11**

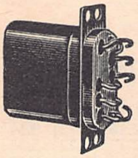


PO-9 AND PO-12 AC/DC RELAY SERIES

Low cost compact. PO-9 3PDT, PO-12 4PDT, 15 ampere relays. Mounting (4)—6-32 tapped holes. Wt., 8.0 oz.

Stk. No.	Type	Voltage	Wattage	Ohm	1-9	10-49	50-99	100-249
59F449	PO-9A	24AC	10.5VA	8	**5.54**	**4.43**	**4.43**	**4.16**
59F450	PO-9A	115AC	10.5VA	145	**5.54**	**4.43**	**4.43**	**4.16**
59F451	PO-9D	13.2DC	2.5W	70	**5.18**	**4.14**	**4.14**	**3.89**
59F452	PO-9D	24DC	2.5W	230	**5.18**	**4.14**	**4.14**	**3.89**
59F453	PO-9D	115DC	2.5W	5000	**5.80**	**4.64**	**4.64**	**4.35**
59F454	PO-12A	115AC	10.5VA	145	**6.16**	**4.93**	**4.93**	**4.62**
59F455	PO-12D	13.2DC	2.5W	70	**5.80**	**4.64**	**4.64**	**4.35**
59F456	PO-12D	24DC	2.5W	230	**5.80**	**4.64**	**4.64**	**4.35**

KHY AND KHYO DC RELAY SERIES



Subminiature, non-inductive low level DPDT contacts, 2 ampere 1.5W shock vibration 20 g's at 2000 cps operating time 5 milliseconds. (*) Plug-in style. Mounting (4) .096 dia. holes. Temp. —65°C to +125°C. Wt., .5 oz.

Stk. No.	Type	Voltage	Ohm	1-9	10-49	50-99	100-249
59F433	KHY-6D	6DC	34	**12.64**	**10.11**	**9.48**	**8.85**
59F434	KHY-6D	12DC	155	**12.64**	**10.11**	**9.48**	**8.85**
59F435	KHY-6D	26.5DC	615	**12.64**	**10.11**	**9.48**	**8.85**
59F436	KHY-6D	48DC	1920	**14.44**	**11.55**	**10.83**	**10.11**
59F437	KHY-6D	115DC	8120	**17.24**	**13.79**	**12.93**	**12.07**
59F438	KHYO-6D	26.5DC	615	**12.64**	**10.11**	**9.48**	**8.85**

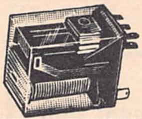
TELEPHONE TYPE RELAYS

SK AND SKH DC TYPE RELAY

Ideal where power consumption and sensitivity are not a factor. Standard pick up at 80% of voltage. Miniature size with efficient metal to metal hinge. Mounting (2) 4-40 thd. holes. With coil resistance of 425 ohms. SKH-4C model sealed, mounting (3) 6-32 thd. studs. Wt., 2.5 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249
59F457	SK-4C	**3.94**	**3.15**	**3.15**	**2.96**
59F458	SKH-4C	**8.68**	**6.94**	**6.94**	**6.51**

T-154 DC TYPE RELAYS

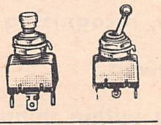


T154 relays are sealed units consisting of solder/plug-in style. 2 Ampere, 700 mw and 1.5 mw, no internal wiring models. Wt., .8 to 1 oz.

Stk. No.	Type	Volt.	Cont.	Socket	Ohm	1-9	10-49	50-99	100-249
59F159	T154-2C	6DC	DPDT	30055-1	52	**3.15**	**2.52**	**2.52**	**2.36**
59F160	T154-2C	12DC	DPDT	30055-1	185	**3.15**	**2.52**	**2.52**	**2.36**
59F161	T154-2C	24DC	DPDT	30055-1	700	**3.15**	**2.52**	**2.52**	**2.36**
59F162	T154-2C	48DC	DPDT	30055-1	2500	**3.15**	**2.52**	**2.52**	**2.36**
59F163	T154-2C	115DC	DPDT	30055-1	15000	**4.50**	**3.60**	**3.60**	**3.38**

Stk. No.	Type	Volt.	Cont.	Socket	Ohm	1-9	10-49	50-99	100-249
59F164	T154-4C	6DC	4PDT	30055-2	52	**3.51**	**2.81**	**2.81**	**2.63**
59F165	T154-4C	12DC	4PDT	30055-2	185	**3.51**	**2.81**	**2.81**	**2.63**
59F166	T154-4C	24DC	4PDT	30055-2	700	**3.51**	**2.81**	**2.81**	**2.63**
59F167	T154-4C	48DC	4PDT	30055-2	2500	**3.51**	**2.81**	**2.81**	**2.63**
59F168	T154-4C	115DC	4PDT	30055-2	15000	**4.86**	**3.89**	**3.89**	**3.65**
59F169	T154-6C	6DC	6PDT	30055-20	25	**4.43**	**3.54**	**3.54**	**3.32**
59F170	T154-6C	12DC	6PDT	30055-20	90	**4.43**	**3.54**	**3.54**	**3.32**
59F171	T154-6C	24DC	6PDT	30055-20	430	**4.43**	**3.54**	**3.54**	**3.32**
59F172	T154-6C	48DC	6PDT	30055-20	1550	**4.43**	**3.54**	**3.54**	**3.32**
59F173	T154-6C	115DC	6PDT	30055-20	9000	**5.28**	**4.22**	**4.22**	**3.96**

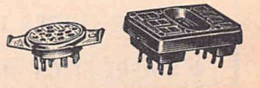
SWITCHES



Miniature switches, 2 and 5 Ampere, 10 and 20 thousand break cycle (min) 5-28 cps double amplitude. Shock up to 50 g's. Wt., 3-5 grs. max.

Stk. No.	Type	Position	Contacts	1-9	10-49	50-99	100-249
59F520	PM-7	—	3PST	**4.28**	**3.42**	**3.42**	**3.21**
59F521	TC-3	on-off-on	SPDT	**3.20**	**2.56**	**2.56**	**2.40**
59F522	TG-3	mom-off-on	SPDT	**3.20**	**2.56**	**2.56**	**2.40**
59F523	TG-3	mom-off-mom	SPDT	**3.20**	**2.56**	**2.56**	**2.40**
59F524	TS-3	on-on	SPDT	**3.00**	**2.40**	**2.40**	**2.25**
59F525	TS-6	on-on	DPDT	**3.90**	**3.12**	**3.12**	**2.93**

SOCKETS



Above chassis mounting sockets. Beryllium copper, silver plated contacts. Socket: mica filled phenolic. Hardware: retainer ring and ground wire.

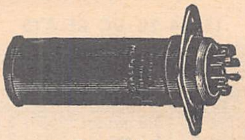
Stk. No.	Type	Socket No.	1-9	10-49	50-99	100-249
59F515	MHUO-12	16188-1	**.57**	**.46**	**.46**	**.43**
59F516	MHUO-18	16189-1	**.67**	**.54**	**.54**	**.50**
59F517	T-154-2C	30055-1	**1.21**	**.97**	**.97**	**.91**
59F518	T-154-4C	30055-2	**1.30**	**1.04**	**.98**	**.91**
59F519	T-154-6C	30055-20	**1.50**	**1.20**	**1.13**	**1.05**

DIALTRON THERMAL TIME DELAY RELAYS

Type PR

Type FR

Type PAY



Type FAY

- **Voltage Sensing and Thermally Actuated**
- **Ideal for Tube Protection and Under and Over Voltage**
- **Protection in Power Supplies, Radio, Transmitters, Electric Motors, etc.**
- **Operates at Any Frequency**
- **Allows Pre-Determined Time Delay**
- **Alternating or Direct Current**

Dialtron thermal time delay relays are voltage-sensing thermally activated devices designed to introduce a pre-determined time delay into an electrical circuit. Applications include tube protection and under and over voltage protection in power supplies, radio transmitters, electric motors, etc. Among this relay's advantages over motor driven timers are light weight, low cost, and the ability to operate interchangeably on DC or AC of any frequency.

DIALTRON SUB-MINIATURE HERMETICALLY SEALED TIME DELAY RELAYS

Will carry 3 amps. at 125 VAC. Non-inductive. Will operate within tolerance shown from —65°C to +100°C. For temperatures from 101°C to 125°C add ±10% tolerance beyond that shown. Sizes: dia., .750", length, $1\frac{5}{16}$". Type FR: dia. .750". Shpg. wt., approx. 1 oz.

Type PR 7-Pin Miniature Mounting

Stock No.	Type	Con.	Volts	Delay in Sec.	1-9	10-24	25-49
24F2100	PR-10S-NO-115	NO	115	20±2	**12.60**	**10.50**	**9.94**
24F2101	PR-20S-NO-28	NO	28	20±2	**12.60**	**10.50**	**9.94**
24F2102	PR-20S-NC-28	NC	28	20±2	**12.60**	**10.50**	**9.94**
24F2103	PR-20S-NO-6.3	NO	6.3	20±2	**12.60**	**10.50**	**9.94**
24F2104	PR-20S-NO-115	NO	115	20±2	**12.60**	**10.50**	**9.94**
24F2105	PR-20S-NC-115	NC	115	20±2	**12.60**	**10.50**	**9.94**
24F2106	PR-30S-NO-28	NO	28	30±3	**12.60**	**10.50**	**9.94**
24F2107	PR-30S-NO-115	NO	115	30±3	**12.60**	**10.50**	**9.94**
24F2108	PR-40S-NO-28	NO	28	40±4	**12.60**	**10.50**	**9.94**
24F2109	PR-40S-NO-115	NO	115	40±4	**12.60**	**10.50**	**9.94**
24F2110	PR-60S-NO-28	NO	28	60±5	**12.60**	**10.50**	**9.94**
24F2111	PR-60S-NO-115	NO	115	60±5	**12.60**	**10.50**	**9.94**
24F2112	PR-160S-NO-28	NO	28	160±15	**12.60**	**10.50**	**9.94**
24F2113	PR-120S-NC-28	NC	28	120±11	**12.60**	**10.50**	**9.94**

Type FR Flange Mounting With Solder Terminals

Stock No.	Type	Con.	Volts	Delay in Sec.	1-9	10-24	25-49
24F2114	FR-20S-NO-28	NO	28	20±2	**13.24**	**11.03**	**10.44**
24F2115	FR-20S-NC-28	NC	28	20±2	**13.24**	**11.03**	**10.44**
24F2116	FR-20S-NO-6.3	NO	6.3	20±2	**13.24**	**11.03**	**10.44**
24F2117	FR-20S-NO-115	NO	115	20±2	**13.24**	**11.03**	**10.44**
24F2118	FR-20S-NC-115	NC	115	20±2	**13.24**	**11.03**	**10.44**
24F2119	FR-30S-NO-28	NO	28	30±3	**13.24**	**11.03**	**10.44**
24F2120	FR-30S-NO-115	NO	115	30±3	**13.24**	**11.03**	**10.44**
24F2121	FR-40S-NO-28	NO	28	40±4	**13.24**	**11.03**	**10.44**
24F2122	FR-40S-NO-115	NO	115	40±4	**13.24**	**11.03**	**10.44**
24F2123	FR-60S-NO-28	NO	28	60±5	**13.24**	**11.03**	**10.44**
24F2124	FR-60S-NO-115	NO	115	60±5	**13.24**	**11.03**	**10.44**
24F2125	FR-160S-NO-28	NO	28	160±15	**13.24**	**11.03**	**10.44**
24F2126	FR-120S-NC-28	NC	28	120±11	**13.24**	**11.03**	**10.44**

DIALTRON HERMETICALLY SEALED ADJUSTABLE TIME DELAY RELAYS

Will carry 5 amps. at 125 VAC. Non-inductive. Will operate within tolerance shown from —65°C to +100°C. For temperatures from 101°C to 125°C add ±10% tolerance beyond that shown. Size: dia., .750"; length, $2\frac{19}{32}$". Shpg. wt. approx. $1\frac{1}{2}$ oz.

Type PAY 7-Pin Miniature Mounting

Stock No.	Type PAY-	Con.	Volts	Delay in Sec.	TR-Secs.	1-9	10-24	25-49
24F2127	20S-NO-28	NO	28	20±2	12-22	**11.61**	**10.22**	**9.05**
24F2128	20S-NC-28	NC	28	20±2	12-22	**11.61**	**10.22**	**9.05**
24F2129	20S-NO-6.3	NO	6.3	20±2	12-22	**11.61**	**10.22**	**9.05**
24F2130	20S-NO-115	NO	115	20±2	12-22	**11.61**	**10.22**	**9.05**
24F2131	20S-NC-115	NC	115	20±2	12-22	**11.61**	**10.22**	**9.05**
24F2132	30S-NO-28	NO	28	30±3	22-33	**11.61**	**10.22**	**9.05**
24F2133	30S-NO-115	NO	115	30±3	22-33	**11.61**	**10.22**	**9.05**
24F2134	40S-NO-28	NO	28	40±4	33-45	**11.61**	**10.22**	**9.05**
24F2135	40S-NO-115	NO	115	40±4	33-45	**11.61**	**10.22**	**9.05**
24F2136	60S-NO-28	NO	28	60±5	45-65	**11.61**	**10.22**	**9.05**
24F2137	60S-NO-115	NO	115	60±5	45-65	**11.61**	**10.22**	**9.05**
24F2138	160S-NO-28	NO	28	160±15	125-180	**11.61**	**10.22**	**9.05**
24F2139	120S-NC-28	NC	28	120±11	90-125	**11.61**	**10.22**	**9.05**

Type FAY Flange Mounting With Solder Terminals

Stock No.	Type FAY-	Con.	Volts	Delay in Sec.	TR-Secs.	1-9	10-24	25-49
24F2140	20S-NO-28	NO	28	20±2	12-22	**12.19**	**10.73**	**9.51**
24F2141	20S-NC-28	NC	28	20±2	12-22	**12.19**	**10.73**	**9.51**
24F2142	20S-NO-115	NO	115	20±2	12-22	**12.19**	**10.73**	**9.51**
24F2143	40S-NO-115	NO	115	40±4	33-45	**12.19**	**10.73**	**9.51**
24F2144	60S-NO-28	NO	28	60±5	45-65	**12.19**	**10.73**	**9.51**
24F2145	60S-NO-115	NO	115	60±5	45-65	**12.19**	**10.73**	**9.51**
24F2146	120S-NO-28	NO	28	120±11	90-125	**12.19**	**10.73**	**9.51**
24F2147	120S-NO-115	NO	115	120±11	90-125	**12.19**	**10.73**	**9.51**
24F2148	120S-NC-115	NC	115	120±11	90-125	**12.19**	**10.73**	**9.51**
24F2149	160S-NO-28	NO	28	160±15	125-180	**12.19**	**10.73**	**9.51**
24F2150	160S-NO-6.3	NO	6.3	160±15	125-180	**12.19**	**10.73**	**9.51**
24F2151	160S-NC-115	NC	115	160±15	125-180	**12.19**	**10.73**	**9.51**
24F2152	160S-NC-28	NC	28	160±15	125-180	**12.19**	**10.73**	**9.51**
24F2153	160S-NO-115	NO	115	160±15	125-180	**12.19**	**10.73**	**9.51**

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AMPERITE THERMOSTATIC DELAY RELAYS

Hermetically sealed-heater-actuated relays for AC or DC operation. SPST-Normally Open (NO) type and Normally Closed (C). Draw two watts. Contact rating—115 volts at 3 amps AC and 220 volts at 1 amp AC. Breakdown voltage: delays 2 to 10 seconds between contacts 250 V, heater to contacts 500 V. Delays 15-180 seconds between contacts—800 V, heater to contacts 1000 V. Compensated for —55° to 70°C ambient. In octal base shell. Dia. ¹³⁄₁₆". Hgt., less prongs, 2¾". Size for miniature 9-pin, ¾x2½". Shpg. wt., 4 oz.

OCTAL BASE TUBE SHELL

Delay Seconds	Stock No.	6.3 NO	Stock No.	26V NO	Stock No.	115V NO	Stock No.	115V NC	NET
2	24F2300	6 NO2	24F2314	26 NO2	24F2328	115 NO2	24F2342	115 C2	2.35
3	24F2301	6 NO3	24F2315	26 NO3	24F2329	115 NO3	24F2343	115 C3	
5	24F2302	6 NO5	24F2316	26 NO5	24F2330	115 NO5	24F2344	115 C5	
10	24F2303	6 NO10	24F2317	26 NO10	24F2331	115 NO10	24F2345	115 C10	
15	24F2304	6 NO15	24F2318	26 NO15	24F2332	115 NO15	24F2346	115 C15	
20	24F2305	6 NO20	24F2319	26 NO20	24F2333	115 NO20	24F2347	115 C20	
30	24F2306	6 NO30	24F2320	26 NO30	24F2334	115 NO30	24F2348	115 C30	
45	24F2307	6 NO45	24F2321	26 NO45	24F2335	115 NO45	24F2349	115 C45	
60	24F2308	6 NO60	24F2322	26 NO60	24F2336	115 NO60	24F2350	115 C60	
75	24F2309	6 NO75	24F2323	26 NO75	24F2337	115 NO75	24F2351	115 C75	
90	24F2310	6 NO90	24F2324	26 NO90	24F2338	115 NO90	....	....	
120	24F2311	6 NO120	24F2325	26 NO120	24F2339	115 NO120	24F2353	115 C120	
150	....	....	24F2326	26 NO150	24F2340	115 NO150	24F2354	115 C150	
180	24F2313	6 NO180	24F2327	26 NO180	24F2341	115 NO180	24F2355	115 C180	

AMPERITE BALLAST TUBES

Provide automatic regulation. Wt., 8 oz

No.	Type	No.	Type	NET
24F735	1HT4	24F724	4A1	1.76
24F717	3-4	24F718	4H4C	
24F716	3-14	24F719	6-4	
24F739	3-16	24F720	6-8B	
24F737	3-50A	24F721	6-12	
24F727	3HTF4	24F722	6H6	
24F725	3TF4A	24F742	6TF4	
24F738	3TF4	24F733	8-4	
24F726	3TFV4	24F734	9-7	
24F729	3TK2	24F723	10-4C	
24F732	3V4			

FLASHERS

Normally closed. Contact rating at 115 V —½ amp AC, non-inductive.

Stk. No.	Type	Tolerance FPM-20°C	FPM	NET
24F740	26F90	±20	90	2.35
24F741	115F30	±10	30	2.35

OCTAL BASE TUBE SHELL

Same as above, but lower voltage and normally closed; except 2N030 normally open.

Delay Sec.	Stock No.	2.5 V.	Stock No.	6.3 V.	Stock No.	26.0 V.	NET
30	24F2356	2NO30	....	....	....	....	2.35
20	....	....	24F2357	6C20	....	....	
30	....	....	....	....	24F2358	26C30	

MINIATURE 9 PIN TUBE SHELL

Delay Sec.	Stock No.	6.3V NO	Stock No.	26V NO	Stock No.	115V NO	Stock No.	115V NC	NET
2	24F2370	6 NO2T	24F2381	26 NO2T	24F2392	115 NO2T	24F2403	115 C2T	2.35
3	24F2371	6 NO3T	24F2382	26 NO3T	24F2393	115 NO3T	24F2404	115 C3T	
5	24F2372	6 NO5T	24F2383	26 NO5T	24F2394	115 NO5T	24F2405	115 C5T	
10	24F2373	6 NO10T	24F2384	26 NO10T	24F2395	115 NO10T	24F2406	115 C10T	
15	24F2374	6 NO15T	24F2385	26 NO15T	24F2396	115 NO15T	24F2407	115 C15T	
20	24F2375	6 NO20T	24F2386	26 NO20T	24F2397	115 NO20T	24F2408	115 C20T	
30	24F2376	6 NO30T	24F2387	26 NO30T	24F2398	115 NO30T	24F2409	115 C30T	
45	24F2377	6 NO45T	24F2388	26 NO45T	24F2399	115 NO45T	24F2410	115 C45T	
60	24F2378	6 NO60T	24F2389	26 NO60T	24F2400	115 NO60T	24F2411	115 C60T	
90	24F2379	6 NO90T	24F2390	26 NO90T	24F2401	115 NO90T	24F2412	115 C90T	
120	24F2380	6 NO120T	24F2391	26 NO120T	24F2402	115 NO120T	24F2413	115 C120T	

24F2414. Type 26C5T. Normally closed. Delay 5 sec. 26 V. **NET**..........2.35

AGASTAT TIME DELAY RELAYS

A

B

C

D

E

APPROXIMATE DIMENSIONS
(HxWxD)

Operation	Dimensions
1 & 2	4½"x2⅝"x2¹¹⁄₁₆"
3	4½"x2½"x3⅜"
4	5⅞"x2⅝"x2¹¹⁄₁₆"
5	5⅞"x2⅝"x2¹¹⁄₁₆"
6	5⅞"x2⅝"x2¹¹⁄₁₆"
7	6⅞"x3⅜"x4"

All contacts are DPDT action and are rated 7 ampere per contact at 115 volt, 60 cycle non inductive load. By adding a jumper between terminals 5 & 6 contact arrangement can be changed to SPDTDB increasing the capacity to 20 amps through the DB circuit. 7 operation types for your choice. (1) Adjustable delay starts when coil is energized. No delay on degenerization. (2) Delay starts when coil is deenergized. No delay on energization. (3) Same as 1 above except Aux. SPDT instantaneous switch added. (4) Same as 2 above plus Aux. SPDT instantaneous switch. (5) Delay starts when coil is energized and has Aux. SPDT switch which can give second time delay up to 15 sec. Aux. switch operates before main switch, when coil is energized. (6) Delay starts when coil is deenergized, has AUX SPDT switch which gives second time delay up to 15 sec. Aux. switch operates first. (7) Double head gives independently adjustable delay on both energizing and deenergizing of coil. Repeat Timing Accuracy ±10%. Coil operation 50-60 cps. Av. wt., 2 lbs.

Stock No.	Type	Fig.	Time Delay Range	Oper.	1	2-5	6-19	20-49
24F1480	DE-G-12QT*	A	.05-3 sec.	1	34.02	30.24	28.35	26.46
24F1418	DE-Y-12QT*	A	.2-30 sec.	1	34.02	30.24	28.35	26.46
24F1422	DE-B-12QT*	A	.5-15 min.	1	36.72	32.64	30.60	28.56
24F1481	DE-G-12QT†	A	.05-3 sec.	1	34.02	30.24	28.35	26.46
24F1419	DE-Y-12QT†	A	.2-30 sec.	1	34.02	30.24	28.35	26.46
24F1423	DE-B-12QT†	A	.5-15 min.	1	36.72	32.64	30.60	28.56
24F1482	DE-G-22QT*	A	.05-3 sec.	2	34.02	30.24	28.35	26.46
24F1420	DE-Y-22QT*	A	.2-30 sec.	2	34.02	30.24	28.35	26.46
24F1424	DE-B-22QT*	A	.5-15 min.	2	36.72	32.64	30.60	28.56
24F1483	DE-G-22QT†	A	.05-3 sec.	2	34.02	30.24	28.35	26.46
24F1421	DE-Y-22QT†	A	.2-30 sec.	2	34.02	30.24	28.35	26.46
24F1425	DE-B-22QT†	A	.5-15 min.	2	36.72	32.64	30.60	28.56
24F1484	DEL-G-12QT*	B	.05-3 sec.	3	41.22	36.64	34.35	32.06
24F1485	DEL-Y-12QT*	B	.2-30 sec.	3	41.22	36.64	34.35	32.06
24F1486	DEL-B-12QT*	B	.5-15 min.	3	43.92	39.04	36.60	34.16
24F1487	DEH-G-22Q*	C	.05-3 sec.	4	42.12	37.44	35.10	32.76
24F1488	DEH-Y-22Q*	C	.2-30 sec.	4	42.12	37.44	35.10	32.76
24F1489	DEH-B-22Q*	C	.5-15 min.	4	44.82	39.84	37.35	34.86
24F1490	DET-Y-12Q*	D	.2-30 sec.	5	42.12	37.44	35.10	32.76
24F1491	DET-Y-22Q*	D	.2-30 sec.	6	42.12	37.44	35.10	32.76
24F1492	DED-YY-12*	D	.2-30 sec.	7	69.30	61.60	57.75	53.90
24F1493	DED-BB-12*	E	.5-15 min.	7	74.70	66.40	62.25	58.10

*115 Volt, 50/60 cycle coil †230 Volt, 50/60 cycle coil

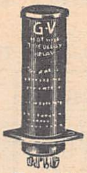
ENCLOSURE

Stock No.	Type	Dimensions	NET Each
24F668	G	2²¹⁄₃₂"x6⅝"x3⁵⁄₃₂"	6.00

G-V GENERAL PURPOSE RELAYS

Type Number Code

R	F	20	NO	28
Type of Expanding Element Determined By Time Delay	Mtg.	Basic Time Delay	Contact Arr.	Heater Volt.



Type F Mounting

Type M Mounting

FLANGE MOUNTING

No.	Type	Con†	TD Secs.*	1-9	10-24	25-49
24F1519	RF-20-NO-28	NO	12-22	**13.55**	**11.92**	**10.57**
24F1520	RF-20-NC-28	NC	12-22	**13.55**	**11.92**	**10.57**
24F1521	RF-20-NO-115	NO	12-22	**13.55**	**11.92**	**10.57**
24F1528	RF-40-NO-115	NO	33-45	**13.55**	**11.92**	**10.57**
24F1529	RF-60-NO-28	NO	45-65	**13.55**	**11.92**	**10.57**
24F1530	RF-60-NO-115	NO	45-65	**13.55**	**11.92**	**10.57**
24F1531	RF-120-NO-28	NO	90-125	**13.55**	**11.92**	**10.57**
24F1532	RF-120-NO-115	NO	90-125	**13.55**	**11.92**	**10.57**
24F1533	RF-120-NC-115	NC	90-125	**13.55**	**11.92**	**10.57**
24F1534	RF-160-NO-28	NO	125-180	**13.55**	**11.92**	**10.57**
24F1535	RF-160-NO-6.3	NO	125-180	**13.55**	**11.92**	**10.57**
24F1536	RF-160-NC-115	NC	125-180	**13.55**	**11.92**	**10.57**
24F1538	RF-160-NC-28	NC	125-180	**13.55**	**11.92**	**10.57**
24F1539	RF-160-NO-115	NO	125-180	**13.55**	**11.92**	**10.57**
24F1508	TF-06-NO-28	NO	3-8	**16.80**	**14.78**	**13.10**
24F1509	TF-06-NC-28	NC	3-8	**16.80**	**14.78**	**13.10**
24F1510	TF-06-NO-115	NO	3-8	**16.80**	**14.78**	**13.10**
24F1511	TF-10-NO-28	NO	8-12	**16.80**	**14.78**	**13.10**
24F1512	TF-10-NC-28	NC	8-12	**16.80**	**14.78**	**13.10**
24F1513	TF-10-NO-115	NO	8-12	**16.80**	**14.78**	**13.10**
24F1567	TF-06-NC-115	NC	3-8	**16.80**	**14.78**	**13.10**
24F1504	HF-01-NO-28	NO	.5-1.25	**19.90**	**17.51**	**15.52**
24F1505	HF-01-NC-28	NC	.5-1.25	**19.90**	**17.51**	**15.52**
24F1506	HF-04-NO-28	NO	1.25-3	**19.90**	**17.51**	**15.52**
24F1569	HF-04-NC-28	NC	1.25-3	**19.90**	**17.51**	**15.52**

MIL SPEC
HERMETICALLY SEALED TIME DELAY RELAYS

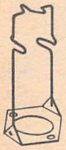
Relays meet MIL-R-19648. Small (2⅜"l.x⁵¹⁄₆₄"dia., Flange located ¼" from bottom) and lightweight (appr. 1 oz.). Stainless steel differential timing mechanism is temperature compensated over ambient range. * Performance data: Temp. range, —70°C to +125°C; shock, 30g's for 11 milli-sec.; vibration, H Series 10G's 55-200 cps, F &R Series 15G's, 55-500 cps; † contact rating, 3A to 250 VAC 1A to 32V DC non-inductive. DC or AC (any frequency) for energization.

* Adjustable over the delay range. Newark can supply from stock any basic time shown.

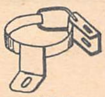
† Contact arrangement, SPST.—normally open (NO) or normally closed (NC).

7-PIN MINIATURE BASE MOUNTING
(No Flange, Has 7-Pin Base)

No.	Type	Con†	TD Secs.*	1-9	10-24	25-49
24F1514	RM-20-NO-28	NO	12-22	**12.90**	**11.35**	**10.06**
24F1515	RM-20-NC-28	NC	12-22	**12.90**	**11.35**	**10.06**
24F1516	RM-20-NO-6.3	NO	12-22	**12.90**	**11.35**	**10.06**
24F1517	RM-20-NO-115	NO	12-22	**12.90**	**11.35**	**10.06**
24F1518	RM-20-NC-115	NC	12-22	**12.90**	**11.35**	**10.06**
24F1522	RM-30-NO-28	NO	22-33	**12.90**	**11.35**	**10.06**
24F1523	RM-30-NO-115	NO	22-33	**12.90**	**11.35**	**10.06**
24F1524	RM-40-NO-28	NO	33-45	**12.90**	**11.35**	**10.06**
24F1525	RM-40-NO-115	NO	33-45	**12.90**	**11.35**	**10.06**
24F1526	RM-60-NO-28	NO	45-65	**12.90**	**11.35**	**10.06**
24F1527	RM-60-NO-115	NO	45-65	**12.90**	**11.35**	**10.06**
24F1537	RM-160-NO-28	NO	125-180	**12.90**	**11.35**	**10.06**
24F1570	RM-120-NC-28	NC	90-125	**12.90**	**11.35**	**10.06**
24F1507	TM-10-NO-115	NO	8-12	**16.15**	**14.21**	**12.60**
24F1500	HM-01-NO-28	NO	.5-1.25	**19.25**	**16.94**	**15.02**
24F1501	HM-01-NC-28	NC	.5-1.25	**19.25**	**16.94**	**15.02**
24F1502	HM-04-NO-28	NO	1.25-3	**19.25**	**16.94**	**15.02**
24F1503	HM-04-NC-28	NC	1.25-3	**19.25**	**16.94**	**15.02**
24F1568	HM-04-NC-6.3	NC	1.25-3	**19.25**	**16.94**	**15.02**



XA-1



XA-2

RED LINE
timing relay
G-V

Red Line

XA-1 RETAINER

The XA-1 miniature relay retainer comprises a stainless steel base mounted above the panel by the same screws or rivets which mount the socket, and a stainless steel wire spring which snaps up over the relay. For HM, TM, and RM relays. Shpg. wt. 1 lb.

24F1564. Pkg. of 10.............................. **3.00**

XA-2 CLAMP

The XA-2 clamp requires an extra panel mounting hole but holds the relay even more rigidly. The octal relay may be held in position with an external clamp. Relays and clamps meet most military applications. For HM, TM, and RM relays. Shpg. wt. 1 lb.

24F1565. Pkg. of 10.............................. **4.00**

G-V RED LINE THERMAL TIMING RELAYS

Relay mechanism is of stainless steel, differential expansion type used in all G-V thermal relays. All parts are welded into a single integral structure. No glass is used in the mechanism, shell or base. SPST—Normally Open and Normally Closed types. Dust tight. Operation up to 185° F. Withstand 5A at 125V AC. Non-inductive. Size: 1⁹⁄₃₂" Dia. x 2¾" H. Approx. shpg. wt., 3 oz. Newark can supply instant reset relays (immediately recycling with full time delay).

OCTAL BASE

No.	Type	Con.	Volts	Delay in Sec.	1-9	10-24	25-49	50-99	100-249
24F1540	DT-7023	NO	26.5	5±1	**6.55**	**5.95**	**5.40**	**4.90**	**4.65**
24F1541	DT-7024	NC	26.5	5±1	**6.55**	**5.95**	**5.40**	**4.90**	**4.65**
24F1542	DT-7025	NO	26.5	10±1.5	**6.55**	**5.95**	**5.40**	**4.90**	**4.65**
24F1543	DT-7026	NC	26.5	10±1.5	**6.55**	**5.95**	**5.40**	**4.90**	**4.65**
24F1544	DT-7027	NO	26.5	20±3	**6.55**	**5.95**	**5.40**	**4.90**	**4.65**
24F1545	DT-7028	NC	26.5	20±3	**6.55**	**5.95**	**5.40**	**4.90**	**4.65**
24F1546	DT-7033	NO	26.5	60±9	**7.00**	**6.35**	**5.80**	**5.25**	**4.95**
24F1547	DT-7034	NC	26.5	60±9	**7.00**	**6.35**	**5.80**	**5.25**	**4.95**
24F1548	DT-7037	NO	26.5	120±18	**7.60**	**6.90**	**6.30**	**5.70**	**5.40**
24F1549	DT-7038	NC	26.5	120±18	**7.60**	**6.90**	**6.30**	**5.70**	**5.40**
24F1550	DT-7039	NO	26.5	180±27	**8.15**	**7.40**	**6.75**	**6.15**	**5.80**
24F1551	DT-7040	NC	26.5	180±27	**8.15**	**7.40**	**6.75**	**6.15**	**5.80**
24F1552	DT-7043	NO	115	5±1	**6.55**	**5.95**	**5.40**	**4.90**	**4.65**
24F1553	DT-7044	NC	115	5±1	**6.55**	**5.95**	**5.40**	**4.90**	**4.65**
24F1554	DT-7045	NO	115	10±1.5	**6.55**	**5.95**	**5.40**	**4.90**	**4.65**
24F1555	DT-7046	NC	115	10±1.5	**6.55**	**5.95**	**5.40**	**4.90**	**4.65**
24F1556	DT-7047	NO	115	20±3	**6.55**	**5.95**	**5.40**	**4.90**	**4.65**
24F1557	DT-7048	NC	115	20±3	**6.55**	**5.95**	**5.40**	**4.90**	**4.65**
24F1558	DT-7053	NO	115	60±9	**7.00**	**6.35**	**5.80**	**5.25**	**4.95**
24F1559	DT-7054	NC	115	60±9	**7.00**	**6.35**	**5.80**	**5.25**	**4.95**
24F1560	DT-7057	NO	115	120±18	**7.60**	**6.90**	**6.30**	**5.70**	**5.40**
24F1561	DT-7058	NC	115	120±18	**7.60**	**6.90**	**6.30**	**5.70**	**5.40**
24F1562	DT-7059	NO	115	180±27	**8.15**	**7.40**	**6.75**	**6.15**	**5.80**
24F1563	DT-7060	NC	115	180±27	**8.15**	**7.40**	**6.75**	**6.15**	**5.80**
24F1566	DT-7014	NC	6.3	60±9	**7.00**	**6.35**	**5.80**	**5.25**	**4.95**
24F1571	DT-7076	NC	230	180±27	**8.75**	**7.95**	**7.25**	**6.60**	**6.20**

MAKE NEWARK YOUR ONE POINT SOURCE FOR ALL YOUR ELECTRONIC NEEDS

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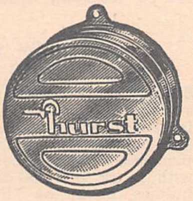
HURST MOTORS

40 INCH-OUNCE SYNCHRONOUS MOTOR



For Heavy Duty Continuous Timing
This compact motor is engineered for tough jobs demanding accurate timing. It has excellent shock and vibration resistance and will start instantly at full torque (40 in. ounces at 1 RPM). It will not overheat during continuous duty nor in a stall position. DIMENSIONS: 2½'' dia. 1¾'' depth. WEIGHT: 12 oz. SHAFT SIZE: 3/16'' dia. flatted. SHAFT LENGTH: 1''. MOUNTING: 3 No. 6 holes spaced 120°. POWER: 60 cps. AC. 95/130V., 7 Watts. ROTATION: Clockwise facing shaft. MAX. TEMP. RISE: 40°C above ambient. SHOCK RESISTANCE: 100g without motor damage. Available for a wide variety of applications. Useful for all manufacturers. Over 58 percent of light equipment and appliance makers use synchronous motors! Shipping weight, 1 lb.

Stock Number	Mfg. Type	RPM	1-49	50-71	72-107
24F1450	SM-1	1	9.08	8.17	7.26
24F1451	SM-4	4			
24F1452	SM-6	6			
24F1453	SM-10	10			
24F1454	SM-30	30			
24F1455	SM-60	60			

80 Inch-Ounce Reversible Synchronous Motors. Maintains complete timing accuracy in both clockwise and counterclockwise directions. SPDT switching. Dimensions: 2½'' dia. Shaft size: 3/16" dia. Shaft length, ¾ or 1" standard. Power: 60 cps. AC 95/130V., 7 watts. Other specifications same as above. Shpg. wt., 1 pound 4 ounces.

24F1456	DA-1	1	10.80	9.72	8.64
24F1457	DA-4	4			
24F1458	DA-6	6			
24F1459	DA-10	10			
24F1460	DA-30	30			
24F1461	DA-60	60			

40 Inch-Ounce Synchronous Motor. Same as Series SM but supplied with electrically-actuated positive clutch and brake, is 2 1/16" L. Starts within 10 milliseconds, stops within 1/10° at 1 RPM or 6° at 60 RPM. Motor runs continuously, clutch and brake controlled by switching actuator only. Shpg. wt., 20 oz.

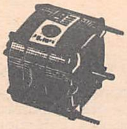
24FX1465	PC-SM-1	1	13.20	11.88	10.56
24FX1466	PC-SM-4	4			
24FX1467	PC-SM-6	6			
24FX1468	PC-SM-10	10			
24FX1469	PC-SM-30	30			
24FX1470	PC-SM-60	60			

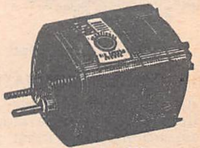
80 Inch-Ounce Reversible Synchronous Motor. Same as Series RSM but with clutch and brake (as above). Shpg. wt., 22 oz.

24FX1471	PC-DA-1	1	14.92	13.42	11.94
24FX1472	PC-DA-4	4			
24FX1473	PC-DA-6	6			
24FX1474	PC-DA-10	10			
24FX1475	PC-DA-30	30			
24FX1476	PC-DA-60	60			

BORG

4 POLE SYNCHRONOUS MOTORS


1005-4SY


1003-4SY

Synchronous permanent split capacitor type. No cut out switch is used. Can be reversed with a DPDT switch. Torque same in both directions. Starting torque min. of double the rated syn. torque with average of 3 to 4 times this fig. Rated 8.7 Watts on 110V. 50 or 60 cycles, 110-220V. * is 11 watts. On 50 cycles the output speed will be 5/6 of the listed speed. Size: 1003—2⅞x2 9/16", shaft dia., .25". 1005—2¼x2 9/16", shaft dia., 1.876", mounting size for both 2.696". Geared motor can be mounted with shaft in 9, 12, 3, or 6 o'clock positions. Wt., 3 lbs.

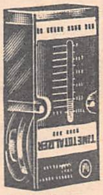
Stk. No.	Type	Output	Rated Sync. Torque-oz. in.	1-9	10-49	50-199
12F860	1003-4SY	300 RPM	1.3	31.96	28.78	26.95
12F861	1003-4SY	180 RPM	2.1	31.96	28.78	26.95
12F862	1003-4SY	120 RPM	3.2	33.26	29.94	28.04
12F863	1003-4SY	60 RPM	7.0	33.26	29.94	28.04
12F864	1003-4SY	30 RPM	14.0	33.26	29.94	28.04
12F865	1003-4SY	10 RPM	41.0	35.87	32.29	30.25
12F866	1003-4SY	3 RPM	138.0	37.11	33.41	31.29
12F867	1003-4SY	1 RPM	150.0	37.11	33.41	31.29
12F868	1005-4SY*	1800 RPM	.56	25.17	22.66	21.22

*Without gear train.

MOTOR CAPACITOR

A 0.8 mfd capacitor that is required for the above listed motors. Size: 3''x1'' dia. Shipping wt., ½ lb.
12F869. 1-9............**1.07** **10-49**............ **.89** **50-199**............ **.87**

LELAND TIME TOTALIZERS



The Leland time totalizer is a small, inexpensive, direct-reading indicator used to show accumulated hours of operation for any AC or DC equipment within limits specified. The entire unit is hermetically sealed in clear plastic for protection against moisture and other adverse conditions. Electrical connections are made to the totalizer by means of 2 screw terminals. Functionally; the totalizer consists of a mercury coulometer operated byan integral compensated network, with power supply. 1.06" wide x 2.18" long x 0:59" thick.

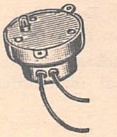
24F1478. Model ETG5265-1. 24-32 VDC, .5 watts, 0-1000 hour range, oper temp. —35°C to 71°C, ±6% accuracy, Weight 1.2 oz.

1-24	25-50	51-99	100-249
15.25	14.50	13.72	10.70

24F1479. Model ETG5266-1. 105-125 VAC, .5 watts, 50 to 2400CPS, 0-1000 hour range, oper. temp. —35°C to 71°C, ±6% accuracy, Weight 1.2 oz.

1-24	25-50	51-99	100-249
14.10	13.40	12.70	9.89

CONTROLS COMPANY OF AMERICA



- **Magnetic Braking**
- **Phosphor Bronze Bearings**
- **Life Time Permanent Magnet**
- **Full Synchronous Operation**
- **No Coasting Feature**

PERMANENT MAGNET

SYNCHRONOUS ELECTRIC MOTORS

These motors are of the permanent magnet design which makes them more reliable at higher torques. May be used in timing devices, computers, totalizers. Has positive synchronous operation, phosphor bronze bearing surfaces, magnetic brake, no coasting. Special lubrication for 150°F to minus 15°F with immediate starting. Both motors are 60 cyc., 3 w., 115 volt models, clockwise rotation. Dimensions: Type PM100-1 57/64" x 2 11/64" x 1 13/64", Type PM200-2½"x2⅛"x1 5/32". Both have ¼" dia. x 9/16" long shaft with 7/64" flat. Shpg. wt. 8 oz.

1 RPM Synchronous Motors

Stk. No.	Type	1-9	10-24	25-49	50-99	100-249
24F1654	PM-100*	6.47	5.50	4.85	4.33	3.88
24F1656	PM-100†	6.47	5.50	4.85	4.33	3.88
24F1646	PM-200*	6.97	6.00	5.35	4.83	4.38
24F1647	PM-200†	6.97	6.00	5.35	4.83	4.38

*17" oz. torque; †35" oz. hi-torque.

4 RPM Synchronous Motors

24F1655	PM-100**	6.47	5.50	4.85	4.33	3.88
24F1657	PM-100‡	6.47	5.50	4.85	4.33	3.88
24F1648	PM-200**	6.97	6.00	5.35	4.83	4.38
24F1649	PM-200‡	6.97	6.00	5.35	4.83	4.38

**4¼" oz. torque; ‡8¾" oz. hi-torque.

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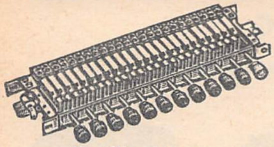
SWITCHCRAFT INC. SWITCHES

PUSH-BUTTON MULTI-SWITCHES


Non-Illuminated

Illuminated

NON-ILLUMINATED MULTI-SWITCH PUSH BUTTONS

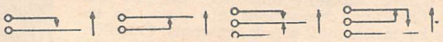
An unusually flexible approach to push-button design! Switch frames and switch stacks are interchangeable and are offered separately for widest possible selection. For a complete push-button assembly, you must order a frame, plus switch stacks for each button on the frame! All frames can be set up for inter-lock, non-lock, all-lock, or combinations of interlock and non-lock, or all-lock and non-lock action. Interlock action restores to normal any previously actuated buttons . . . non-lock is momentary action for each button . . . all-lock is accumulative locking, with restoration of all buttons to normal when release button is depressed. Switches mount on up to 3/8" panel, with 3 5/16" overall depth. Center to center distance between buttons is 5/8". Aver. Shipping weight, each, 1½ lbs.

Stock No.	Mfr's No.	No. of Stations	1-49	50-99	100 up
22F349	7100	1	4.41	3.75	3.38
22F350	7200	2	5.00	4.25	3.83
22F351	7300	3	5.73	4.88	4.39
22F352	7400	4	7.06	6.00	5.40
22F353	7500	5	8.23	7.00	6.30
22F354	7600	6	9.41	8.00	7.20
22F355	7700	7	10.58	9.00	8.10
22F356	7800	8	11.76	10.00	9.00
22F357	7900	9	12.94	11.00	9.90
22F358	71000	10	14.11	12.00	10.80
22F359	71100	11	15.29	13.00	11.70
22F360	71200	12	16.46	14.00	12.60

Series 70 Silver Contacts

Interchangeable switch stacks for multi-switch frames above. Two types are offered . . . silver contacts for power circuits and palladium for guide work. All are rated at 3 amps, 300 watts AC. When ordering, if more than one circuit will be required, in order to balance load on plunger specify two (or more) stacks. For example, if two Form "C" circuits are required, specify two No. 73 (or whatever series needed) rather than one No. 76; locate the stacks to balance load on plunger for easier action. Shpg. wt.: 1 oz.

BASIC CONTACT FORMS FOR SERIES 70



Series 70 Silver Contacts

Stock No.	Contacts	Mfr's. No.	1-49	50-99	100 up
22F361	1 "A"	71	.29	.25	.23
22F362	1 "B"	72	.29	.25	.23
22F363	1 "C"	73	.35	.30	.27
22F364	1 "D"	73D	.41	.35	.32
22F365	2 "A"	74	.47	.40	.36
22F366	2 "B"	75	.47	.40	.36
22F367	2 "C"	76	.56	.48	.43
22F368	2 "D"	76D	.68	.58	.52

Mounting screws and pressure plate furnished with switch.

Series 70P

Stock No.	Contacts	Mfr's. No.	1-49	50-99	100 up
22F369	1 "A"	71P	.35	.30	.27
22F370	1 "B"	72P	.35	.30	.27
22F371	1 "C"	73P	.47	.40	.36
22F372	1 "D"	73PD	.53	.45	.41
22F373	2 "A"	74P	.56	.48	.43
22F374	2 "B"	75P	.56	.48	.43
22F375	2 "C"	76P	.68	.58	.52
22F376	2 "D"	76PD	.82	.70	.63

- Modern square button design
- Uniform lighting
- Knurled retaining collar
- Quick, Easy, Lamp replacement

● *NEW* SERIES 21000 ILLUMINATED PUSH BUTTON MULTI-SWITCH

SERIES 21000. Similar in characteristics to non-illuminated multi-switches but also include: modern square button design with front and side illumination; lamp diffusers that provide uniform lighting; knurled retaining collar for quick and easy lamp replacement. Plunger centers are 5/8". Type listed are "L" Series with black buttons and white jewels which illuminate when buttons are in the "IN" position. Can be used with either 6V or 28V lamps depending on power source. Unit comes less lamps and switch stacks.

Stk. No.	Mfr. No.	No. of Stations	1-49	50-99	100-up
26F727	21100	1	6.76	5.75	5.18
26F728	21200	2	8.53	7.25	6.53
26F729	21300	3	11.47	9.75	8.58
26F730	21400	4	14.51	12.25	10.00
26F731	21500	5	17.35	14.75	13.28
26F732	21600	6	20.29	17.25	15.53
26F733	21700	7	23.52	20.00	18.00
26F734	21800	8	26.46	22.50	20.25
26F735	21900	9	29.40	25.00	22.50
26F736	211000	10	32.34	27.50	24.75
26F737	211100	11	35.18	30.00	27.00
26F738	211200	12	38.22	32.50	29.25

LOCK-OUT BAR "K" SERIES

Lock out bar: This device when added to the back of the standard MULTI-SWITCH frame prevents the operation of more than one button at a time. For example, a switch with interlock function automatically releases a previously actuated station when a new station is depressed, but it is possible to depress more than one station simultaneously, unless the "K" Series Lockout has been added. Available from 2 to 37 stations for a single frame.

Stock No.	Mfr's. No.	No. of Stations	1-49	50-99	100 up
22F280	K-02	2	1.76	1.50	1.35
22F281	K-03	3	1.85	1.58	1.42
22F282	K-04	4	1.91	1.68	1.46
22F283	K-05	5	2.00	1.70	1.53
22F284	K-06	6	2.06	1.75	1.58
22F285	K-07	7	2.15	1.83	1.64
22F286	K-08	8	2.21	1.88	1.69
22F287	K-09	9	2.35	2.00	1.80
22F288	K-10	10	2.50	2.13	1.91
22F289	K-11	11	2.65	2.25	2.03
22F290	K-12	12	2.79	2.38	2.14

SOLENOID RELEASE—"J" SERIES

Solenoid Release: A simple solenoid assembly (J-Series) is available that can be added on the end of the standard frame assembly by two screws. The numbers listed below are for use in 115 volt, 60 cycle AC circuits; on special order other voltages available.

Stock No.	Type	Funct. Used On	Voltage	1-49	50-99	100 up
22F295	J-1	Interlock	115 V.A.C.	5.00	4.25	3.83
22F296	J-3	All-lock	115 V.A.C.	5.59	4.75	4.28

Complete with mounting bracket and screws.

LAMPS FOR 21000 SERIES

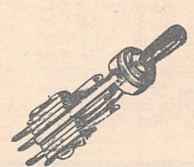
25F123. Ind. No. 328 6 volt lamp Each .70; Lots of 10 each .428

25F122. Ind. No. 327 28 volt lamp Each .90; Lots of 10 each .55

All other Switchcraft Multi-switches available from NEWARK on special order. For additional information write for FREE CATALOG 26F739.

LEV-R-SWITCHES

Have silver contacts, rated at 3 amps, 120 volts. Springs are assembled into conventional stack assembly, insulated from each other by bakelite spacers with hard rubber tubing. Overall length, 3 17/64"; width, 5/8". With removable black plastic knob and mounting hardware. *Single lever closes one of two circuits, keeping other open. †Single lever opens one of two circuits, keeping other closed.



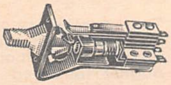
Spring Return		Locking Type					
Stk. No.	Type	Stk. No.	Type	Action	1-49	50-99	100-up
22F300	3001	22F311	3001L	SPST, NO	1.15	.98	.88
22F301	3002	22F312	3002L	SPST, NC	1.15	.98	.88
22F302	3003	22F313	3003L	SPDT	1.32	1.13	1.01

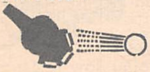
Spring Return		Locking Type					
Stk. No.	Type	Stk. No.	Type	Action	1-49	50-99	100 up
22F303	3004	22F314	3004L	DPST, NO	1.47	1.25	1.13
22F304	3005	22F315	3005L	DPST, NC	1.47	1.25	1.13
22F305	3006	22F316	3006L	DPDT	1.62	1.38	1.24
22F306	3033	22F317	3033L	SPDT, 3 pos., NO	1.47	1.25	1.13
22F307	3034	22F318	3034L	DPST, 3 pos., NO*	1.53	1.30	1.17
22F308	3035	22F319	3035L	DPST, 3 pos., NC†	1.53	1.30	1.17
22F309	3036	22F320	3036L	DPDT, 3 pos., NC	1.71	1.45	1.31
22F310	3037	22F321	3037L	DPDT, 3 pos., NO	1.73	1.48	1.33

Note: Switchcraft Series 13000 Lev-R Switches which have longer mounting bushing (3/8") are available from Newark.

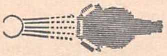
● *NEW* COLOR ILLUMINATED 25000 SERIES SWITCH

- ONE SWITCH—ONE LAMP REPLACES ORDINARY SWITCH AND UP TO 3 INDICATOR LAMPS
- FURNISHES UP TO THREE FILTERED COLORS—UP TO 8 SWITCHING CIRCUITS

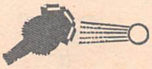




Lever Is Actuated in
Up Position
First Color Shows



Lever Is Actuated in the
Neutral Position
Second Color Shows



Lever Is Actuated in the Down Position
Third Color Shows

An illuminated switch to color code switching position. Available in 2 or 3 position models. Individaul colors to indicate individaul circuit. One switch, one lamp replaces any three ordinary indicators. Reduces panel space. Minimizes costly wiring. Smooth nylon roller action of the lever asures reliability, dependability and long switch life. Requires only 2¼" behind panel. Ideal for multi operation. Complete with 6 volt 200Ma lamp and six color chips, Red, Green, Amber, Yelow, Blue and White. 2¼"L x 39/64"W x 17/32"H.

2 POSITION TYPE

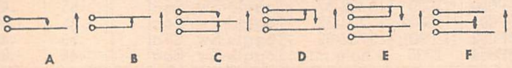
Stk. No.	Locking Type	Stk. No.	Non-locking Type	Cont. Assembly	1-49	50-99	100-Up
26F700	25201L	**26F704**	25201	1-A	2.35	2.00	1.80
26F701	25203L	**26F705**	25203	1-C	2.50	2.13	1.91
26F702	25206L	**26F706**	25206	2-C	2.94	2.50	2.25
26F703	25209L	**26F707**	25209	3-C	3.38	2.88	2.59

3 POSITION TYPE

Stk. No.	Locking Type	Stk. No.	Non-locking Type	Cont. Assembly	1-49	50-99	100-Up
26F708	25304L	**26F712**	25304	1-A	2.65	2.25	2.03
26F709	25306L	**26F713**	25306	1-C	2.94	2.50	2.25
26F710	25308L	**26F714**	25308	2-A	3.23	2.75	2.48
26F711	25312L	**26F715**	25312	2-C	3.53	3.00	2.70

26F716 Color Chip Kit K-105 consists of one chip per kit. Red, Green, Amber, Yellow, Blue and White............ | .23 | .20 | .18

BASIC CONTACT FORMS FOR 25000 SWITCH



BUTTON SWITCHES

Button Switch

Tiny Switches

Cord Switch

Non-locking, push-button switch. Rated at 250 mills, non-inductive load, AC, 30 watts max. Size: ½"Dx1"L. Wt. 2 oz.

Stk. No.	Type	Description	Contact* Arrange.	1-49	50-99	100-Up
22FX229	903	Red button	1C	**.88**	**.75**	**.68**
22FX230	903D	Red button	1D			
22FX233	913	Black button	1C			
22FX234	913D	Black button	1D			
22FX231	923	Red button	1C	**1.03**	**.88**	**.79**
22FX232	923D	Red button	1D			
22FX235	933	Black button	1C			
22FX236	933D	Black button	1D			

TINY SWITCHES

Subminiature design. Fine silver contacts rated 3 amps or 300 watts max., 115V AC, non-inductive load. Size: 7/16D.x11/16"L. Wt., 3 oz.

22FX237	951	Red button	1A	.53	.45	.41
22FX238	952	Red button	1B	.53	.45	.41
22FX240	961	Black button	1A	.53	.45	.41
22FX241	962	Black button	1B	.53	.45	.41
22FX239	953	Red button	1C	.59	.50	.45
22FX242	963	Black button	1C	.59	.50	.45

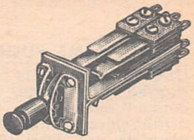
CORD OR PENDANT SWITCHES

Nickel plated housing incorporates Series 903 and 913 button switches shown above. Can be used for remote control switching. Dia. 11/16". Approx. length 23/16". Shipping weight, 3 oz.

22FX243	E903	Red button	1C	**1.47**	**1.25**	**1.13**
22FX244	E903D	Red button	1D			
22FX245	E913	Black button	1C			
22FX246	E913D	Black button	1D			

*Numeral indicates No. of sets of contacts.

LEVER LOCK SWITCH 26000 SERIES



Has the same features as the Telever switches. Available in 2 and 3 position models along with Lever-Lock. 4⅞L, 13/16H, ⅞"W, Safety factor: no shock, vibration or unintended operation.

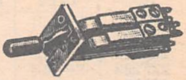
TWO POSITION TYPE

Stk. No.	Mfr. No.	Cont. Assembly	1-49	50-99	100-up
26F717	26206L	2-C	**5.00**	**4.25**	**3.83**
26F718	26208L	4-A	**5.46**	**4.55**	**4.10**
26F719	26212L	4-C	**6.18**	**5.15**	**4.64**
26F720	26212DL	4-D	**6.60**	**5.50**	**4.95**

THREE POSITION TYPE

Stk. No.	Mfr. No.	Cont. Assembly	1-49	50-99	100-up
26F721	26306L	1-C	**5.00**	**4.25**	**3.83**
26F722	26308L	2-A	**5.46**	**4.55**	**4.10**
26F723	26312L	2-C	**6.18**	**5.15**	**4.64**
26F724	26312DL	2-D	**6.60**	**5.50**	**4.95**
26F725	26316L	4-A	**7.38**	**6.15**	**5.54**
26F726	26324L	4-C	**8.10**	**6.75**	**6.08**

TELEVER SWITCHES



Rugged telephone type lever switches featuring "T-Beam" construction. Sturdy steel frame has Irridite finish over heavy cadmium plating. Nylon rollers on lever provide smooth action. Welded cross bar Palladium contacts rated at 3 amps, 120 volts, non-inductive load. Size, 4¼x13/16x⅞". Wt., 3 oz.

2-POSITION TYPES

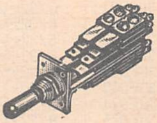
Non-Locking		Locking					
Stk. No.	Type	Stk. No.	Type	Action	1-49	50-99	100 up
22F322	6006	**22F331**	6006L	DPDT	**2.94**	**2.50**	**2.25**
22F323	6008	**22F332**	6008L	4PST, NO	**3.29**	**2.80**	**2.52**
22F324	6009	**22F333**	6009L	3PDT	**3.53**	**3.00**	**2.70**
22F325	60012	**22F334**	60012L	4PDT	**4.00**	**3.40**	**3.06**

3-POSITION TYPES

22F327	6036	**22F336**	6036L	DPDT(SPDT ea side)	**2.94**	**2.50**	**2.25**
22F328	6038	**22F337**	6038L	4PST,NO (DPST ea side)	**3.29**	**2.80**	**2.52**
22F329	60312	**22F338**	60312L	4PDT(DPDT ea side)	**4.00**	**3.40**	**3.06**
22F330	60324	**22F339**	60324L	8PDT(4PDT) ea side)	**5.88**	**5.00**	**4.50**

22F340. 530 Escutcheon Plate. 2¼x31/32". | **.35** | **.30** | **.27**

TELEVER SWITCHES



Similar to the 6000 Series except: frame is Irridescent Irridite finish over cadmium plating. Requires 15/32" diameter hole for mounting in panels up to ¼" thick. Size 413/32x13/16x⅞". Shpg. wt. 3 oz. **May be converted to "locking" by removing stop plate.**

2-POSITION TYPES

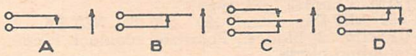
Non-Locking						
Stk. No.	Type	*Contact Assembly	Action	1-49	50-99	100 up
22FX215	16006	2-C	DPDT	**2.94**	**2.50**	**2.25**
22FX216	16006D	2-D	DPDT	**3.36**	**2.80**	**2.52**
22FX217	16008	4-A	4PST	**3.36**	**2.80**	**2.52**
22FX218	16009	3-C	3PDT	**3.53**	**3.00**	**2.70**
22FX219	160012	4-C	4PDT	**4.00**	**3.40**	**3.06**
22FX220	160012D	4-D	4PDT	**4.41**	**3.75**	**3.38**
22FX221	160024	8-C	8PDT	**5.88**	**5.00**	**4.50**

3-POSITION TYPES

Stk. No.	Type	*Pos. 1	*Pos. 2	Action	1-49	50-99	100 up
22FX222	16036	1-C	1-C	DPDT	**2.94**	**2.50**	**2.25**
22FX223	16036D	1-D	1-D	4PDT	**3.36**	**2.80**	**2.52**
22FX224	16038	2-A	2-A	4PST	**3.36**	**2.80**	**2.52**
22FX225	160312	2-C	2-C	4PST	**4.00**	**3.40**	**3.06**
22FX226	160312D	2-D	2-D	4PDT	**4.41**	**3.75**	**3.38**
22FX227	160316	4-A	4-A	8PST	**5.18**	**4.40**	**3.96**
22FX228	160324	4-C	4-C	8PDT	**5.88**	**5.00**	**4.50**

*Numeral indicates No. of sets of contacts.

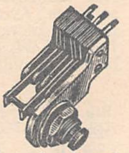
BASIC CONTACT ARRANGEMENT FOR TELEVER



Newark's field personnel and sales force are the industry's most experienced. They know electronics equipment and are aware of your problems. Whatever your needs—whatever your location—call on a Newark representative—he's at your disposal at all times.

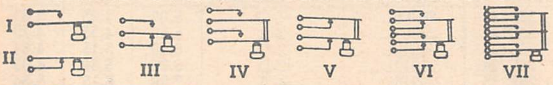
SWITCHCRAFT

FLAT FRAME PUSH-BUTTON SWITCHES



Unusually versatile stacked units built on rugged flat frame. By stacking standard contact assemblies, many useful switching arrangements can be made up. Fine silver contacts are used throughout for minimum resistance . . . all rated at 3 amps, 120v AC. One-piece Kolonite shaft and button need not be removed for mounting. Switches mount in ⅜'' hole. Size: 1 29/32'' long x ¾'' wide. Depth depends on contact arrangement chosen. Shipping weight, each 2 oz.

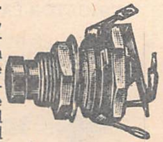
CONTACT CIRCUITS FOR FLAT FRAME SWITCHES



Stock No.	Mfr's. Type	Circuit Figure	Switch Action	1-49 EA.	50-99 EA.	100 up EA.
22F200	FF1001	I	SPST NO	.62	.53	.47
22F201	FF1002	II	SPST NC	.62	.53	.47
22F202	FF1003	III	SPDT	.71	.60	.54
22F203	FF1004	IV	DPST NO	.76	.65	.59
22F204	FF1005	V	DPST NC	.76	.65	.59
22F205	FF1006	VI	DPDT	.91	.78	.70
22F206	FF1009	VII	3PDT	1.23	1.05	.95

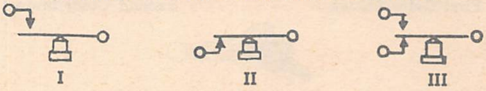
Series 13000 Lev-R switches available on special order.

LITTEL SWITCHES



Tiny momentary-contact push-buttons . . . no bigger than a small phone jack! Rugged, dependable action. All contacts are thoroughly insulated from panel bushing with interlocking phenolic washers. Springs are all special alloy nickel-silver . . . hand adjusted for correct action. One-piece Kolonite button and shaft need not be removed while mounting switch. Mounts in standard ⅜'' hole in ¼'' panel. Integral contacts offer low resistance. Complete with locknut and washer. Shipping weight, 1 oz.

CONTACT CIRCUITS FOR LITTEL SWITCHES



BLACK BUTTON

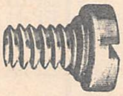
Stock No.	Type	Circuit Figure	Switch Action	1-49 EA.	50-99 EA.	100 up EA.
22F207	201	I	SPST NO	.53	.45	.41
22F208	202	II	SPST NC	.53	.45	.41
22F209	203	III	SPDT	.59	.50	.45

RED BUTTON

Stock No.	Type	Circuit Figure	Switch Action	1-49 EA.	50-99 EA.	100 up EA.
22F210	101	I	SPST NO	.53	.45	.41
22F211	102	II	SPST NC	.53	.45	.41
22F212	103	III	SPDT	.59	.50	.45

APM SWITCH SEALING DEVICES AND SELF-SEALING SCREWS

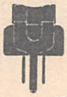
APM SEELSKREWS



Seelskrews are single-unit fasteners which form an absolute seal against any surface. They are grooved under the head and have a silicone rubber o-ring pressed into the groove. Maintain seal even after frequent removal from equipment. Range: —160°F to +500°F.

Stock No.	Size	Head Depth	Head Dia.	1-49 EACH	50-499
30F018	4/40x¼''	.069	.220	.12	9.00 per C
30F019	4/40x⅜''	.069	.220		
30F020	4/40x½''	.069	.220		
30F039	4/40x1''	.069	.220		
30F021	6/32x¼''	.083	.271		
30F022	6/32x⅜''	.083	.271		
30F023	6/32x½''	.083	.271		
30F040	6/32x⅝''	.083	.271		
30F042	6/32x⅞''	.083	.271		
30F043	6/32x1''	.083	.271		
30F024	8/32x⅜''	.097	.323		
30F025	8/32x½''	.097	.323		
30F026	8/32x¾''	.097	.323		
30F044	8/32x⅝''	.097	.323		
30F045	8/32x¾''	.097	.323		
30F047	8/32x1''	.097	.323		
30F027	10/32x⅜''	.113	.374	.15	11.50 per C
30F028	10/32x½''	.113	.374		
30F029	10/32x¾''	.113	.374		
30F048	10/32x⅝''	.113	.374		
30F051	10/32x1 ''	.113	.374		
30F030	10/24x⅜''	.113	.374		
30F055	10/24x1''	.113	.374		
30F033	¼/20x½''	.148	.493		
30F035	¼/20x1''	.148	.493		
30F056	¼/20x⅜''	.148	.493		
30F057	¼/20x⅝''	.148	.493		
30F058	¼/20x⅞''	.148	.493		
30F059	¼/20x1¼''	.148	.493		

BLADED POWER CONNECTORS



Type UP120M. Miniature. Rated 125 V-15 amps to 250 V-10 amps. Meet MIL-C-3767. High impact glass-filled melamine insert. 2 parallel blades.
30F016. 1-499, **NET EA.**.... **.77** 500-999, **NET EA.**.... **.64**
Type UP121M. 3 blades gnd. type.
30F017. 1-499, **NET EA.**............... **.80** 500-999, **NET EA.**............... **.67**
Type N-UP121M. 3 blades. Polarized contact blade. Spring loaded grounding blade.
30F061. NET EA... **.97**
100-999 .... **.87**

NEWARK—carries complete lines of top quality electronic equipment.

NEWARK—can supply all your needs, whether or not they are listed in this catalog.

N-1030

N-1030B

2030B

HIGH PRESSURE SEALS FOR STANDARD TOGGLE SWITCHES

High pressure seals for all standard toggle switches. Silicone rubber chemically and mechanically bonded to nut, make these boots impervious to salt water acids, and ozone. Flexible from —160°F to +500°F. Meets MIL-B-005423A (ASG), MIL-B-19257 (Ships) and MIL-B-5423B.

Stock No.	Mfg. No.	Thread Size	Description	1-99 EACH	100-499 EACH
30F000	N1030	15/32-32	Toggle Sw. Seal	.65	.49
30F001	N1030A	15/32-32	Toggle Sw. Seal	1.25	1.05
30F002	N1030B	15/32-32	Toggle Sw. Seal	.65	.49
30F004	2030	3 hole mtg.	Toggle Sw. Seal	.46	.36

N-3030
NH-3030

NC-3030

N-5040

4080 Series

HIGH PRESSURE SEALS FOR STANDARD PUSHBUTTON SWITCHES

Meet the same weather and vibration MIL specs as above. High pressure sealing is maintained by a gasket rib, which seats firmly against any panel surface to keep out moisture, dust, or combustible vapors. Temp. Range: —160°F to +500°F.

Stock No.	Mfg. No.	Thread Size	Description	1-99 EACH	100-499 EACH
30F006	N-3030	15/32-32	Push-button seal	.54	.43
30F007	NC-3030	15/32-32	Push-button seal	.54	.43
30F008	NH-3030	½-32	Push-button seal	.80	.65
30F009	4080	⅝-24	Dial-light seal (trans)	1.69	1.25
30F010	4080-2	15/32-32	Dial-light seal (trans)	1.69	1.25
30F011	N-5030	¼-40	Toggle switch seal (min)	1.00	.85
30F012	N-5040	¼-40	Push-button seal (min)	1.00	.85

HIGH PRESSURE SEALS

Series N-9000. High Pressure seals are designed for shafts which pass through panels or housings. Meets MIL-B-5423B. They may also be used in place of packing glands.

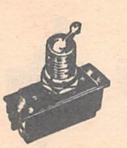
Stock No.	Mfg. No.	Thread Size	Shaft Size	Depth	Hex Size	1-99 EA.	100-499 EACH
30F013	N-9030	⅜-32	¼''	7/32''	½''	.53	.40
30F014	N-9040	¼-32	⅛''	7/32''	⅜''	.59	.49
30F015	N-9060	15/32-32	¼''	7/32''	⅝''	1.15	.98

HEXSEAL

Seals for locking type potentiometers and variable capacitors. Pressure range 30 lbs. per square inch. Temp. Range: —160°F to +500°F. Shaft size: ¼''. Thread size: ⅜-32''. Ht. 1 7/32''. Width ⅝''.

Stock No.	Type No.	1-99	100-499
30F060	NLK-9030-¼	1.15	.98

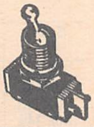
ARROW-HART AND HEGEMAN SWITCHES



POWER TYPE TOGGLE SWITCH

Type 80600-B is also rated 1 HP at 250 volts. Bakelite case. Screw terminals. Slotted sleeves 15/32" dia. 15/32" long, except 80600 is 5/16" long; 80602 is 11/32" long. *Is rated for 1 HP, 240 v. AC—1½ HP, 250 v. DC. With mounting nuts. Shpg. wt., 2 oz.

Stock No.	Mfr's. Type	Poles	Rated 125 v.	Rated 250 v.	1-9	10-99	100 up
23F035	80600	DPST	16A	8A	1.01	.83	.68
23F039	80600-B	DPST	16A	8A	1.01	.83	.68
*23F041	80602	DPST	20A	10A	1.75	1.44	1.19
23F038	80607-B	SPST	12A	6A	1.01	.83	.68
23F040	80618-A	SPDT	12A	6A	1.01	.83	.68



BALL HANDLE TOGGLE SWITCH

SPST type rated at 3 amps, 250 volts. All others rated at 3 amps, 125 volts or 1 amp at 250 volts. Shank 15/32" dia. With mounting nuts. Shpg. wt., 2 oz.

Stk. No.	Type	Poles	Shank	1-9	10-99	100 up
23F021	20994-CS	SPST	15/32"	.52	.43	.36
23F022	21615-BD	SPST	1"	.66	.55	.45
23F024	21350-BF	SPDT	15/32"	.66	.55	.45
23F023	21661-B	SPDT	1"	.81	.67	.55
23F025	20902-N	DPST	15/32"	.95	.79	.65
23F026	20902-Q	DPST	1"	1.09	.90	.74
23F028	20905-BX	DPDT	15/32"	1.09	.90	.74
23F027	20905-C	DPDT	1"	1.23	1.02	.84

PUSH BUTTON SWITCH

Type 80630. For heavy duty applications. DPST norm. open. Mom. contacts. 8 amps, 250 volts; 16 amps, 125 volts. 1¾x13/16". Sleeve length 7/16"; 15/32" dia. Screw terminals. Wt., 2 oz.
23F036. 1-9, Ea.........1.49; 10-99, Ea.........1.23; 100 up, Ea.........1.01

MOMENTARY ACTION TOGGLE SWITCHES

2 position, back connected. Slotted sleeve 15/32" dia. x 15/32" long. SPDT switches rated 1 amp, 250V and 6 amps, 125V AC-DC. Others rated 3 amps, 250V and 6 amps, 125V AC-DC. Solder lugs. 2 oz.

Stk. No.	Type	Poles	1-9	10-99	100 up
23F002	81045-FB	SPST-NO	1.00	.83	.68
23F003	81054-H	DPST-NO	1.43	1.18	.98
23F004	81051-G	SPDT	1.20	1.02	.82
23F005	81057-N	DPDT	1.58	1.30	1.07

BAT HANDLE TOGGLE SWITCHES—INTERMEDIATE SIZE

Molded phenolic base. Slotted sleeve, 15/32" long. Has solder lugs. Rated 3 amps, 250V or 6 amps, 125V, except SPDT, rated 1 amp, 250V or 6 amps. 125V AC-DC. Shpg. wt., 2 oz.

Stk. No.	Type	Poles	1-9	10-99	100 up
23F006	81015-AW	SPST	.69	.57	.47
23F007	81021-AV	SPDT	.83	.69	.56
23F008	81024-GB	DPST	1.02	.85	.70
23F009	81027-CE	DPDT	1.18	.97	.80

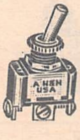
SWITCH PLATE

Type 20590-I. For switches 15/32" shank.
23F045. Ea..........3c; 10-99, Ea..........2½c; 100 up, per C............2.10

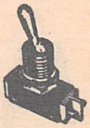
TOGGLE SWITCHES—SLOW MAKE-BREAK UTILITY SIZE

Switches have molded phenolic base-bat lever and nickel finish. SPST switches rated at 10A 250V AC; 15A 125V AC. H.P. 120-140V AC. DPDT rating 3A 250V AC; 6A 125V AC. Screw terminals. Sleeve 15/32" Long, 15/32" Dia. Wt., 2 oz.

Stk. No.	Type	Poles	1-9	10-99	100-up
23F106*	82600	SPST	.60	.49	.41
23F107**	82602	SPDT	.77	.63	.48
23F108**	82608	DPDT	1.18	.97	.80



*2 position (on-off). **3 position (on-off-on).



BAT HANDLE TOGGLE SWITCH

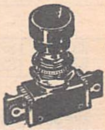
Bakelite insulation on all units. SPST type rated at 3 amps, 250 volts. All others 3 amps, 125 volts or 1 amp, 250 v. *Spring return. Underwriters' Laboratories Approved. Shank 15/32" long. †Shank 13/32" long. With mounting nuts. Shpg. wt., 2 oz.

Stk. No.	Mfr's Type	Poles	1-9	10-99	100 up
23F125	20994-NV†	SPST	.52	.43	.35
23F013	20994-LH	SPST	.52	.43	.35
23F011	21350-EH	SPDT	.66	.55	.45
23F012	20902-CX	DPST	.95	.79	.65
23F126	20905-AN†	DPDT	1.09	.90	.74
23F015	20905-FR	DPDT	1.09	.90	.74
23F058	21858-X*	DPDT	1.41	1.17	.96
23F059	21827-Q*	SPDT	.98	.81	.67
23F056	20902-DN	DPST†	1.03	.85	.70
23F057	20994-EW	SPST†	.60	.49	.41

CENTER-OFF SWITCH

Type 80638D. DPDT. Rated 5 amps, 250V AC, 10 amps, 125V AC or ¾HP 250 volts. ⅜" long shank. ¾" dia. Size: 2x15/16". UL Approved. Shipping weight, 4 oz.

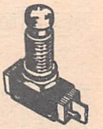
Stk. No.	Type	Pole	1-9	10-99	100-up
23F060	806380	DPDT	3.49	2.91	2.44



MOMENTARY PUSH BUTTON

Leaves 1 circuit "on", other "off". Rated 1 amp at 125 volts AC. Shank 15/32" dia., 9/16" long. *Have 7/16" long shanks and bakelite caps. Shpg. wt., 2 oz.

Stock No.	Mfr's. Type	Cap	1-9	10-99	100 up
23F029	3392	Nickel	.73	.60	.50
23F030	3392-AR*	Red	.91	.75	.62
23F031	3392A*	Black	.91	.75	.62
23F044	3392AE	Black	.91	.75	.62



PUSH BUTTON SWITCHES

Plunger type, 3 amps, 250 v.; 6 amps, 125 volts. U.L. approved. Threaded shank, 15/32x9/16" long. With mtg. nuts. *Have bakelite buttons. Shpg. wt., 2 oz.
†Momentary contact 1 amp. 125V.

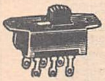
Stk. No.	Type	Poles	Cap	1-9	10-99	100 up
23F032	86710	SPST	Nickel	.94	.78	.64
23F033	86710CR*	SPST	Red	1.12	.92	.76
23F034	86710C*	SPST	Black	1.12	.92	.76
23F042	3391-GL*	†SPST	Black	.74	.61	.50
23F043	3391-GL*	†SPST	Red	.74	.61	.50

MOMENTARY CONTACT PUSH BUTTON SWITCHES

Slotted sleeve—15/32" dia. Solder lug terminals. 9/16" long shank except * ½". SPDT rated 1 amp, 250V or 6 amps, 125V. Others 3 amps, 250V or 6 amps 125V except † 3 amps, 120V. A.C. Wt., 2 ozs.

Stk. No.	Type	Poles	Button	1-9	10-99	100 up
23F115	†80511	SPST-NC	Plain	.39	.33	.27
23F116	†80541	SPST-NC	Black	.74	.61	.50
23F117	†80541-R	SPST-NC	Red	.74	.61	.50
23F118	†80511-E	SPST-NO	Plain	.39	.33	.27
23F119	†80541-E	SPST-NO	Black	.74	.61	.50
23F120	†80541-ER	SPST-NO	Red	.74	.61	.50
23F121	*81075-Q	SPST-NO	Plain	1.18	.97	.80
23F122	*81081-G	SPDT-NC	Plain	1.31	1.08	.89
23F123	*81084-G	DPST-NO	Plain	1.57	1.30	1.07
23F124	*81087-J	DPDT-NC	Plain	1.70	1.41	1.16
23F037	80857	2 cir. lever sw.		1.12	.93	.74

CONTINENTAL-WIRT SLIDE SWITCHES



A full range for quality switches for low current and heavy-duty applications. All standard contacts and terminals are silver plated. Extremely low contact current and minimum noise application. Zinc-cadium treated for corrosion-resistance. Available with solder protector board to prevent shorting to chassis mounting.

700 Series .75 amp AC/DC or .5 amp

Stk. No.	Type	Circuit	1-9	10-99	100-499	500-999
23F110	G-723	SPST	.11	.10	.08	.05
23F111	G-724	SPDT	.11	.10	.08	.05
23F112	G-725	DPST	.17	.15	.12	.08
23F113	G-726	DPDT	.18	.16	.13	.09
23F525	G-732	SPDT-SR	.21	.18	.15	.10
23F526	G-742	OPDT	.60	.54	.43	.24
Midget "Swidget" 5 amp AC/DC at 125V						
23F527	G-126	DPDT	.33	.29	.23	.15

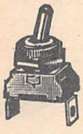
300 Series 3 amp AC, 1 amp AC-DC

Stk. No.	Type	Circuit	1-9	10-99	100-499	500-999
23F528	G-323	SPST	.11	.10	.08	.06
23F529	G-324	SPDT	.11	.10	.08	.06
23F530	G-325	DPST	.22	.20	.16	.11
23F531	G-326	DPDT	.22	.20	.16	.11
23F532	G-328	DPTT	.28	.25	.20	.13
23F533	G-332	SPDT-SR	.22	.20	.16	.11
23F534	G-337	DPDT-SR	.35	.31	.25	.17
23F535	G-338	DPQT	.55	.49	.39	.26

Cont.:

Stk. No.	Type	Circuit	1-9	10-99	100-499	500-999
23F536	G-342	QPDT	.71	.63	.51	.34
23F537	G-369	TPDT	.46	.41	.33	.22
600 Series 6 amp AC, 1 amp DC at 125V						
23F538	G-623	SPST	.25	.13	.10	.07
23F539	G-624	SPDT	.15	.13	.10	.07
23F540	G-625	DPST	.15	.22	.18	.12
23F541	G-626	DPDT	.27	.24	.20	.13
23F542	G-628	DPTT	.41	.37	.30	.20

CUTLER-HAMMER SWITCHES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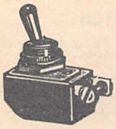
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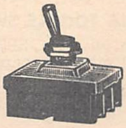
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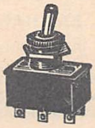
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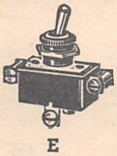

E

QUICK MAKE-BREAK TOGGLE SWITCHES

Quick make-break toggle, standard duty AC-DC switches. Small and compact switches, one hole mount type for convenient installation on flat surfaces. Designed for small motor loads, radio appliances, and other similar applications. Quick break mechanism provides speedy operation, minimizing harmful pitting of contacts. Mtg. Bushing 15/32" Dia., 15/32" L. except (*) ¼" L. and (**) 11/32" L. U/L Approved. Shpg. wt., 3 oz.

3 AMP 250 VOLT AC-DC

Stock No.	Type	Fig.	Action	Term	1-9	10-99	100-up
23F219	8280K14*	B	SPST	Lugs	.52	.43	.36
23F220	8280K16	B	SPST	Lugs	.52	.43	.36
23F335	8290K16	B	SPST	Wire	.64	.52	.44
23F336	8295K7**	B	SPST	Screw	.64	.52	.44
23F337	8295K8	B	SPST	Screw	.64	.52	.44
23F223	8360K7	D	DPST	Lugs	.95	.79	.65
23F224	8363K7	D	DPDT	Lugs	1.09	.91	.75

3 AMP 125 VOLT, 1 AMP 250 V AC-DC

Stock No.	Type	Fig.	Action	Term	1-9	10-99	100-up
23F259	8284K14	D	2 Circ.	Lugs	.70	.58	.48
23F222	8282K14	D	3-Way	Lugs	.66	.55	.45

6 AMP 125 V, 3 AMP 250 V AC-DC

Stock No.	Type	Fig.	Action	Term	1-9	10-99	100-up
23F338	8391K8	B	SPST	Wire	.71	.59	.49
23F221	8381K8	B	SPST	Lugs	.60	.50	.41
23F228	8396K8	B	SPST	Screw	.71	.59	.49
23F339	8372K7	D	DPST	Screw	1.25	1.04	.86
23F227	8370K7	D	DPST	Lugs	1.02	.85	.70
23F226	8373K7	D	DPDT	Lugs	1.18	.97	.80
23F340	8375K7	E	DPDT	Screw	1.51	1.24	1.03

3 AMP 125 VAC, .75 AMP DC

Stock No.	Type	Fig.	Action	Term	1-9	10-99	100-up
23F367	8098K3	A	SPST	Screw	.41	.35	.29

HEAVY DUTY SWITCHES AC-DC
12 AMP 125 V, 6 AMP 250 V

Stock No.	Type	Fig.	Action	Term	1-9	10-99	100-up
23F252	7321K3	F	SPST	Screw	1.01	.83	.69
23F251	7320K3	F	DPST	Screw			
23F250	7320K2**	F	DPST	Screw			

15 AMP 125 V, 10 AMP 250 V

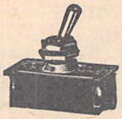
Stock No.	Type	Fig.	Action	Term	1-9	10-99	100-up
23F270	7360K7**	F	DPST	Screw	1.74	1.44	1.19
23F245	7361K5	F	SPST	Screw			
23F253	7360K8	F	DPST	Screw			

20 AMP 250 VOLT

Stock No.	Type	Fig.	Action	Term	1-9	10-99	100-up
23F255	7402K4	F	DPST	Screw	2.46	2.04	1.68

15 AMP 125 V, 10 AMP 250 V

Stock No.	Type	Fig.	Action	Term	1-9	10-99	100-up
23F229	8690K2	F	DPDT	Screw	3.84	3.18	2.62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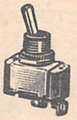
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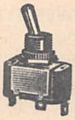
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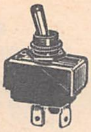
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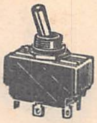

K

SNAP-ACTION TOGGLE SWITCHES

General purpose light and heavy duty AC switches designed for various AC power appliances. Employ snap-action rocker type contact mechanism. The light duty switches have housing of open construction, heavy duty switches—enclosed in a phenolic-metallic type housing. All one hole mount type. Bushing 15/32" Dia., 15/32" L. U/L Approved. (*) Center "Off" position.

6 AMP 125 V, 3 AMP 250 V

Stock No.	Type	Fig.	Action	Term.	1-9	10-99	100-up
23F341	7580K4	G	SPST	Screw	.52	.43	.36
23F342	7580K6	G	SPST	Lugs	.45	.38	.31
23F343	7581K4*	G	SPDT	Screw	.60	.50	.41
23F344	7581K6*	G	SPDT	Lugs	.49	.41	.34
23F345	7582K4	H	SPDT	Screw	.60	.50	.41
23F346	7582K6	H	SPDT	Lugs	.49	.41	.34
23F347	7590K4	J	DPST	Screw	.81	.67	.56
23F348	7590K6	J	DPST	Lugs	.66	.55	.45
23F349	7591K4*	K	DPDT	Screw	.96	.79	.65
23F356	7591K6*	K	DPDT	Lugs	.73	.61	.50
23F357	7592K4	K	DPDT	Screw	.96	.79	.65
23F358	7592K6	K	DPDT	Lugs	.73	.61	.50

HEAVY DUTY AC SWITCHES
15 AMP 125 V, 10 AMP 250 V

Stock No.	Type	Fig.	Action	Term.	1-9	10-99	100-up
23F230	7501K13	G	SPST	Lugs	.52	.43	.36
23F231	7503K13*	H	SPDT	Lugs	.60	.50	.41
23F232	7505K4	H	SPDT	Lugs	.60	.50	.41
23F235	7561K4	J	DPST	Lugs	.81	.67	.56
23F236	7565K5	K	DPDT	Lugs	.96	.79	.65
23F237	7563K4*	K	DPDT	Lugs	.96	.79	.65
23F240	7611K2	....	3PST	Lugs	1.66	1.37	1.12
23F241	7613K2*	....	3PDT	Lugs	2.04	1.69	1.41
23F243	7615K2	....	3PDT	Lugs	2.04	1.69	1.41
23F256	7612K2*	....	3PDT	Screw	2.45	2.03	1.69
23F257	7614K2	....	3PDT	Screw	2.45	2.03	1.69
23F265	7502K13*	....	SPDT	Screw	.71	.59	.49
23F266	7564K6	....	DPDT	Screw	1.19	.98	.80
23F267	7560K5	J	DPST	Screw	.96	.79	.65
23F268	7561K5	J	DPST	Lugs	.81	.67	.56
23F247	7500K14	G	SPST	Screw	.60	.50	.41

10 AMP 250 V

Stock No.	Type	Fig.	Action	Term.	1-9	10-99	100-up
23F242	7691K14	....	4PST	Lugs	2.50	2.10	1.70

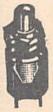
15 AMP 125 V, 10 AMP 250 V

Stock No.	Type	Fig.	Action	Term.	1-9	10-99	100-up
23F271	7610K2	C	3PST	Screw	1.93	1.60	1.31

10 AMP AT 230 AC ONLY. MOMENTARY CONTACT

Stock No.	Type	Fig.	Action	Term.	1-9	10-99	100-up
23F233	7506K3	G	SPST	Lugs	.66	.55	.45
23F234	7510K6	H	SPDT	Lugs	.78	.60	.53
23F239	7566K4	J	DPST	Lugs	1.10	.92	.75
23F238	7570K4	K	DPDT	Lugs	1.25	1.04	.86

PUSHBUTTON SWITCHES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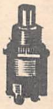
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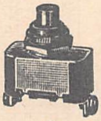
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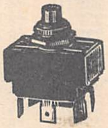
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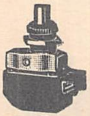
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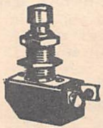
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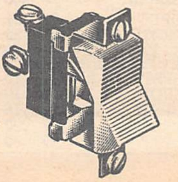
Momentary contact SPST action pushbutton switches. Normally open, circuit closed only when button is held in closed position. Wide use in refrigerators, telephone booths, closets, etc. (*) Normally closed. (†) Push-"On-Off" Switch. Shpg. wt., 3 oz.

Stock No.	Type	Fig.	Current Rating 125 VDC	Current Rating 125 VAC	Current Rating 250 VAC	Pole	Bushing	Term.	1-9	10-99	100-up
23F260	8411K4	M	¾	¾	¼	1	15/32"	Lug	.36	.32	.24
23F359	8411K6	M	¾	¾	¼	1	¼"	Lug	.36	.32	.24
23F261	8411K8*	M	¾	¾	¼	1	15/32"	Lug	.25	.21	.17
23F262	8440K2	N	....	3.4	3.0	1	15/32"	Lug	.73	.62	.50
23F360	8442K4	O	....	6.0	3.0	1	¼"	Screw	.80	.67	.56
23F361	8444K4	Q	....	15	10	1	¼"	Screw	.86	.71	.59
23F362	8448K2	P	....	15	10	2	11/32"	Screw	1.24	1.03	.85
23F363	7196K1	Q	6.0	6.0	3.0	1	½"	Screw	1.07	.88	.73
23F364	7208K4†	R	6.0	6.0	3.0	1	11/16"	Screw	.82	.68	.57



ROCKETTE APPLIANCE SWITCHES

Designed to enhance the appearance of any appliance and to provide safe and correct sequence of circuit operation. The rocker actuator is made of durable, molded white nylon and provides rugged, attractive construction. Handy, flush mounting requires 1 5/16"x¾" square hole plus two #6 mounting holes. 2 screw terminals. Current rating: 15 amps. at 125 volts or 10 amps. at 250 volts. Size: 1⅞"x2 1/32"x 1 17/32". Shpg. wt., 4 oz.

Stock No.	Type	Action	1-9	10-99	100-up
23F365	8144-K8	SPST	.73	.59	.50
23F366	8142-K8	DPST	1.13	.92	.78

CUTLER-HAMMER MILITARY SWITCHES

AIRCRAFT SWITCHES

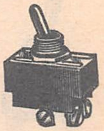
Precision engineered and thoroughly tested to meet rigid aircraft requirements. Extra ruggedness and dependability for long life under adverse conditions. Most types listed below are lever sealed to prevent entry of dust or moisture. All mount in a single hole . . . all bushings have slotted keyway for orientation receiver "On-Off" plate (see listings below for plates). Shipping weight, each, 2 oz.

NOTE: *Center position is off. †Momentary contact spring return. **Screw lug ‡Solder lug §Flush mtd.

ST-42

ST-40

ST-52


ST-50

Stk. No.	Type	JAN No.	1-9 EA.	10-99 EA.	100-up EA.	Switch Action
23F283	8801-K13	ST40A	1.27	1.06	.88	SPST**
....	....	....	....	....	....	SPST**
....	....	....	....	....	....	SPST-NC**
....	....	....	....	....	....	SPST-NC*
23F284	†8811-K12	ST40C	1.40	1.16	.97	SPST-NO**
....	....	....	....	....	....	SPST-NO**
23F285	8810-K12	ST40D	1.54	1.27	1.06	SPDT**
23F286	*8800-K13	ST40E	1.54	1.27	1.06	SPDT**
23F287	†8804-K12	ST40F	1.66	1.39	1.13	SPDT**
23F291	†*8812-K13	ST40G	1.66	1.39	1.13	SPDT**
23F288	†*8809-K13	ST40H	1.66	1.39	1.13	SPDT**
23F200	8803-K10	ST42A	1.21	1.00	.83	SPST‡
23F277	8803-K6	ST42A	.94	.78	.64	SPST‡
23F207	†8819-K9	ST42B	1.34	1.11	.92	SPST-NC‡
23F205	†8817-K9	ST42C	1.34	1.11	.92	SPST-NO‡
23FX323	8816-K5	ST42D	1.12	.92	.77	SPDT‡
23F201	8816-K9	ST42D	1.43	1.18	.98	SPDT‡
23FX324	*8802-K6	ST42E	1.12	.92	.77	SPDT‡
23F202	*8802-K10	ST42E	1.43	1.18	.98	SPDT‡
23F203	†8805-K9	ST42F	1.57	1.29	1.08	SPDT‡
23F204	†*8818-K9	ST42G	1.57	1.29	1.08	SPDT‡
23F208	†*8815-K10	ST42H	1.57	1.29	1.08	SPDT‡
23F218	§8201-K6	ST45A	1.66	1.39	1.13	SPST**
23F292	8822-K8	ST50K	1.70	1.42	1.16	DPST**
....	....	....	....	....	....	DPST**
23F293	†8828-K5	ST50L	2.05	1.71	1.39	DPST-NC**
23F294	†8826-K5	ST50M	2.05	1.71	1.39	DPST-NO**
23F295	8824-K8	ST50N	2.05	1.71	1.39	DPDT**
23F296	*8820-K10	ST50P	2.05	1.71	1.39	DPDT**
23F297	†8830-K5	ST50R	2.22	1.83	1.52	DPDT**
23F298	†*8834-K4	ST50S	2.22	1.83	1.52	DPDT**
23F299	†*8832-K4	ST50T	2.22	1.83	1.52	DPDT**
23FX326	8823-K5	ST52K	1.12	.92	.77	DPST‡
23F210	8823-K6	ST52K	1.57	1.29	1.08	DPST‡
23F214	†8829-K5	ST52L	1.27	1.06	.88	DPST-NC‡
23F215	†8827-K5	ST52M	1.27	1.06	.88	DPST-NO‡
23F211	8825-K6	ST52N	1.83	1.51	1.26	DPDT‡
23FX325	*8821-K5	ST52P	1.27	1.06	.88	DPDT‡
23F212	*8821-K6	ST52P	1.83	1.51	1.26	DPDT‡
23F216	†8831-K5	ST52R	1.48	1.22	1.02	DPDT‡
23F217	†*8835-K3	ST52S	1.48	1.22	1.02	DPDT‡
23F213	†*8833-K3	ST52T	1.48	1.22	1.02	DPDT‡
23F272	§8700-K14	ST55P	3.73	3.18	2.54	DPDT**
23F278	8803-K8	SPST	1.21	1.00	.83	SPST‡

Stk. No.	Type	MIL-S-3950A MS No. Per	1-9 EA.	10-99 EA.	100-up EA.
23FX300	8801-K22	35058-22	1.27	1.06	.88
23FX301	8801-K23	35058-24	1.27	1.06	.88
23FX302	†8813-K18	35058-25	1.40	1.16	.97
23FX303	8813-K17	35058-29	1.40	1.16	.97
23FX304	†8811-K18	35058-28	1.40	1.16	.97
23FX305	8811-K17	35058-30	1.40	1.16	.97
23FX306	8810-K15	35058-23	1.54	1.27	1.06
23FX307	*8800-K16	35058-21	1.54	1.27	1.06
23FX308	†8804-K13	35058-26	1.66	1.39	1.13
23FX309	†*8812-K14	35058-27	1.66	1.39	1.13
23FX310	8809-K16	35058-31	1.66	1.39	1.13
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23FX311	8822-K20	35059-22	1.70	1.42	1.16
23FX312	8822-K21	35059-24	1.70	1.42	1.16
23FX313	†8828-K12	35059-25	2.05	1.71	1.39
23FX314	†8826-K14	35059-28	2.05	1.71	1.39
23FX315	8824-K14	35059-23	2.05	1.71	1.39
23FX316	*8820-K16	35059-21	2.05	1.71	1.39
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23FX317	†*8834-K5	35059-27	2.22	1.84	1.51
23FX318	†*8832-K6	35059-31	2.22	1.84	1.51
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MINIATURE MILITARY SWITCHES

These switches are designed to be used in meter and all types of test circuits. Rating: 4A. at 28VDC; 1A. at 50VDC; 3A. at 115VAC. Bushing: ¼" mtg. dia. x .170" long. All have bat handle 7⁄16" long, max. dia. ⅛". Overall dimensions: ½x5⁄16x1⅜". Wt., 1 oz. *Momentary Contact. †Center off. ‡2 pos. w/o off.

Stk. No.	Type	Action	1-9	10-99	100-up
23FX327	8866K1†	SPDT	4.56	3.79	3.10
23FX328	8866K2*†	SPDT	5.15	4.29	3.50
23FX329	8866K4‡	SPDT	4.56	3.79	3.10
23FX330	8866K7	SPST	4.56	3.79	3.10
23FX331	8867K1†	DPDT	5.71	4.70	3.88
23FX332	8867K2*†	DPDT	6.64	5.54	4.52
23FX333	8867K4‡	DPDT	5.71	4.70	3.88
23FX334	8867K7	DPST	5.71	4.70	3.88

SWITCH ACCESSORIES

23F248. Model 827-228F3. On-Off Plate. For Toggle, General Purpose, and Aircraft switches. Wt., 2 oz. 1-9, **Ea.**........**4c;** 10-99, **Ea.**........**3c;** 100 up, **Ea.**........**2c**

FOUR-POLE AIRCRAFT SWITCHES

Designed for MIL-S-3950A. Shpg. wt., 2 oz.

Stk. No.	Type	Action	Term.	1-9	10-99	100-up
23FX319	7664-K5*	4PDT	Screw	4.67	3.89	3.18
23FX320	7660-K13†	4PST	Screw	3.74	3.12	2.54
23F269	7661-K6	4PST	Lugs	3.45	2.93	2.34
23F264	7663-K5**	4PDT	Lugs	4.24	3.61	2.88
23FX321	7665-K4	4PDT	Lugs	4.24	3.61	2.88
23FX322	7675-K4††	4PDT	Lugs	5.19	4.41	3.54

*MS 25068-23 †MS 25068-24 ** Center is off ††Momentary Contact

8450

PUSHBUTTON SWITCH

Aircraft Type. SPST action. Normally open, circuit closed only when button is held in closed position. Wt., 2 oz.

Stk. No.	Type	30V	125V	1-9	10-99	100 up
23F281	8450-K1	4A*	1.5A†	1.55	1.32	1.06

* 8A Rating—resistive load † 5A Rating—resistive load

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NEWARK speeds your project by off-the-shelf supply of over 70,000 items in current demand. NEWARK saves you time and money by placing your one purchase order at QUANTITY PRICES COMPETITIVE WITH THE MANUFACTURER.

TOGGLE SWITCHES

TOGGLE SWITCHES

OFF ON
ST 22K

ST12 ST22

MS35059-27

OFF ON
ST26K

ST16A ST26K

MS35058-27

ST16D ST26N

ON OFF
ST50K

ST50K

ST42

ST40

OFF ON
MS25068-27
J B T 68470

ST17D
ST27N
MS25068-27

ST 12, 16, 22, 26 series have 15/32"-32 x 29/64" long mtg. thread. ST 13, 17, 23, 27 series have 15/32"-32 x 1/4" long mtg. bushing. All are medium-duty types with normal rating of 6 amps at 125V AC, 3 amps at 250 V AC, and have solder terminals. ST 40, 42, 50 series have 15/32"-32 x 29/64" long mtg. bushing. All are heavy-duty types with normal rating of 20 amps at 125V AC, 10 amps at 250V AC, with solder and screw terminals. MS35058 and MS35059 series made under MIL-S-3950A specifications have screw terminals with solderable finish, electrical ratings same as ST40 series. 15/32"-32 x 29/64" mtg. bushing. MIL-S-3950A specifications call for lever seal for sand, dust ,and 15 ft. water submersion tests, specifies 20,000 make and break cycles, temperature range of —65°C to +75°C. All heavy duty switches have solid coin silver rockers and contacts.

Stk. No.	Jan Type	1-29	30-99	100-249	250-499	500-999	Cont. Cur. Cap.	Description	No. of Term.	Stk. No.	MIL-S-3950A No.	1-29	30-39	100-249	250-499	500-999
22F958	ST12A	.69	.65	.60	.59	.56	6	SPST, 29/64" long thread	2	23F584	MS25098-22	1.10	1.03	.96	.94	.89
22F990	ST12B	.79	.74	.69	.67	.64	6	SPST, 29/64" thread	2	23F585	MS25098-29	1.42	1.33	1.24	1.21	1.15
22F959	ST12C	.79	.74	.69	.67	.64	6	SPST, low pos. mom. on	2	23F586	MS25098-30	1.42	1.33	1.24	1.21	1.15
22F960	ST12D	.79	.74	.69	.67	.64	6	SPDT, 29/64" thread	3	23F587	MS25098-23	1.26	1.18	1.10	1.08	1.03
22F961	ST13A	.69	.65	.60	.59	.56	6	SPST, 1/4" long thread	2	......	......	......	......	......	......	......
23FX550	ST13D	.79	.74	.69	.67	.64	6	SPDT, 1/4" long thread	3	......	......	......	......	......	......	......
22F962	ST16A	.69	.65	.60	.59	.56	6	SPST, 29/64" thread	2	......	......	......	......	......	......	......
22F963	ST16D	.79	.74	.69	.67	.64	6	SPDT, 29/64" thread	3	......	......	......	......	......	......	......
22F964	ST17A	.69	.65	.60	.59	.56	6	SPST, 1/4" thread	2	......	......	......	......	......	......	......
22F965	ST17D	.79	.74	.69	.67	.64	6	SPDT, 1/4" thread	3	......	......	......	......	......	......	......
22F966	ST22K	.99	.92	.86	.84	.80	6	DPST, 29/64" thread	4	23F588	MS25100-22	1.58	1.48	1.38	1.35	1.28
22F967	ST22L	1.08	1.01	.94	.92	.88	6	DPST, 29/64" thread	4	23F589	MS25100-29	1.84	1.72	1.61	1.57	1.49
22F968	ST22M	1.08	1.01	.94	.92	.88	6	DPST, low pos. mom. on	4	23F590	MS25100-30	1.84	1.72	1.61	1.57	1.49
22F989	ST22N	1.08	1.01	.94	.92	.88	6	DPDT, low pos. mom. on	6	23F591	MS25100-23	1.71	1.60	1.50	1.46	1.39
22F969	ST23K	.99	.92	.86	.84	.80	6	DPST, 1/4" thread	4	......	......	......	......	......	......	......
22F970	ST23N	1.08	1.01	.94	.92	.88	6	DPDT, 1/4" thread	6	......	......	......	......	......	......	......
22F971	ST26K	.99	.92	.86	.84	.80	6	DPST, 29/64" thread	4	......	......	......	......	......	......	......
22F972	ST26N	1.08	1.01	.94	.92	.88	6	DPDT, 29/64" thread	6	......	......	......	......	......	......	......
22F974	ST27N	1.08	1.01	.94	.92	.88	6	DPDT, 1/4" thread	6	......	......	......	......	......	......	......
23FX551	ST40A	1.01	.84	.67	.63	.59	40	SPST, no middle pos.	2	23FX562	MS35058-22	1.24	1.03	.82	.72	.68
22F975	ST40B	1.10	.92	.74	.69	.64	40	SPST, low pos. mom. off	2	......	......	......	......	......	......	......
							40	SPST, low pos. mom. on	2	23FX564	MS35058-30	1.38	1.15	.92	.80	.75
22F976	ST40D	1.21	1.01	.81	.78	.71	40	SPDT, 29/64" thread	3	23FX565	MS35058-23	1.46	1.22	.98	.85	.80
22F977	ST40E	1.21	1.01	.81	.78	.71	40	SPDT, center pos. off	3	23FX566	MS35058-21	1.46	1.22	.98	.85	.80
22F978	ST40F	1.31	1.09	.87	.82	.76	40	SPDT, low pos. mom. on	3	23FX567	MS35058-26	1.55	1.29	1.03	.90	.85
23FX552	ST40G	1.31	1.09	.87	.82	.76	40	SPDT, both sides mom.	3	23FX568	MS35058-27	1.58	1.31	1.05	.92	.86
22F979	ST40H	1.31	1.09	.87	.82	.76	40	SPDT, low pos. mom. on	3	......	......	......	......	......	......	......
22F980	ST42A	.95	.79	.63	.59	.55	40	SPST, 29/32" thread	2	......	......	......	......	......	......	......
22F981	ST42B	1.04	.87	.69	.65	.61	40	SPST, low pos. mom. off	2	......	......	......	......	......	......	......
22F982	ST42C	1.04	.87	.69	.65	.61	40	SPST, low pos. mom. on	2	......	......	......	......	......	......	......
22F983	ST42D	1.12	.94	.75	.70	.65	40	SPDT, no middle pos.	3	......	......	......	......	......	......	......
23FX553	ST42H	1.23	1.03	.82	.77	.72	40	DPST, low pos. mom. off	3							
22F984	ST50K	1.25	1.04	.83	.78	.73	30	DPST, no middle pos.	4	23FX573	MS35059-22	1.81	1.29	1.03	.90	.85
							30	DPST, low pos. mom. off	4	......	......	......	......	......	......	......
							30	DPST, low pos. mom. on	4	23FX575	MS35059-30	2.12	1.52	1.21	1.06	1.00
22F985	ST50N	1.46	1.22	.98	.92	.85	30	DPDT, no middle pos.	6	23FX576	MS35059-23	2.09	1.50	1.20	1.05	.98
							30	DPDT, no middle pos.	6	23FX577	MS35059-21	2.09	1.50	1.20	1.05	.98
							30	DPDT, low pos. mon. on	6	23FX578	MS35059-26	2.38	1.70	1.36	1.19	1.12
22F986	ST50S	1.66	1.39	1.11	1.04	.97	30	DPDT, both sides mom.	6	23FX579	MS35059-27	2.38	1.70	1.36	1.19	1.12
22F987	ST50T	1.66	1.39	1.11	1.04	.97	30	DPDT, low pos. mom. on	6	23FX580	MS35059-31	2.38	1.70	1.36	1.19	1.12
							30	DPST, center pos. off	4	23FX581	MS35059-24	2.06	1.47	1.18	1.02	.97
							30	DPST, cent. pos. mom. off	4	23FX582	MS35059-25	2.21	1.58	1.26	1.10	1.04
							30	DPST, low pos. mom. on	4	23FX583	MS35059-28	2.23	1.60	1.28	1.11	1.05
22F988	ST52N	1.27	1.06	.85	.80	.74	30	DPDT, no middle pos.	6	......	......	......	......	......	......	......

● *NEW* HEAVY DUTY 4-POLE TOGGLE SWITCHES

The MS25068-series are designed for MIL-S-3950A and use single hole mounting with single-throw or double-throw action as designated below. Al have 15/32"-32 x 15/32" long mounting threads. All are heavy duty type with Silicon rubber bushing seals. Switch bodies are moulded of a new compound having hi-arc and low shrinkage characteristics. MIL-S-3950A specifications call for a lever seal for sand, dust and 15 foot water immersion tests, specifies 20,000 make and break cycles and a temperature range of —65°C. to +75°C. All have solid silver contacts and rocker arms. 1 11/32 wide, 1 7/16 deep, 2 7/16" overall height.

Stock No.	MIL-S-3950A No.	Description	Cont. Cur. Cap.	No. of Term.	DC-30 volts* Lamp Load Cir.	DC-30 volts* Res. Cir.	DC-30 volts* Ind. Cir.	AC-115v., 400 cps* Lamp Load Cir.	AC-115v., 400 cps* Res. Cir.	AC-115v., 400 cps* Ind. Cir.	1-29	30-99	100-249	250-499	500-999
23F592	MS25068-24	4PST-no low pos.	30	8	5	20	12	4	20	15	3.15	2.63	2.10	1.97	1.84
23F593	MS25068-25	4PST-no low, mom. off	30	8	4	18	10	2	11	5	3.60	3.00	2.40	2.25	2.10
23F594	MS25068-28	4PST-no low, mom. on	30	8	4	18	10	2	11	5	3.60	3.00	2.40	2.25	2.10
23F595	MS25068-21	4PDT-middle pos. off	30	12	5	20	12	4	20	15	3.66	3.05	2.44	2.29	2.14
23F596	MS25068-23	4PDT-no middle pos.	30	12	5	20	12	4	20	15	4.38	3.65	2.92	2.74	2.56
23F597	MS25068-26	4PDT-no middle pos., mom. on	30	12	4	18	10	2	11	5	3.87	3.23	2.58	2.42	2.26
23F598	MS25068-27	4PDT-mom. on	30	12	4	18	10	2	11	5	3.95	3.29	2.63	2.47	2.30
23F599	MS25068-31	4PDT-low pos., mom. on	30	12	4	18	10	2	11	5	3.95	3.29	2.63	2.47	2.30

* Amps per pole.

ATTENTION INDUSTRIAL BUYERS

NEWARK carries complete lines of the top quality electronic equipment. Newark can supply all your needs, whether or not they are listed in this catalog.

INDUSTRIAL TIMER CONTROLS

ONE UNIT TIMERS

For applications where dependable one-unit timers are required. Feature positive adjustments, and automatic reset. These units are all manufactured to high standards of quality and will stand up under hard usage. Heavy-duty synchronous motors operate on 115 volts-60 cyc. Type PAB and Type P contacts rated at 15 amps non-inductive load, all others 10 amps.

INSTANTANEOUS RESET SERIES PAB ONE UNIT

Units specifically designed for process control where long life and trouble-free operation is essential. In heavy steel enclosure, 7⅛x5⅛x4 1/16''. Two ½'' knockouts provided for easy access to internal terminal strip. Shipping weight, 6 lbs.

Stock No.	Type No.	Time Cycle	Calibration	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
24F283	PAB6S	6 seconds	1/10 second	55.00	52.25	49.50	46.75	44.00	41.25
24F1872	PAB15S	15 seconds	¼ second						
24FX1800	PAB30S	30 seconds	½ second						
24FX1801	PAB60S	60 seconds	1 second						
24FX1802	PAB3M	3 minutes	3 seconds						
24FX1803	PAB15M	15 minutes	15 seconds						
24FX1804	PAB30M	30 minutes	30 seconds						
24FX1805	PAB3H	3 hours	3 minutes						

SERIES S ONE UNIT

Manual reset signaling timers are designed to command visual and audible attention when a time interval is completed. Sockets on side of timer provide for connection of additional lights, alarms or controlled circuits 115v 60 cycle operation. 5x5x3¾''. 3 lbs.

Stock No.	Type No.	Time Cycle	Calibration	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
24FX1836	S-1M	1 minute	1 second	29.00	27.55	26.10	24.65	23.20	21.75
24FX1837	S-5M	5 minutes	5 seconds						
24FX1814	S-15M	15 minutes	15 seconds						
24FX1815	S-30M	30 minutes	30 seconds						
24F266	S1H	1 hour	1 minute						
24F267	S3H	3 hours	3 minutes						

SERIES P ONE UNIT

Low-cost timing units are complete with AC line cord, built-in actuating start button, and two receptacles on side of case for load and remote control circuits. 5x5x3 9/16''. Wt., 3 lbs.

Stock No.	Type No.	Time Cycle	Calibration	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
24F269	P4R	15 seconds	¼ second	33.00	31.35	29.70	28.05	26.40	24.75
24FX1813	P2R	30 seconds	½ second						
24F256	P1M	60 seconds	1 second						
24F274	P3M	3 minutes	3 seconds						
24F257	P5M	5 minutes	5 seconds						

Series PAB

Series P

Series S

AUTOMATIC RESET DELAY TIMERS

Automatic reset time delay types. Timer unit is designed for application on circuit controls where a fixed or adjustable delay is required between the closing of one circuit and closing or opening of another. Underwriters Labs. and Canadian Standard Assoc. approved and tested. 115v 60-cycle AC. May be used for 220v AC with resistor wired in series.

SERIES TD AND CTD

Expertly designed for "through the panel" mounting. 3'' diameter extra strong bakelite case with terminals at rear. Weight, 1½ lbs.

Stock No.	Type No.	Time Cycle	Calibration	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
24F275	TD15S	15 seconds	¼ second	30.50	28.98	27.45	25.93	24.40	22.88
24F276	CTD1M	60 seconds	1 second						
24F277	CTD3M	3 minutes	3 seconds						
24F278	CTD5M	5 minutes	5 seconds						

SERIES SF AND CSF

Designed for back of panel or chassis installation. 115'v 60-cycle operation. 2¾x3 1/16x7⅞⅝''. Shpg. wt., 1½ lbs.

Stock No.	Type No.	Time Cycle	Calibration	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
24F279	SF15S	15 seconds	¼ second	23.00	21.85	20.70	19.55	18.40	17.25
24F280	CSF1M	60 seconds	2 seconds						
24F281	CSF3M	3 minutes	6 seconds						
24F282	CSF5M	5 minutes	10 seconds						

SERIES H AND CH

For panel mounting. Four screws hold timer in place. Terminals at rear. 115 volt, 60 cycle operation. 3 9/16x3 7/16x3½''. Shipping weight, 1½ lbs.

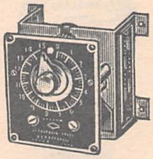
Stock No.	Type No.	Time Cycle	Calibration	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
24F296	H-15S	15 seconds	¼ second	26.50	25.18	23.85	22.53	21.20	19.88
24F297	CH1M	60 seconds	1 second						
24F298	CH3M	3 minutes	3 seconds						
24F299	CH5M	5 minutes	5 seconds						

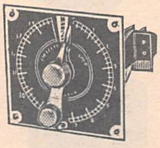
INSTANTANEOUS RESET SERIES TDAF

Designed for panel mount. Rugged snap-action switches rated at 10 amps (SPDT). 115 volt, 60 cycle operation. Size: 3⅝x4½x3⅜''. Shipping weight, 4 pounds.

Stock No.	Type No.	Time Cycle	Calibration	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
24FX1806	TDAF-15S	15 seconds	¼ second	43.00	40.85	38.70	36.55	34.40	32.25
24FX1807	TDAF-30S	30 seconds	½ second						
24FX1838	TDAF-60S	60 seconds	1 second						
24FX1808	TDAF-15M	15 minutes	15 seconds						
24FX1809	TDAF-30M	30 minutes	30 seconds						
24FX1839	TDAF-60M	60 minutes	60 seconds						

Series TD


Series SF


Series H

Series TDAF

INDUSTRIAL TIMER CONTROLS

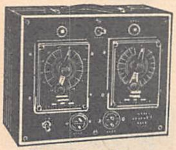
SERIES RS MANUAL SET TIMERS

Series RS

Completely enclosed for extra ruggedness! Heavy silver contacts. Mounts in 2¾" hole, requiring 3" depth. Has 3½" flange, 18" color coded leads extend from back for direct wiring. For 115 volts, 60 cycle AC. Shipping weight, 2 lbs.

Stock No.	Type	Max. Time Cyc.	Dial Cal.	1-3	4-5	6-11	12-24	25-49	50-99
24FX1821	RS-15M	15 minutes	15 seconds	18.50	17.58	16.65	15.73	14.80	13.88
24FX1822	RS-60M	60 minutes	1 minute						
24FX1823	RS-3H	3 hours	5 minutes						
24F271	RS-6H	6 hours	10-min. steps						
24F270	RS-12H	12 hours	15-min. steps						

TANDEM RECYCLING TIMER


Recycling Timer

Type A. For use with two Type ET Timing Elements listed below. Of particular value in production departments, laboratories, and for life testing of electrical apparatus. Permits practically any timing sequence. Essentially a control unit with two individual and variable plug-type timing elements in one housing. With timing elements adjusted, each cycle of operation follows in regular sequence. Once the dials are set at the interval desired, additional adjustments are not required. Controls: On-Off; Load Control Switch; male load plug and pilot lamp for each timing element. For 115V 60 cycle operation. Load relay contacts rtaed at 15 amps 115 VAC non-inductive. With carrying strap for portable use. **Type B.** Similar to Type A, but designed for built-in, tamper-proof applications. Load control switch is inside cabinet and all wiring to and from unit is done at terminal block instead of male load plugs. HWD 9x11x 6⅛". Shipping weight, 11 lbs.

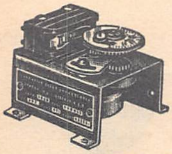
Stock No.	Description	1-3	4-5	6-11	12-24	25-49	50-99
24F285	Type A Unit	54.50	51.78	49.05	46.33	43.60	40.88
24FX1826	Type B Unit						

Newark Carries Latest Line of Industrial Timers. Order by Number

TIMING ELEMENT (2 Required)

Stk. No.	Type	Max. Time Cycle	Dial Calibr.	1-3	4-5	6-11	12-24	25-49	50-99
24FX1840	ET-3S	3 seconds	1/20 sec.	44.00	41.80	39.60	37.40	35.20	33.00
24F286	ET-6S	6 seconds	1/10 sec.						
24F287	ET-15S	15 seconds	¼ sec.						
24F288	ET-30S	30 seconds	½ sec.						
24F289	ET-60S	60 seconds	1 sec.						
24F290	ET-3M	3 minutes	3 sec.						
24F291	ET-5M	5 minutes	5 sec.						
24F292	ET-15M	15 minutes	15 sec.						
24F293	ET-30M	30 minutes	30 sec.						
24F294	ET-60M	60 minutes	60 sec.						
24F295	ET-3H	3 hours	3 min.						

SERIES CM CAM RECYCLING TIMER


Series CM

For control and testing. Snap action totally-enclosed, dustproof switch. Contacts rated 10A-115V, 10A-220V non-inductive AC. Cam and gear train easily and quickly interchangeable for longer or shorter time cycle; attach to motor chassis by single 6-32 screw. Can be set so switch is actuated from 2% to 98% of total time cycle; each cycle automatically repeats until power is turned off. Size, 3 1/16x2 13/16x2¼''. For 115 volts—60 cycle operation. For complete timer, order Motor-Switch chassis covering required time range, and gear assemblies for specific time cycles. Av. shpg. wt., 2 lbs.

MOTOR—SWITCH CHASSIS

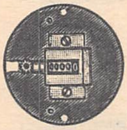
Stock No.	Mfrs. Type	Ranges Min.	Ranges Max.	Stock No.	Mfrs. Type	Ranges Min.	Ranges Max.	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
24FX1827	CM0	⅔S	6S	24FX1819	CM7	10M	90M	18.75	17.81	16.88	15.94	15.00	14.06
24FX1828	CM1	4S	36S	24F253	CM8	20M	3H						
24F268	CM2	10S	90S	24FX1820	CM9	40M	6H						
24FX1829	CM3	20S	3M	24F254	CM10	2H	18H						
24F250	CM4	40S	6M	24FX1835	CM11	3⅓H	30H						
24F251	CM5	2M	18M	24F255	CM12	8H	72H						
24F252	CM6	3M	30M										

Type C-2

GEAR ASSEMBLIES

Stock No.	Mfrs. Type	Total Time Cycle with Motor Above CM0	CM1	CM2	CM4	CM5	CM6	CM8	CM10	CM12	NET EACH
24F258	E12	⅔S	4S	10S	40S	2M	3M20S	20M	2H	8H	1.75
24F259	C12	1S	6S	15S	60S	3M	5M	30M	3H	12H	
24F260	B12	1⅓S	8S	20S	80S	4M	6M40S	40M	4H	16H	
24F261	A12	2S	12S	30S	2M	6M	10M	60M	6H	24H	
24F262	A18	3S	18S	45S	3M	9M	15M	90M	9H	36H	
24F263	A24	4S	24S	60S	4M	12M	20M	2H	12H	48H	
24F264	A30	5S	30S	75S	5M	15M	25M	2H30M	15H	60H	
24F265	A36	6S	36S	90S	6M	18M	30M	3H	18H	72H	

Over 500 Time Cycles not listed above are available on special order.

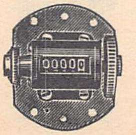

Type C-4

ELAPSED TIME METERS

Type C-5

Provide an exact record of machine hours for computing production costs, etc. of AC-operated major appliances and industrial machines. Long life synchronous heavy duty self lubricating motors, connected through gears to five digit counters. For 60 cycle AC current. We can supply instruments for other line frequencies and voltages. Series C-2A enclosed in a 3½'' bakelite meter case, and requires a 2⅞'' diameter hole in panel for mounting. Series C-5 is resettable to zero to permit direct readings with each operation, has a ¾" sq. flange, and require a 2¾" diameter mtg. hole. Series C-4, open type, 2½" round flange, 2" dia. mtg. hole. All are for 115v, 60 cyc. operation except * which is 230 volts, 1 lb. †Max # of min.

Stock No.	Type	Max. Hrs.	Calib.	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
55F670	C-2	10,000	1/10 hr.	20.00	19.00	18.00	17.00	16.00	15.00
55F671	C-2*	10,000	1/10 hr.	21.50	20.43	19.35	18.28	17.20	16.13
55F680	C-5	10,000	1/10 hr.	42.50	40.38	38.25	36.13	34.00	31.88
24FX1816	C-2-A	100,000	1 hr.	20.00	19.00	18.00	17.00	16.00	15.00
24FX1817	C-4	10,000	1/10 hr.	16.50	15.68	14.85	14.03	13.20	12.38
24FX1818	C-4-A	100,000	1 hr.	16.50	15.68	14.85	14.03	13.20	12.38
24FX1841	C-2-F	100,000†	1 min.	20.00	19.00	18.00	17.00	16.00	15.00

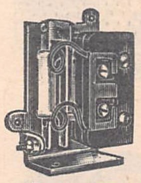

Type C-7

INDUSTRIAL TIMER

115 VOLT AC THERMAL TIME DELAY RELAY

Series TH. Adjustable, thermally actuated snap action switching device. Totally enclosed snap action contacts are rated at 10 amps at 115, 230 volts, 60, 50, or 30 cycles. Single pole, double throw arrangement. Single screw will provide time cycle adjustment for individual units. Two bi-metal strips identical in composition are mounted so that, during ambient temperature changes the natural bending of each strip works against the other and neutralizes their movement against the load contacts. Heater is a rugged totally enclosed cast ceramic unit. This series is available with 15 amp. load contacts.

Stk. No.	Type	Time Cycle	1-3	4-5	6-11	12-24	25-49	50-99
24FX1830	TH- 15S	15 Seconds	8.50	8.08	7.65	7.23	6.80	6.38
24FX1831	TH- 30S	30 Seconds	8.50	8.08	7.65	7.23	6.80	6.38
24FX1832	TH- 60S	60 Seconds	8.50	8.08	7.65	7.23	6.80	6.38
24FX1834	TH-120S	120 Seconds	8.50	8.08	7.65	7.23	6.80	6.38


Series TH

INDUSTRIAL TIMER PERCENTAGE TIMERS

Series PC. Calibrated in percentage of a given time delay. Designed to close an electrical circuit within any desired percentage of rated time cycle for timer. Knob for setting of "on" time from 3% to 97%, with 100% position for continuous circuit operation. Cam operated snap switch rated at 15 amps. 3⅞ dia. x 4$\frac{5}{16}$ deep, 115v., 60 cycles AC. 2 lbs.

Stock No.	Type	Time Cycle	1-3	4-5	6-11	12-24	25-49	50-99
24F243	PC-15S	15 seconds	31.00	29.45	27.90	26.35	24.80	23.25
24F244	PC-30S	30 seconds						
24F245	PC-60S	60 seconds						

Series PC

SERIES TDAB

Unit is especially designed for surface, or for behind the panel mounting. Terminal strip is located at front for electrical connections. Switch is SPDT and is rated at 10 amps. Dimensions: 7⅛"x5⅛"x4¼" deep. Shipping weight: 4 lbs.

Stock No.	Type No.	Time Cycle	Calibration	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
24FX1810	TDAB-6S	6 seconds	1/10 second	43.00	40.85	38.70	36.55	34.40	32.25
24FX1811	TDAB-60S	60 Seconds		43.00	40.85	38.70	36.55	34.40	32.85
24FX1812	TDAB-15M	15 minutes	15 seconds	43.00	40.85	38.70	36.55	34.40	32.25
24F1871	Type K. Steel Housing for TDAB			6.50	6.18	5.85	5.53	5.20	4.88

Series TDAB

SERIES 90 DELAY TIMERS

The Series 90 is designed for applications requiring little or no field adjustments. No calibrated dial is supplied with the Series 90. Changes in time cycle are made by loosening the time set cam screw and offsetting one cam arm. Load contacts are SPDT, 10 amps. rated at 115/60. Dimensions are: 2⅝x2¼x2¼. Shipping weight is 1 lb.

Stock No.	Model No.	Max. Setting	Min. Setting	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
24F1843	90-6S	6 sec.	½ sec.	17.00	16.15	15.30	14.45	13.60	12.75
24F1844	90-15S	15 sec.	1½ sec.						
24F1845	90-30S	30 sec.	3 sec.						
24F1846	90-60S	60 sec.	6 sec.						
24F1847	90-90S	90 sec.	9 sec.						

Series 90

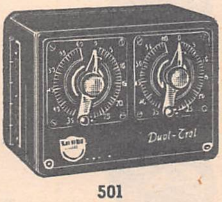
SERIES "DUAL-TROL"
RECYCLING TIMERS

Series Dual-Trol is a compact recycling timer that provides two adjustable On-Off sequencing switch closures. Consists of two TM modules, operating in sequence. Modules can be combined to provide any combination of the time cycles found in the time cycle chart. Time Setting adjustment is accomplished by moving the selectors to the time cycles required. Large easy to read concentric scales. Load rating SPST isolated—10 amps, non-inductive rating at 115 V 60 cps. Operating equipment, 115, 60 cps. Terminal strip inside the housing, two ½" knockouts. Dim.: 4½x5$\frac{9}{16}$x7½".

Recycling Modules To Be Used Only For Housing Below. Select Two.

Stock No.	Model No.	Maximum Time Cycles	Minimum Time Cycles	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
24F1860	TM-6S	6 Seconds	$\frac{1}{10}$ Second	27.50	26.13	24.75	23.38	22.00	20.63
24F1861	TM-15S	15 Seconds	¼ Second						
24F1862	TM-30S	30 Seconds	½ Second						
24F1863	TM-60S	60 Seconds	1 Second						
24F1864	TM-3M	3 Minutes	3 Seconds						
24F1865	TM-5M	5 Minutes	5 Seconds						
24F1866	TM-15M	15 Minutes	15 Seconds						
24F1867	TM-30M	30 Minutes	30 Seconds						
24F1868	TM-60M	60 Minutes	1 Minute						
24F1869	TM-3H	3 Hours	3 Minutes						

Stk. No.	Description	1-3	4-5	6-11	12-24	25-49	50-99
24F1870	Control housing only	22.50	21.38	20.25	19.13	18.00	16.88

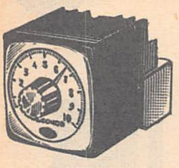


501

NEWARK CARRIES A COMPLETE STOCK OF ALL TIMERS AND METERS. VISIT, WRITE, OR TELEPHONE US FOR THE FASTEST SERVICE ON ALL YOUR ELECTRONIC NEEDS. IMMEDIATE, OFF-THE-SHELF DELIVERY ON OVER 70,000 ITEMS.

Cramer

CRAMER TIMERS AND CONTROLS



940

TYPE 940—ELECTRONIC TIMER

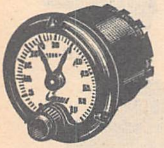
Solid state, fully transistorized, no warm up. Operates directly from 115V AC, 60 cy power line for use with flashers, X-ray equipment, welding equipment, etc. Time ranges—0.02 to 1.0 sec.; 0.20 to 10 sec.; 2.0 to 100 sec. Repeat Accuracy: ±1% of full scale. Reset time of 30 milliseconds. Timing circuit life of over 40 million cycles—10 million for the load relay. Plug in load relay can be easily replaced. Complete with eight external load connections for SPST or SPDT hook up of two independent circuits and remote control operation. Load contact ratings—25 amp resistive, 120 or 240 VAC; 25 amp. inductive, 120 VAC (75% pf.); 1 H.P. 120 VAC (96 amp. locked rotor); 2 H.P. 240 VAC (72 amp. locked rotor); 25 amp. resistive, 24 VDC. Panel mount will operate in any position. Power Consumption: 3 V.A. Shpg. wt., 2½ lbs.

940A—Interval Timer—Sustained contact starting: load switches transfer immediately and return to original position at end of selected interval. Control contact must be opened to allow unit to reset for second operation.

Momentary contact starting: load switches transfer immediately and return to original position at end of selected interval. Timer resets automatically.

940B—Time Delay Relay—Sustained contact starting: load switches do not transfer until end of timing. Switches remain transferred until control contact is opened.

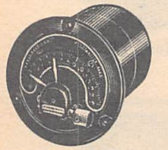
Stk. No.	Type	Range	1-4	5-9	10-24	25-49	50-99	100-249
55F321	940A	.02 to 1.0	69.50	67.42	65.33	63.25	61.16	59.08
55F322	940A	.20 to 10.0						
55F323	940A	2.00 to 100						
55F324	940B	.02 to 1.0						
55F325	940B	.20 to 10.0						
55F326	940B	2.00 to 100						



Type 241E

Type 241E Automatic Reset Interval Timer. Start button integral with setting knob turns on load and starts timer. Upon completion of timing, load is shut off and timer automatically resets. Ideal for controlling mixers, ovens, pumps and other types of batch operations. S.P.D.T. contacts rated 15 amps at 115 V., 60 Cy. Repeat accuracy ±.25% except 15 sec. time range ±.5%. Case dia. 3¹⁄₁₆", depth 3³⁄₃₂". 3 hole mounting on 1.687" radius. Shipping weight 3 lbs. Timers marked * 220 V., 60 Cy—WD1150.

Stock No.	Time Range	Calibration	1-4	5-9	10-24	25-49	50-99	100-249
55F350	15 seconds	0.25 second	25.50	24.73	23.97	23.20	22.44	21.67
55F351	60 seconds	1 second						
55F352	15 minutes	15 seconds						
55F378	30 minutes	0.5 minute						
55F353	60 minutes	1 minute						
55F354	12 hours	15 minutes						
55F380*	15 minutes	15 seconds	26.50	25.73	24.97	24.20	23.44	22.67

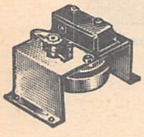


Type 310E

Time Delay Relay. Use to introduce an accurate time delay between the closing of a maintained or momentary control switch and the subsequent actuation of the timer load switch. Removal of power resets timer.

Type 310E. Use with maintained control switch. Has progress and setting indicators. S.P.D.T. contacts rated 10 amps at 115 V., 60 Cy. Overall accuracy ±2%. Repeat accuracy ±.5%. Case dia. 3¹⁄₁₆", depth 3³⁄₃₂". 3 hole mounting on 1.687" radius. Shipping weight 3 lbs.

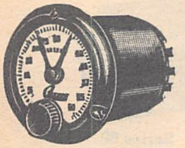
55F385	15 seconds	0.25 seconds	28.50	27.64	26.79	25.93	25.08	24.22
55F386	60 seconds	1.00 seconds						
55F387	120 seconds	2.00 seconds						



Type 330

Type 330. Use with maintained control switch. Semi-adjustable. S.P.D.T. contacts rated 10 amps at 115 V., 60 Cy. Repeat accuracy ±.75% of range. Size: H.W.D.—2.5"x2.125"x3.656". Shipping weight, 2 lbs.

55F342	20 seconds	....	18.00	17.46	16.92	16.38	15.84	15.30
55F343	40 seconds	....						
55F344	80 seconds	....						



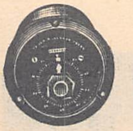
Type 412E

TYPE 412E TIME DELAY RELAY. Provides adjustable time delay with instantaneous automatic reset. Use it to initiate and control exact time delay between operation of control circuit and subsequent opening or closing of load switch. Operates from momentary or sustained source, and has 2 SPDT open blade contacts rated at 15 amps. Repeat accuracy is ±.25% except 15 sec. range is ±.5%. Shpg. wt., 4 lbs. Timers 115 V except * 220 V 60 cy.—WD1123.

55F355	15 seconds	0.25 second	44.00	42.68	41.36	40.04	38.72	37.40
55F356	60 seconds	1 second						
55F381	120 seconds	2 seconds						
55F383	5 minutes	5 seconds						
55F357	15 minutes	15 seconds						
55F358	60 minutes	1 minute						
55F359	12 hours	15 minutes						
55F382*	120 seconds	2 seconds	45.00	43.68	42.36	41.04	39.72	38.40

Type 471. Use with maintained control switch. Has clutch and motor switch for long life. Features calibrated setting dial. Contacts rated 10 amps at 115 V., 60 Cy. Size: H.W.D.—2⁵⁵⁄₆₄"x2¹¹⁄₁₆"x3²¹⁄₃₂". 3 lbs.

55F345	15 seconds	0.5 second	24.50	23.77	23.03	22.30	21.56	20.83
55F347	15 minutes	30 seconds						



Type 610E

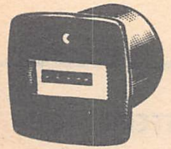
Type 610E Percentage Timer. Establishes or interrupts, a heavy duty S.P.D.T. switch for an adjustable percentage of a fixed time range. Use to control heating elements, blowers and other intermittent operations. Calibrated from 4% to 96% of time range. Accuracy ±1% of time range. Case dia. 3¹⁄₁₆", depth 3³⁄₃₂".

55F371	15 seconds	0.15 second	28.00	27.16	26.32	25.48	24.64	23.80
55F372	60 seconds	0.6 second						
55F374	60 minutes	36.0 seconds						

Type 632

Type 632. Running Time Meter. Use to record operating or down time of equipment. Available with either round (632E) or semi-square (632S) face. 115 V., 60 Cy. Case dia. 2.546", depth 2⅝". Shpg. wt., 3 lbs.

632 Round	632 Square	Range	Counts	1-4	5-9	10-24	25-49	50-99	100-249
55F333	55F330	9999.9 min.	1/10 min.	17.50	16.97	16.45	15.92	15.40	14.87
55F334	55F331	9999.9 hr.	1/10 hr.						
....	55F332	99999 hr.	1 hr.						



Type 633

Type 633. Resettable Running Time Meter. Available with either round (633E) or semi-square (633S) face with reset wheel on front of unit. 115 V., 60 Cy. Case dia. 2.546", depth 2⅝". Shpg. wt., 3 lbs.

633 Round	633 Square	Range	Counts	1-4	5-9	10-24	25-49	50-99	100-249
55F336	55F339	9999.9 sec.	1/10 sec.	22.50	21.83	21.15	20.48	19.80	19.13
55F337	55F340	9999.9 min.	1/10 min.						
55F338	55F341	99999 hrs.	1 hr.						

Type 691

TYPE 691. TOTALIZER. For laboratory testing. Electrically operated stop-clock used wherever precise time measurements are required. Features instantaneous electrical reset. Accuracy within .01 second. For local or remote electrical reset. Shipping weight, 4 lbs.

Stock No.	Time Range	Calibration	1-4	5-9	10-24	25-49	50-99	100-249
55F369	60 seconds	.01 sec.—1 sec.	75.00	72.75	70.50	68.25	66.00	63.75

TIMERS, METERS AND SWITCHES

INTERMATIC TIMERS AND METERS

PORTABLE TIME-ALL

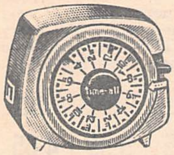


Fig. A. Type A221-4.

Fig. A. Type A221-4 Standard. Controls lights . . . defrosts refrigerator . . . converts any radio to a clock-radio! Ideal for making recordings from radio or TV while you are away from home. 24-hour movement turns on any device up to 875 watts for 1-23 hours. Also has manual control for continuous "on" or "off", plus automatic reset if desired. Dove grey plastic case, 5x4x2½''. 125v, 60 cycle AC. Shpg. wt., 2 lbs.
24F966. 1 to 5.. **7.29**
6 or more, each.. 6.57

Type A211-4 Deluxe. Similar to above, but handles 1875 watts.
24F979. 1 to 5.. 7.97
6 or more, each.. 7.17

TIME MINDER

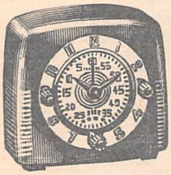


Fig. B. Type A301-4.

Fig. B. Type A301-4. Plug it in and set for 1 to 60 minutes. At end of interval, buzzer sounds. Desert sand case, 4¾x4½x2¼''. 125v, 60 cycle AC. 2 lbs.
24F967. 1 to 5.. **6.57**
6 or more, each.. 5.91

CLOCK TIMER

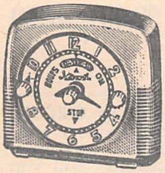
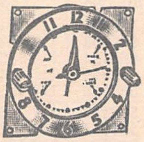


Fig. C. Type A401-4.

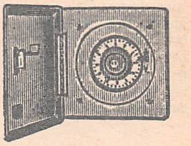
Fig. C. Type A401-4. Super deluxe timepiece that turns lights and appliances on for periods of 15 minutes to 5½ hours . . . then turns them off again automatically. Handles up to 1875 watts (15 amps). Desert sand case, 4¾x4½x2¼''. Operates on 125v, 60 cycle AC. Shipping wt. 2 lbs.
24F968. 1 to 5.. **8.77**
6 or more, each.. 7.89

RADIO CLOCK TIMER



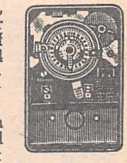
This new INTERMATIC unmounted radio clock timer is an extremely practical device. Applicable to any timing job. Front switch setting. Front time and automatic setting. Radio can be turned on automatically, turned on or off manually. Two front setting shafts with knobs projecting through bezel. Left hand knob controls switch position; can be set at either "automatic", "on", or "off". Right hand knob is for setting time of day and time set hand. Installation is straight forward, and requires only a 3 9/16" diameter mounting hole, and four 5/32" mounting holes for the studs. Will handle up to 1875 watts, 15 amperes at 125 volts. For 60 cycle operation only. Complete with instructions. Shipping weight, 1 pound.
24F976. Model RC 6021-2. 1 to 5.. **5.20**
6 or more, each.. 4.80

LAMP LYTER



Lamp Lyter is an automatic light switch that opens a new era of modern living. Finally, at low cost, you can have automatic lighting in your home, office, or plant. It combines a timer and manual switch in one compact unit, it can turn lights on or off automatically—in any room, on the porch, in the yard, or in the garage at any pre-set time. Lamp Lyter can be used to control any appliance for you such as, lights, coffee maker, fans, radios, TV's, etc. Unit mounts flush into wall or instrument panel. Hinged door, painted desert sand 6½x6½'' held shut by magnet. Manual slide switch on outside of door. Junction box 5x5x2 13/16'' deep. Timing range: "on" time 30 minutes to 23 hours. 1650 watts, 15 amps, 125 volts, 60 cycle AC. Shpg. Wt. 4 lbs.
24F975. Type T-1101. NET.. **14.27**

GENERAL PURPOSE TIMERS

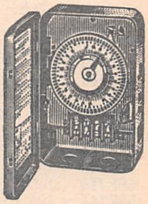


Type T101. Rugged time switch for stores, offices, homes, and industry. Perfect for neon signs, air conditioners, fans, etc. Turns device on and off for any period over 1 hour . . . once every 24 hours. May be set up for more operations with additional trapper sets below. Can be manually operated without upsetting automatic sequence. SPST switch has new alloy-T contacts, U-beam blades, high-power switching mechanism, and tungsten, rated at 40 amps. to carry incandescent lighting loads. 7¾x5x3''. For 125 v, 60-cycle AC. 3 lbs.
24F978. 1 to 5, each.. **7.77**
6 or more, each.. 7.17

Type T103. Same as above, but it has DPST contacts.
24F977. 1 to 5 each.. 9.07
6 or more, each.. 8.37

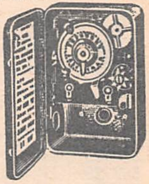
24F982. Set of extra trippers (for additional settings).
1 to 5, each.. .26
6 or more sets, each.. .24

PROGRAM TIME SWITCH



Type T965. Provides up to 96 on and off operations in 15-minute steps every 24 hours! Ideal for music systems, chicken feeders, fans, and other devices requiring frequent control. Permanently attached trippers are spotted every 15 minutes around the dial . . . slide easily, and can't get lost. Timer is driven by slow-speed industrial-type motor coupled to dial through only four gears. 20-amp. contacts can be set up for: SPST normally open or closed, or SPDT. Knockout box, 7¾x5x3''. For 125v, 60 cycle AC. Shpg. wt., 4 lbs.
24F973. 1-5.. **23.73**
6 or more. each.. 21.90

7-DAY OPERATION "SKIPPER"



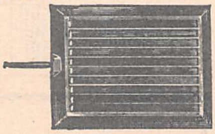
Model T173 & T175. The Intermatic Skipper provides a program of operations for most commercial or industrial needs. For use where it is desired to skip operations on weekends or other selected days. Has 24-hour time dial and 7-day skipper dial. Small skipping screws are merely inserted into the respective day-holes for skipping operation. Contacts are rated up to 40 amps. per pole. Switch action: Model T173—DPST, Model T175—SPDT. Power requirements: 125 volt AC 60 cps. Drawn steel case, gray finished. 7¾"x5"x3". 3 lbs.

Model T173. With 3 skipping screws.
24F1890. NET.. 12.32
6 or more.. 11.37

Model T175. With 3 skipping screws.
24F1891. NET.. 12.32
6 or more.. 11.37

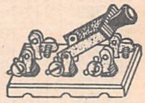
SWITCHES FOR SPECIAL APPLICATIONS

RECORA FOOT SWITCHES



Electrodes completely embedded in flexible brown plastic. No exposed parts or openings. Operates even under water. Molded waterproof construction makes possible efficient operation where a foot switch must resist acids, solvents, alkalis and most common chemicals. 6x8x⅜".
SPST circuit. 8A at 115VAC. Shpg. wt. 2¼ lbs.
24F180. Type NF-2. w/6' cord. NET.. **5.49**
24F181. Type PSN-2 w/6' cord. w/series plug atchd. NET. 6.27

MIDGET PORCELAIN KNIFE SWITCHES



Midget knife switches. All are rated at 25 amps, 125 volts. Have white porcelain bases, ⅜'' thick.

Stk. No.	Poles	Size	1-9	10-99	100-up
23F755	SPST	1 x1¾''	.25	.22	.19
23F756	SPDT	1 x2⅝''	.33	.29	.25
23F757	DPST	1⅝x1¾''	.46	.42	.37
23F758	DPDT	1½x2⅝''	.57	.53	.50

INDUSTRIAL BUYERS, SPECIFYING ENGINEERS, AND OTHER USERS OF ELECTRONIC EQUIPMENT: YOU CAN DEPEND ON NEWARK FOR LOWEST PRICES, FASTEST SERVICE AND GUARANTEED DELIVERY FROM AN INVENTORY OF OVER 70,000 ITEMS. MAKE NEWARK YOUR ONE POINT SOURCE.

WOOD ELECTRIC CIRCUIT BREAKERS

WOOD ELECTRIC CIRCUIT BREAKERS

Wood Electric circuit breakers have been precision calibrated and inspected by X-ray to insure uniform and reliable performance. Operate at full capacity under extreme conditions of shock, vibration, and humidity. On overload, breakers will open and remain open until manually reset. If dangerous overload remains, contacts cannot be held closed even manually. All breakers handle in excess of 25G's of shock and are highly resistant to corrosion, sand, and dust. Circuit breakers have a one-year guarantee.

MILITARY TYPE TOGGLE BREAKER

Meets MIL-C-5809 and drawing MS25337

Type 102. Replaces Type 1800. Heavy-duty toggle breaker designed for ground equipment and industrial electronic systems. Thermal-type with a high rupture capacity for circuits adjusted up to 6000 amps at 30 volts DC and 3500 amps on a 120/208 volt AC system, 400 cycles. Size: 2x¾x2". Shpg. wt., 3 oz.

Stk. No.	Type	Amp.	1-9	10-99	100-499	500-999
56F700	102-101-101	5	7.15	5.90	4.95	4.40
56F701	102-102-101	7.5				
56F702	102-103-101	10				
56F703	102-104-101	15				
56F704	102-105-101	20				
56F705	102-106-101	25				
56F738	102-107-101	30				
56F706	102-108-101	35				
56F739	102-109-101	40				
56F707	102-110-101	50				

MILITARY TYPE MINIATURE BREAKER

Meets MIL-C-5809C and drawing MS25244

Type 105. Replaces Type 2100. Trip free. Interrupts circuits adjusted for 3500 amps, 120 volts AC, 400 cycles and 6000 amps, 30 volts DC. Will carry indefinitely 100% and trip within 138%. Tripping time at 200% load approximately 25 seconds. Size: 1¾x ¾x1". Wt., 1.5 oz.

Stk. No.	Type	Amp.	1-9	10-99	100-499	500-999
56F708	105-101-101	5	6.80	5.60	4.45	4.25
56F709	105-102-101	7.5				
56F710	105-103-101	10				
56F711	105-104-101	15				
56F712	105-105-101	20				
56F713	105-106-101	25				
56F740	105-107-101	30				
56F714	105-108-101	35				
56F741	105-109-101	40				
56F715	105-110-101	50				

MINIATURE TOGGLE BREAKER

Type 112. Replaces Type CB3100B. Ideal as a combination switch and toggle circuit breaker. Trip free and will interrupt up to 5000% of rated load. Will carry 100% indefinitely and trip within 125%. Tripping time at 200% load is approximately 8 seconds. Size: 2x¾x1¼". Wt., 2 oz.

Stk. No.	Type	Amps.	1-9	10-99	100-499	500-999
56F725	112-101-101	5	3.55	2.95	2.50	2.20
56F726	112-102-101	7.5				
56F727	112-103-101	10				
56F728	112-104-101	15				
56F729	112-105-101	20				
56F730	112-106-101	25				
56F731	112-107-101	30				
56F732	112-108-101	35				
56F742	112-109-101	40				
56F733	112-110-101	50				

PUSH-PULL CIRCUIT BREAKER

Type 109. Replaces Type CB2300A. Peak protection for low current equipment. Interrupted circuits adjusted for 5000 amps at 120 v., 60 cycles. Two screw terminals. Depth behind panel .560. Size: 2x¾x1¼". Shpg. wt., 2 oz.

Stk. No.	Type	Amps.	1-9	10-99	100-499	500-999
56F716	109-101-101	5	3.30	2.75	2.30	2.05
56F717	109-102-101	7.5				
56F718	109-103-101	10				
56F719	109-104-101	15				
56F720	109-105-101	20				
56F721	109-106-101	25				
56F722	109-107-101	30				
56F723	109-108-101	35				
56F724	109-110-101	50				

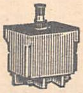
LOW AMPERAGE BREAKER

Type 111. Replaces Type CB3000. Excellent protection for low current electronic equipment. Trip free and will interrupt up to 5000% of rated load. Will carry 100% indefinitely and trip within 125%. Tripping time at 200% is approximately 8 seconds. Size: 2x¾x1¼". Wt., 2 oz.

Stk. No.	Type	Amps	1-9	10-99	100-499	500-999
56F734	111-101-101	1	7.75	6.25	5.35	4.65
56F735	111-102-101	2				
56F736	111-103-101	3				
56F737	111-104-101	4				

THREE POLE BREAKER

Meets MIL-C-5809 and drawing MS21984



Type 116. Replaces Type CB3900. An overload in any phase will simultaneously trip all three independent and internally connected phases. Trip free and will interrupt an adjusted circuit up to 2500 amps at a maximum 120 amp, AC voltage. Will carry 100% indefinitely and trip within 138%. Size: 2¼x2¼x2¼". Wt., 8 oz.

Stk. No.	Type	Amps	1-9	10-99	100-up
56F743	116-101-101	5	56.00	50.00	47.50
56F744	116-102-101	7.5			
56F745	116-103-101	10			
56F746	116-104-101	15			
56F747	116-105-101	20			
56F748	116-106-101	25			
56F749	116-107-101	30			
56F750	116-108-101	35			
56F751	116-109-101	50			

MAGNETIC BREAKER WITH AUXILIARY CIRCUIT

Type 117. A compact unit with an auxiliary circuit separate from the main circuit. Trip free with instantaneous tripping action for DC circuits. Will carry 100% load indefinitely and trip instantaneously within 125%. Interrupting capacity up to 200 amps. Size: 1x2x2". Wt., 4 oz.

Stk. No.	Type	Amps	1-9	10-99	100-499	500-999
56F752	117-101-101	1	10.80	8.90	7.50	6.65
56F753	117-102-101	2				
56F754	117-103-101	3				
56F755	117-104-101	4				
56F756	117-105-101	5				
56F757	117-106-101	7				
56F758	117-107-101	10				
56F759	117-108-101	15				
56F760	117-109-101	20				
56F761	117-110-101	25				

HEAVY DUTY MAGNETIC BREAKER

Type 122. Designed for the protection of electronic equipment which requires fast-acting protection. Interrupting capacity up to 2000 amps, 60 cycles, 250 volts. Will carry 100% indefinitely and trip within 125%. Tripping time at 200% overload is within 8 seconds. Size: 2½x¾x2½". Wt., 4½ oz.

Stk. No.	Type	Amps	1-9	10-99	100-499	500-999
56F762	122-102-101	1	8.10	6.65	5.60	5.00
56F763	122-104-101	2				
56F764	122-106-101	3				
56F765	122-108-101	4				
56F766	122-110-101	5				
56F767	122-112-101	7				
56F768	122-115-101	10				
56F769	122-120-101	15				
56F770	122-125-101	20				
56F771	122-130-101	25				
56F772	122-131-101	30				
56F773	122-132-101	35				
56F774	122-133-101	40				
56F775	122-135-101	50				

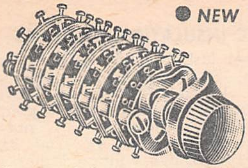
NEWARK STOCKS THE WORLD'S MOST COMPLETE,

DIVERSIFIED INVENTORY OF

INDUSTRIAL ELECTRONICS EQUIPMENT

ROTARY AND LEVER SWITCHES

● *NEW* SUB-MINIATURE ROTARY SWITCHES INCLUDING SRO5 STYLE TO MIL-S-3786A WITH SPECIFIC RELIABILITY RATINGS



Designed for use in low current applications where savings in space or weight are important and performance requirements are high. Deck wafers are epoxy-glass fabric laminations per MIL-P-8177C GEB. Deck rotor meets MIL-I-10A. Wafer contacts are 90% silver alloy, gold-plate, double wiping for low contact resistance, and self cleaning. Frame, detent mechanism, and shaft are stainless steel. Initial contact resistance: .005 ohms max. Dielectric strength 1000 volts RMS. Insulation resistance exceeds 100,000 megohms. Current carrying capacity: 5 amp. at standard ambient conditions. Current breaking capacity: 750MA at 30 DCV; 300 MA at 120 DCV; 1 amp at 115 ACV. non-inductive. All V and X types include A7505 knob. Positive 30° indexing. (Also available with 60° or 90° indexing). Nominal 1" diameter. Patented Series 7000 provides a full 12 live switching contacts per deck. Series 5000 has the same wafer design but provides nearly twice the switching capability per deck, with up to 12 contacts on the front and up to 12 contacts on the rear of the same dual-duty deck. SRO5 types designed for top reliability ratings of MIL-S-3786A: C indicates highest temperature-life rating, 25 000 rotational cycles —65°C to +125°C; 2 for vibration grade 2, 10 to 500 cps; H for shock type high impact. M medium-impact shock type also available on special order.

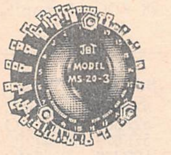
V and X Types | **Military SRO5 Type MIL-S-3786A**

Stock No.	Type	NET EACH	Decks	Poles per Deck	Pos. per Pole	Short or Non-Short	Shaft Dia.	Stock No.	MIL Designation SRO5N30C2HP	NET EACH
26F745	V71121N	**4.90**	ONE	1	12	N-S	¼"	**26F770**	V71121N-SRO5	**5.25**
26F746	V71121S	**4.90**	DECK	1	12	S	¼"	**26F771**	V71121S-SRO5	**5.25**
26F747	X71121N	**4.70**		1	12	N-S	⅛"	....	....	....
26F748	X71121S	**4.70**		1	12	S	⅛"	....	....	....
26F749	V72061N	**5.00**		2	6	N-S	¼"	**26F772**	V72061N-SRO5	**5.35**
26F750	V74031N	**5.20**		4	3	N-S	¼"	**26F773**	V74031N-SRO5	**5.50**
26F751	V52111N	**5.25**	ONE	2	11	N-S	¼"	**26F774**	V52111N-SRO5	**5.60**
26F752	V52111S	**5.25**	DUAL	2	11	S	¼"	**26F775**	V52111S-SRO5	**5.60**
26F753	V54051N	**5.35**	DUTY	4	5	N-S	¼"	**26F776**	V54051N-SRO5	**5.70**
26F754	V54051S	**5.35**	DECK	4	5	S	¼"	**26F777**	V54051S-SRO5	**5.70**
26F755	V58021N	**5.35**		8	2	N-S	¼"	**26F778**	V58021N-SRO5	**5.90**
26F756	V71122N	**6.75**	TWO	1	12	N-S	¼"	**26F779**	V71122N-SRO5	**7.20**
26F757	V71122S	**6.75**	DECKS	1	12	S	¼"	**26F780**	V71122S-SRO5	**7.20**
26F758	X71122N	**6.45**		1	12	N-S	⅛"	....	....	....
26F759	V72062N	**6.95**		2	6	N-S	¼"	**26F781**	V72062N-SRO5	**7.40**
26F760	V74032N	**7.40**		4	3	N-S	¼"	**26F782**	V74032N-SRO5	**7.90**
26F761	V52112N	**8.10**	TWO	2	11	N-S	¼"	**26F783**	V52112N-SRO5	**8.65**
26F762	X52112N	**7.75**	DUAL	2	11	N-S	⅛"	....	....	....
26F763	V54052N	**8.30**	DUTY	4	5	N-S	¼"	**26F784**	V54052N-SRO5	**8.85**
26F764	V71123N	**8.85**	THREE	1	12	N-S	¼"	**26F785**	V71123N-SRO5	**9.45**
26F765	V72063N	**9.15**	DECKS	2	6	N-S	¼"	**26F786**	V72063N-SRO5	**9.70**
26F766	V74033N	**9.85**		4	3	N-S	¼"	**26F787**	V74033N-SRO5	**10.45**
26F767	V71124N	**11.95**	FOUR	1	12	N-S	¼"	**26F788**	V71124N-SRO5	**12.70**
26F768	X71124N	**11.40**	DECKS	1	12	N-S	⅛"	....	....	....
26F769	V71126N	**16.05**	SIX	1	12	N-S	¼"	**26F789**	V71126N-SRO5	**17.10**

SUB-MINIATURE LEVER SWITCHES

Stock No.	Type	NET EACH	Decks	Poles per Deck	Pos. per Pole	Short or Non-Short	Shaft Dia.	NO MIL Designation
26F791	VL74031N	**5.15**	DECK	4	3	N-S	¼"	Not covered by specification
26F792	VL72031N	**5.05**	....	2	3	N-S	¼"	Not covered by specification
26F793	VL58021N	**5.35**	....	8	2	N-S	¼"	Not covered by specification

ENCLOSED MOLDED ROTARY SWITCHES



Switches are interchangeable electrically and mechanically with laminated types, but offer enclosed construction. Heavy silver plated contacts are rated at 1 amp, dielectric —125 V. VAC. inductive. Double-grip collector arms reduce contact resistance to an average of .007 ohm. Type MS-14 has a diameter of $2\frac{3}{32}$", while type MS-20 is 2⅝". All are supplied complete with bar knob. Type MS-14 switches require 25° 43', and type MS-20 takes 18° plates. 5 oz. **All non-shorting except (**) shorting.**

MS-14 TYPE

Stk. No.	Type	Poles	Decks	Positions	NET
22F931	MS-14-1S**	1	1	14	**2.50**
22F932	MS-14-2S**	2	1	14	**3.20**
22F933	MS-14-1	1	1	14	**2.45**
22F934	MS-14-2	2	2	14	**3.10**
22F935	MS-14-3	3	3	14	**3.75**
22F936	MS-14-4	4	4	14	**4.85**
22F937	MS-14-6	6	6	14	**7.05**
		MS-20 TYPE			
22F938	MS-20-1S**	1	1	20	**3.15**
22F939	MS-20-2S**	2	2	20	**4.00**
22F940	MS-20-1	1	1	20	**3.10**
22F941	MS-20-2	2	2	20	**3.90**
22F942	MS-20-3	3	3	20	**5.00**
22F943	MS-20-4	4	4	20	**6.20**
22F944	MS-20-1-6DT	6	1	2*	**3.90**
22F945	MS-20-6	6	6	20	**8.60**
22F946	MS-20-2-6DT	12	2	2*	**5.50**

***NOTE: 2-position fixed stop, with no "off" position.**

ADJUSTABLE STOP MOLDED SWITCHES

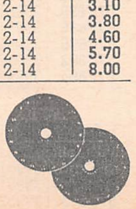
Like molded switches above, except have adjustable stop to permit use of as many positions as desired. Enclosed adjustable stop mechanism increases overall depth $\frac{5}{32}$" behind panel. Angular indexing is 25° 43'. **(**) Shorting Type.** Shpg. wt., 4 oz.

MAS-14 TYPE

No.	Type	Poles	Decks	Positions	NET
22F947	MAS-14-1S**	1	1	2-14	**3.20**
22F948	MAS-14-2S**	2	2	2-14	**3.95**
22F949	MAS-14-1	1	1	2-14	**3.10**
22F950	MAS-14-2	2	2	2-14	**3.80**
22F951	MAS-14-3	3	3	2-14	**4.60**
22F952	MAS-14-4	4	4	2-14	**5.70**
22F953	MAS-14-6	6	6	2-14	**8.00**

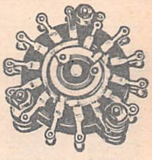
ETCHED DIAL PLATES

For all rotary switches on this page. Dull black. 2¾" diameter. Shpg. wt., 2 oz.



No.	Type	Calibration	Index	NET
22F954	EP-13	Off thru 13	25°43'	**23c**
22F955	EP-14	1 thru 14	25°43'	
22F956	EP-19	Off thru 19	18°	
22F957	EP-20	1 thru 20	18°	

LAMINATED ROTARY SWITCHES



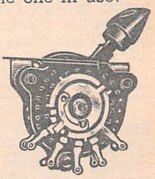
Has 14 contacts in a 2" circle, or 20 contacts in a $2\frac{23}{32}$" circle. 3-post deck suspension. Double-grip collector arms, with silver-to-silver contact, result in a contact resistance of .007 ohms. Contacts rated at 1 amp AC or DC dielectric—125 VAC, inductive load max. momentary capacity (not make and break) 5 amp.; max. voltage between contacts 1500 V. RMS. Continuous rotation type, SS-14, is supplied with adjustable stop and bar knob. Include one "off" position. Indexing is 25° 43' for SS-14 types, and 18° for SS-20 switches. With molded plastic bar knob. Average shpg. weight, 3 ounces.

SS-14 SHORTING TYPE

No.	Type	Poles	Decks	Positions	NET
22F900	SS-14-1S	1	1	2-14	**2.35**
22F902	SS-14-2S	2	2	2-14	**3.00**
22F903	SS-14-2CS	2*	2	2-14	**3.95**
22F904	SS-14-3S	3	3	2-14	**3.65**
		SS-14 NON-SHORTING TYPE			
22F905	SS-14-1	1	1	2-14	**2.30**
22F906	SS-14-2	2	2	2-14	**2.90**
22F907	SS-14-1A	2	1	2-5	**2.45**
22F908	SS-14-3	3	3	2-14	**3.50**
22F909	SS-14-4	4	4	2-14	**4.40**
22F910	SS-14-2A	4	2	2-5	**3.20**
22F911	SS-14-6	5	6	2-14	**6.30**

***Note:** All contacts shorted together except the one in use.

LEVER ACTION SWITCHES



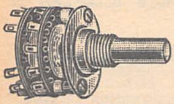
Same features as laminated rotary switches above, but with lever action. Switches are 1⅝" deep and should be mounted ¾" apart. Two-deck types have same spacing between decks as 300-ohm twin lead. Type MS-20-1L5A1 is special molded unit, recommended for sound systems. Shpg. wt., 4 oz. each.

SHORTING TYPE

No.	Type	Poles	Decks	Positions	NET
22F920	SS-14-1L3S	1	1	3	**1.05**
22F921	SS-14-1L3SR	1	1	3*	**1.20**
22F922	SS-14-1L4S	1	1	4†	**1.15**
		NON-SHORTING TYPE			
22F923	SS-14-1L3	1	1	3	**1.00**
22F924	SS-14-1L3R	1	1	3*	**1.15**
22F925	SS-14-1L4	1	1	4†	**1.10**
22F926	SS-14-1L4F	1	1	4	**1.10**
22F927	SS-14-1L3-2	2	2	3	**1.70**
22F928	SS-14-1L3A	2	1	3	**1.15**
22F929	SS-14-1L4F2	2	2	4	**1.90**
22F930	MS-20-1L5A1‡	2	1	5	**3.25**

*Note: Spring return.
†Note: Includes "off" position.
‡Note: Molded black case.

OAK ROTARY SWITCHES AND ASSEMBLIES



MINIATURE SILICONE SWITCHES

Series A. Dual ball, 30° indexing. Meet MIL-S-3786A, 200-hr. salt spray finishes. Frame dim. 1"Hx1 5/16"W; 1 3/16" over clips; ¼" dia. x 2⅜"L shaft break-off points @ ¾", 1⅛", 1⅞" from mtg. surf., Adj. stop, except 2-pos. fixed stop. Sect. spacing, 1st spacer 17/64", 2nd 5/32", 3rd 5/32" approx. 750V peak breakdown voltage 1 amp @ 28 VDC, .5 amp @ 115 VAC. Av. shpg. wt. 4 oz.

SHORTING—TYPE "A"

Stk. No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F600	399216A	1	1	2-12	5.40	4.50	4.05	3.85	3.60	3.24
57F602	399218A	2	2	2-12	6.90	5.75	5.18	4.92	4.60	4.14
57F604	399220A	3	3	2-12	8.70	7.25	6.53	6.20	5.80	5.22
57F606	399222A	1	2	2-6	5.40	4.50	4.05	3.85	3.60	3.24
57F608	399224A	2	4	2-6	6.90	5.75	5.18	4.92	4.60	4.14
57F610	399226A	3	6	2-6	8.70	7.25	6.53	6.20	5.80	5.22
57F612	399234A	1	4	2	5.40	4.50	4.05	3.85	3.60	3.24
57F614	399236A	2	8	2	6.90	5.75	5.18	4.92	4.60	4.14

NON-SHORTING TYPE "A"

57F601	399217A	1	1	2-12	5.40	4.50	4.05	3.85	3.60	3.24
57F603	399219A	2	2	2-12	6.90	5.75	5.18	4.92	4.60	4.14
57F605	399221A	3	3	2-12	8.70	7.25	6.53	6.20	5.80	5.22
57F607	399223A	1	2	2-6	5.40	4.50	4.05	3.85	3.60	3.24
57F609	399225A	2	4	2-6	6.90	5.75	5.18	4.92	4.60	4.14
57F611	399227A	3	6	2-6	8.70	7.25	6.53	6.20	5.80	5.22
57F613	399235A	1	4	2	5.40	4.50	4.05	3.85	3.60	3.24
57F615	399237A	2	8	2	6.90	5.75	5.18	4.92	4.60	4.14

MINIATURE PHENOLIC SWITCHES

Series F. Single ball, 30° indexing. Meet MIL-S-3786A, 50-Hr. salt spray finishes. Frame dim. 1 5/16" H. x 1¼" W; 1⅜" over clips; ¼" dia. x 2⅜" L., shaft break-off points @ ¾", 1⅛", 1⅞" from mtg. surf., adj. stop, except 2-pos. fixed stop. Sect. spacing, 1st spacer 5/16", 2nd, ⅜" approx. 1000V peak breakdown voltage 1 amp @ 28 VDC, .5 amp @ 115 VAC. Av. Shpg. wt. 3 oz.

SHORTING TYPE "F"

Stk. No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F616	399322F	1	1	2-11	2.64	2.20	1.98	1.88	1.76	1.58
57F618	399324F	2	2	2-11	3.18	2.65	2.39	2.27	2.12	1.91
57F620	399326F	1	2	2-5	2.64	2.20	1.98	1.88	1.76	1.58
57F622	399328F	2	4	2-5	3.18	2.65	2.39	2.27	2.12	1.91
57F624	399330F	1	3	2-3	2.64	2.20	1.98	1.88	1.76	1.58
57F626	399332F	2	6	2-3	3.18	2.65	2.39	2.27	2.12	1.91
57F628	399334F	1	4	2	2.64	2.20	1.98	1.88	1.76	1.58
57F630	399336F	2	8	2	3.18	2.65	2.39	2.27	2.12	1.91

NON-SHORTING TYPE "F"

57F617	399323F	1	1	2-11	2.64	2.20	1.98	1.88	1.76	1.58
57F619	399325F	2	2	2-11	3.18	2.65	2.39	2.27	2.12	1.91
57F621	399327F	1	2	2-5	2.64	2.20	1.98	1.88	1.76	1.58
57F623	399329F	2	4	2-5	3.18	2.65	2.39	2.27	2.12	1.91
57F625	399331F	1	3	2-3	2.64	2.20	1.98	1.88	1.76	1.58
57F627	399333F	2	6	2-3	3.18	2.65	2.39	2.27	2.12	1.91
57F629	399335F	1	4	2	2.64	2.20	1.98	1.88	1.76	1.58
57F631	399337F	2	8	2	3.18	2.65	2.39	2.27	2.12	1.91

STEATITE CERAMIC INSULATION SWITCHES

Series FC. Meet MIL-S-3786A, 50-Hr. salt spray finishes. Single ball, 30° indexing. Frame dim. 1 5/16" H. x 1¼" W. 1⅜" over clips; ¼" dia. x 2⅜" L., shaft break-off points @ ¾", 1⅛", 1⅞" from mtg. surf. Adj. stop except 2-pos. fixed stop. Sect spacing Ist spacer 5/16"; 2 nd ⅜" aprox. 1000V peak breakdown voltage 1 amp @ 28 VDC, .5 amp @ 115 VAC. Av. shpg. wt. 5 oz.

SHORTING TYPE "FC"

Stk. No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F632	399366FC	1	1	2-11	2.94	2.45	2.21	2.10	1.96	1.76
57F634	399368FC	2	2	2-11	4.17	3.48	3.13	2.97	2.78	2.50
57F636	399370FC	1	2	2-5	2.94	2.45	2.21	2.10	1.96	1.76
57F638	399372FC	2	4	2-5	4.17	3.48	3.13	2.97	2.78	2.50
57F640	399374FC	1	3	2-3	2.94	2.45	2.21	2.10	1.96	1.76
57F642	399376FC	2	6	2-3	4.17	3.48	3.13	2.97	2.78	2.50
57F644	399378FC	1	4	2	2.94	2.45	2.21	2.10	1.96	1.76
57F646	399380FC	2	8	2	4.17	3.48	3.13	2.97	2.78	2.50

NON-SHORTING TYPE "FC"

57F633	399367FC	1	1	2-11	2.94	2.45	2.21	2.10	1.96	1.76
57F635	399369FC	2	2	2-11	4.17	3.48	3.13	2.97	2.78	2.50
57F637	399371FC	1	2	2-5	2.94	2.45	2.21	2.10	1.96	1.76
57F639	399373FC	2	4	2-5	4.17	3.48	3.13	2.97	2.78	2.50
57F641	399375FC	1	3	2-3	2.94	2.45	2.21	2.10	1.96	1.76
57F643	399377FC	2	6	2-3	4.17	3.48	3.13	2.97	2.78	2.50
57F645	399379FC	1	4	2	2.94	2.45	2.21	2.10	1.96	1.76
57F647	399381FC	2	8	2	4.17	3.48	3.13	2.97	2.78	2.50

PHENOLIC INSULATION SWITCHES

Series K. Meet MIL-S-3786A. 50 H.P. Salt Spray finish. Single ball 30° indexing. Frame dim. 1 17/32"H.x1 13/32"W; 1 9/16" over clips; ¼" dia.x2⅜"L., shaft breakoff points @ ¾", 1⅞" trom mtg. surf., bushing ⅜"-32 thread, ⅜"L. nut & washer on all switches. Sect spacing, 1st spacer ⅜", 2nd, 3rd, 4th ½" ea. approx. 1800 V, peak breakdown voltage 1 amp @ 28 VDC, .5 amp @ 115 VAC. Av. shpg. wt. 4 oz.

SHORTING TYPE "K"

Stk. No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F648	399418K	1	1	2-12	1.86	1.55	1.40	1.33	1.24	1.12
57F650	399420K	2	2	2-12	2.67	2.28	2.05	1.95	1.78	1.60
57F652	399422K	3	3	2-12	3.36	2.80	2.52	2.39	2.24	2.02
57F654	399424K	4	4	2-12	3.96	3.30	2.97	2.82	2.64	2.38
57F656	399426K	1	2	2-6	1.86	1.55	1.40	1.33	1.24	1.12
57F658	399428K	2	4	2-6	2.67	2.28	2.05	1.95	1.78	1.60
57F660	399430K	3	6	2-6	3.36	2.80	2.52	2.39	2.24	2.02
57F662	399432K	1	6	2	1.86	1.55	1.40	1.33	1.24	1.12
57F664	399434K	2	12	2	2.67	2.28	2.05	1.95	1.78	1.60

NON-SHORTING TYPE "K"

57F649	399419K	1	1	2-12	1.86	1.55	1.40	1.33	1.24	1.12
57F651	399421K	2	2	2-12	2.67	2.28	2.05	1.95	1.78	1.60
57F653	399423K	3	3	2-12	3.36	2.80	2.52	2.39	2.24	2.02
57F655	399425K	4	4	2-12	3.96	3.30	2.97	2.82	2.64	2.38
57F657	399427K	1	2	2-6	1.86	1.55	1.40	1.33	1.24	1.12
57F659	399429K	2	4	2-6	2.67	2.28	2.05	1.95	1.78	1.60
57F661	399431K	3	6	2-6	3.36	2.80	2.52	2.39	2.24	2.02
57F663	399433K	1	6	2	1.86	1.55	1.40	1.33	1.24	1.12
57F665	399435K	2	12	2	2.67	2.28	2.05	1.95	1.78	1.60

STEATITE CERAMIC INSULATION SWITCHES

Series JC. Single ball, 30° indexing. Meet MIL-S-3786A, 50-Hr. salt spray finishes. Frame dim. 1 17/32" H. x 1⅜" W., 1½" over clips. ¼" dia. x 2⅜" L., shaft break-off points @ ¾", 1⅛", 1⅞" from mtg. surf., adj. stop except 2-pos. fixed stop. Sect. spacing, 1st spacer ⅜", 2nd 7/16", 3rd 15/32", 4th 15/32"; approx. 1800V peak break-down voltage; 1 amp @ 28 VDC, .5 amp @ 115 VAC. Av. shpg. wt., 5 oz.

SHORTING TYPES JC

Stk. No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F666	399468JC	1	1	2-12	2.46	2.05	1.85	1.76	1.64	1.48
57F668	399470JC	2	2	2-12	3.54	2.95	2.66	2.53	2.36	2.12
57F670	399472JC	3	3	2-12	4.50	3.75	3.38	3.21	3.00	2.70
57F672	399474JC	4	4	2-12	5.40	4.50	4.05	3.85	3.60	3.24
57F674	399476JC	1	2	2-6	2.46	2.05	1.85	1.76	1.64	1.48
57F676	399478JC	2	4	2-6	3.54	2.95	2.66	2.53	2.36	2.12
57F678	399480JC	3	6	2-6	4.50	3.75	3.38	3.21	3.00	2.70
57F680	399484JC	1	6	2	2.46	2.05	1.85	1.76	1.64	1.48
57F682	399486JC	2	12	2	3.54	2.95	2.66	2.53	2.36	2.12

NON-SHORTING TYPES JC

57F667	399469JC	1	1	2-12	2.46	2.05	1.85	1.76	1.64	1.48
57F669	399471JC	2	2	2-12	3.54	2.95	2.66	2.53	2.36	2.12
57F671	399473JC	3	3	2-12	4.50	3.75	3.38	3.21	3.00	2.70
57F673	399475JC	4	4	2-12	5.40	4.50	4.05	3.85	3.60	3.24
57F675	399477JC	1	2	2-6	2.46	2.05	1.85	1.76	1.64	1.48
57F677	399479JC	2	4	2-6	3.54	2.95	2.66	2.53	2.36	2.12
57F679	399481JC	3	6	2-6	4.50	3.75	3.38	3.21	3.00	2.70
57F681	399485JC	1	6	2	2.46	2.05	1.85	1.76	1.64	1.48
57F683	399487JC	2	12	2	3.54	2.95	2.66	2.53	2.36	2.12

PHENOLIC INSULATED SWITCHES

Series H. Dual ball, 30° indexing. Meet MIL-S-3786A, 50-Hr. salt spray finishes. Frame dim. 1⅞"H. x 1 19/32" W., 1 13/16" over clips. ¼" dia. x 2⅜"L., shaft break-off points @ ¾", 1⅛", 1⅞" from mounting surf. Adj. stop. Sect. spacing 1st spacer ½"; 2nd 1"; 3rd 1" Approx. 2500V peak break-down voltage, 1 amp @ 28 VDC, .5 amp @ 115 VAC. Av. shpg. wt. 4 oz.

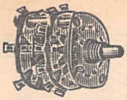
SHORTING TYPES "H"

Stk. No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F684	399512H	1	1	2-11	2.64	2.20	1.98	1.88	1.76	1.58
57F686	399514H	2	2	2-11	3.18	2.65	2.39	2.27	2.12	1.91
57F688	399516H	3	3	2-11	4.05	3.88	3.49	3.32	2.70	2.43
57F690	399518H	1	2	2-5	2.64	2.20	1.98	1.88	1.76	1.58
57F692	399520H	2	4	2-5	3.18	2.65	2.39	2.27	2.12	1.91
57F694	399522H	3	6	2-5	4.05	3.88	3.49	3.32	2.70	2.43

NON-SHORTING TYPES "H"

57F685	399513H	1	1	2-11	2.64	2.20	1.98	1.88	1.76	1.58
57F687	399515H	2	2	2-11	3.18	2.65	2.39	2.27	2.12	1.91
57F689	399517H	3	3	2-11	4.05	3.88	3.49	3.32	2.70	2.43
57F691	399519H	1	2	2-5	2.64	2.20	1.98	1.88	1.76	1.58
57F693	399521H	2	4	2-5	3.18	2.65	2.39	2.27	2.12	1.91
57F695	399523H	3	6	2-5	4.05	3.88	3.49	3.32	2.70	2.43

OAK ROTARY SWITCHES, ASSEMBLIES



STEATITE CERAMIC INSULATION SWITCHES

Series HC. Meet MIL-S-3786A, 50-Hr. salt spray finishes. Dual ball, 30° indexing. Frame dim. 1⅞"H.x1⅝"W. 1⅞" over clips ¼" dia.x2⅜"L, shaft break-off points @ ¾, 1⅛, 1⅞, from mounting surf. Adj stop; Sect. spacing 1st spacer ½"; 2nd 15/16"; 3rd 1". Approx. 2500V. peak break-down voltage, 1 amp @ 28 VDC, .5 amp 115 VAC. Av. Wt., 5 oz.

SHORTING TYPES "HC"

Stk. No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F696	399562HC	1	1	2-11	2.94	2.45	2.21	2.10	1.96	1.76
57F698	399564HC	2	2	2-11	4.17	3.48	3.13	2.97	2.78	2.50
57F700	399566HC	3	3	2-11	5.37	4.48	4.03	3.83	3.58	3.22
57F702	399568HC	1	2	2-5	2.94	2.45	2.21	2.10	1.96	1.76
57F704	399570HC	2	4	2-5	4.17	3.48	3.13	2.97	2.78	2.50
57F706	399572HC	3	6	2-5	5.37	4.48	4.03	3.83	3.58	3.22

NON-SHORTING TYPES "HC"

57F697	399563HC	1	1	2-11	2.94	2.45	2.21	2.10	1.96	1.76
57F699	399565HC	2	2	2-11	4.17	3.48	3.13	2.97	2.78	2.50
57F701	399567HC	3	3	2-11	5.37	4.48	4.03	3.83	3.58	3.22
57F703	399569HC	1	2	2-5	2.94	2.45	2.21	2.10	1.96	1.76
57F705	399571HC	2	4	2-5	4.17	3.48	3.13	2.97	2.78	2.50
57F707	399573HC	3	6	2-5	5.37	4.48	4.03	3.83	3.58	3.22

PHENOLIC INSULATION SWITCHES

Series L. Single ball, 20° indexing. Meet Mil-S-3786A, 50-hr. salt spray finishes. Frame dim. 2 5/16"H.x1 31/32"W.2⅛" over clips. ¼" dia.x2⅜"L., shaft, break-off points @ ¾, 1⅛, 1⅞, from mounting surf. Adj. stop 2-17 pos. adjustable. Sect. spacing all ½". Approx. 1000V. peak break-down voltage, 1 amp @ 28 VDC, .5 amp @ 115 VAC. Av. shpg. wt., 4 oz.

SHORTING TYPES "L"

Stk. No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F708	399608L	1	1	2-17	2.34	1.95	1.76	1.67	1.56	1.40
57F710	399610L	2	2	2-17	3.36	2.80	2.52	2.39	2.24	2.02
57F712	399612L	3	3	2-17	4.38	3.65	3.29	3.13	2.92	2.63
57F714	399614L	4	4	2-17	4.95	4.03	3.63	3.45	3.30	2.97

NON-SHORTING TYPES "L"

57F709	399609L	1	1	2-17	2.34	1.95	1.76	1.67	1.56	1.40
57F711	399611L	2	2	2-17	3.36	2.80	2.52	2.39	2.24	2.02
57F713	399613L	3	3	2-17	4.38	3.65	3.29	3.13	2.92	2.63
57F715	399615L	4	4	2-17	4.95	4.03	3.63	3.45	3.30	2.97

PHENOLIC INSULATION SWITCHES

Series MF. Single ball 15° indexing, phenolic insul. Meet MIL-S-3786A, 50-hr. salt spray finishes. Frame dim. 2 5/16"H.x 1 31/32"W., 1 13/16" over clips. ¼" dia.x 2⅜"L., shaft break-off points @ ¾, 1⅛, 1⅞ from mounting surf. Adj. stop 2-23 pos. adjustable. Sect. spacing all ½". 1000V. peak break-down voltage, 1 amp. @ 28 VDC, .5 amp @ 115 VAC. Av. shpg. wt., 4 oz.

SHORTING TYPE "MF"

Stk. No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F716	399658MF	1	1	2-23	2.52	2.10	1.89	1.80	1.68	1.51
57F718	399660MF	2	2	2-23	3.60	3.00	2.70	2.57	2.40	2.16
57F720	399662MF	3	3	2-23	4.71	3.93	3.54	3.36	3.14	2.83
57F722	399664MF	4	4	2-23	5.34	4.45	4.01	3.81	3.56	3.20

NON-SHORTING TYPE "MF"

57F717	399659MF	1	1	2-23	2.52	2.10	1.89	1.80	1.68	1.51
57F719	399661MF	2	2	2-23	3.60	3.00	2.70	2.57	2.40	2.16
57F721	399663MF	3	3	2-23	4.71	3.93	3.54	3.36	3.14	2.83
57F723	399665MF	4	4	2-23	5.34	4.45	4.01	3.81	3.56	3.20

SPECIAL 200-HOUR SALT SPRAY REQUIREMENT TYPES

Same specs as 50-Hour Type above. Silver Alloy, Gold Flash Clips and Silver Alloy Rotor Blades. All frame materials stainless steel or nickel-plated brass. Stainless steel parts are passivated. Av. shpg. wt., 5 oz.

SHORTING TYPE SWITCH "A"

Stk. No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F724	399240A	1	1	2-12	5.70	4.75	4.28	4.07	3.80	3.42

NON-SHORTING TYPE SWITCH "A"

57F725	399241A	1	1	2-12	5.70	4.75	4.28	4.07	3.80	3.42

SHORTING TYPE SWITCH "F"

57F726	399338F	1	1	2-11	3.24	2.70	2.43	2.31	2.16	1.94

NON-SHORTING TYPE SWITCH "F"

57F727	399339F	1	1	2-11	3.24	2.70	2.43	2.31	2.16	1.94

SHORTING TYPE SWITCH "FC"

57F728	399382FC	1	1	2-11	3.54	2.95	2.66	2.53	2.36	2.12

NON-SHORTING TYPE SWITCH "FC"

57F729	399383FC	1	1	2-11	3.54	2.95	2.66	2.53	2.36	2.12

SECTIONS

These Oak Sections have the same specifications as the corresponding complete switches listed. Av. shpg. wt., 2 oz.

SHORTING "A"

Stk. No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F730	399032A	A	1	2-12	3.09	2.58	2.32	2.20	2.06	1.85
57F732	399034A	A	2	2-6	3.09	2.58	2.32	2.20	2.06	1.85
57F734	399036A	A	4	2	3.09	2.58	2.32	2.20	2.06	1.85

NON-SHORTING "A"

57F731	399033A	A	1	2-12	3.09	2.58	2.32	2.20	2.06	1.85
57F733	399035A	A	2	2-6	3.09	2.58	2.32	2.20	2.06	1.85
57F735	399037A	A	4	2	3.09	2.58	2.32	2.20	2.06	1.85

SHORTING "F"

57F736	399070F	F	1	2-11	1.11	.93	.84	.80	.74	.67
57F738	399072F	F	2	2-5	1.11	.93	.84	.80	.74	.67
57F740	399074F	F	3	2-3	1.11	.93	.84	.80	.74	.67
57F742	399076F	F	4	2	1.11	.93	.84	.80	.74	.67

NON-SHORTING "F"

57F737	399071F	F	1	2-11	1.11	.93	.84	.80	.74	.67
57F739	399073F	F	2	2-5	1.11	.93	.84	.80	.74	.67
57F741	399075F	F	3	2-3	1.11	.93	.84	.80	.74	.67
57F743	399077F	F	4	2	1.11	.93	.84	.80	.74	.67

SHORTING "FC"

57F744	399090FC	FC	1	2-11	1.41	1.18	1.06	1.01	.94	.85
57F746	399092FC	FC	2	2-5	1.41	1.18	1.06	1.01	.94	.85
57F748	399094FC	FC	3	2-3	1.41	1.18	1.06	1.01	.94	.85
57F750	399096FC	FC	4	2	1.41	1.18	1.06	1.01	.94	.85

NON-SHORTING "FC"

57F745	399091FC	FC	1	2-11	1.41	1.18	1.06	1.01	.94	.85
57F747	399093FC	FC	2	2-5	1.41	1.18	1.06	1.01	.94	.85
57F749	399095FC	FC	3	2-3	1.41	1.18	1.06	1.01	.94	.85
57F751	399097FC	FC	4	2	1.41	1.18	1.06	1.01	.94	.85

SHORTING "K"

57F752	399130K	K	1	2-12	.90	.75	.68	.65	.60	.59
57F754	399132K	K	2	2-6	.90	.75	.68	.65	.60	.59
57F756	399134K	K	6	2	.90	.75	.68	.65	.60	.59

NON-SHORTING "K"

57F753	399131K	K	1	2-12	.90	.75	.68	.65	.60	.59
57F755	399133K	K	2	2-6	.90	.75	.68	.65	.60	.59
57F757	399135K	K	6	2	.90	.75	.68	.65	.60	.59

SHORTING "JC"

57F758	399150JC	JC	1	2-12	1.26	1.05	.95	.90	.84	.76
57F760	399152JC	JC	2	2-6	1.26	1.05	.95	.90	.84	.76
57F762	399154JC	JC	6	2	1.26	1.05	.95	.90	.84	.76

NON-SHORTING "JC"

57F759	399151JC	JC	1	2-12	1.26	1.05	.95	.90	.84	.76
57F761	399153JC	JC	2	2-6	1.26	1.05	.95	.90	.84	.76
57F763	399155JC	JC	6	2	1.26	1.05	.95	.90	.84	.76

SHORTING "H"

57F764	399750H	H	1	2-11	1.11	.93	.84	.80	.74	.67
57F766	399752H	H	2	2-5	1.11	.93	.84	.80	.74	.67

NON-SHORTING "H"

57F765	399751H	H	1	2-11	1.11	.93	.84	.80	.74	.67
57F767	399753H	H	2	2-5	1.11	.93	.84	.80	.74	.67

SHORTING "HC"

57F768	399760HC	HC	1	2-11	1.41	1.18	1.06	1.01	.94	.85
57F770	399762HC	HC	2	2-5	1.41	1.18	1.06	1.01	.94	.85

NON-SHORTING "HC"

57F769	399761HC	HC	1	2-11	1.41	1.18	1.06	1.01	.94	.85
57F771	399763HC	HC	2	2-5	1.41	1.18	1.06	1.01	.94	.85

SHORTING "L"

57F772	399172L	L	1	1-17	1.14	.95	.86	.82	.76	.69

NON-SHORTING "L"

57F773	399173L	L	1	1-17	1.14	.95	.86	.82	.76	.69

SHORTING "MF"

57F774	399180MF	MF	1	1-23	1.20	1.00	.90	.85	.80	.72

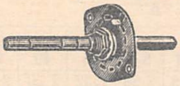
NON-SHORTING "MF"

57F775	399181MF	MF	1	1-23	1.20	1.00	.90	.85	.80	.72

ELECTRICAL COMPONENTS

OAK MANUFACTURING

SHAFT & INDEX ASSEMBLIES



Complete hardware consisting of mounting nut and lockwasher, stop washer, assembly tie rods and spacers, washers, nuts. Shpg. wt., 3 oz.

Stk. No.	Type	Sec.	DIM-K	Pole Pos.	1-4	5-9	10-24	25-49	50-99	100-249
57F776	399029A	A	6 3/64	2-12	2.25	1.88	1.69	1.60	1.50	1.35
57F795	399022A	A	4 19/32	2-12	3.00	2.50	2.25	2.14	2.00	1.80
57F777	399039F	F	1¼	2-12	1.56	1.30	1.17	1.11	1.04	.94
57F796	399021F	F	6⅛	2-12	2.49	2.08	1.88	1.79	1.66	1.50
57F778	399043K	K	2 17/32	2-12	1.44	1.20	1.08	1.03	.96	.86
57F797	399024K	K	6⅛	2-12	2.37	1.98	1.78	1.69	1.58	1.42
57F779	399023H	H	3 3/32	2-12	1.71	1.43	1.29	1.23	1.14	1.03
57F798	390023H	H	6⅛	2-12	2.64	2.20	1.98	1.88	1.76	1.59
57F780	399789L	L	2 19/32	2-18	1.80	1.50	1.35	1.28	1.20	1.08
57F799	399025L	L	6⅛	2-18	2.73	2.28	2.06	1.96	1.82	1.64
57F781	399793MF	MF	2 17/32	2-24	1.95	1.63	1.47	1.40	1.30	1.17
57F800	399026MF	MF	6⅛	2-24	2.88	2.40	2.16	2.06	1.92	1.73

SPECIAL FUNCTIONS SECTIONS

Same dimensions and materials as complete switches. Av. wt., 2 oz.

Consecutive Shorting Function—Type A

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
57F782	399056A	4.65	3.88	3.49	3.22	3.10	2.79

Binary Boded Decimal Output Switch—Type A, Non-Shorting

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
57F783	399061A	4.65	3.88	3.49	3.22	3.10	2.79

Resistor Decade—Type A, Non-Shorting

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
57F784	399057A	4.65	3.88	3.49	3.22	3.10	2.79

Capacitor Decade—Type A, Non-Shorting

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
57F785	399059A	4.65	3.88	3.49	3.22	3.10	2.79

All contacts shorted except selected position. 12 to 24 contacts depending on switch style.

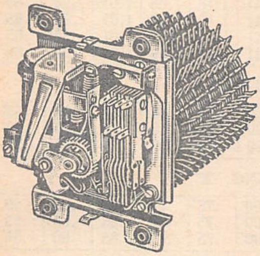
Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
57F786	399058A	4.65	3.88	3.49	3.22	3.10	2.79
57F787	399060F	1.56	1.30	1.17	1.11	1.04	.94
57F788	399062FC	2.10	1.75	1.58	1.50	1.40	1.26
57F789	399064K	1.35	1.13	1.02	.97	.90	.81
57F791	399068H	1.65	1.38	1.24	1.18	1.10	.99
57F792	399078HC	2.10	1.75	1.58	1.50	1.40	1.26
57F793	399080L	1.71	1.43	1.29	1.23	1.14	1.03
57F794	399082MF	1.80	1.50	1.35	1.28	1.20	1.08
57F790	399066JC	1.86	1.55	1.40	1.33	1.24	1.12

NORTH ELECTRIC

ELECTRIC TYPE "CC" RELAY

General purpose DC relay. DPDT silver contacts switch up to 2 amps. Av. contact res. 30 m/ohms. Ins. Rest. 105 megohms/25°C. Operate time less than 5 MS at 1.5w. Size: 1 5/16x1 11/16x11/16". Wt., 1 oz.

Stock No.	Type	VDC	DC (MA)	AC (MA)	1-9	10-24	25-49	50-99	100-499
57F095	528317	6	600	700	3.40	3.15	2.72	2.30	1.96
57F096	528319	12	600	700	3.40	3.15	2.72	2.30	1.96
57F097	528321	24	600	700	3.40	3.15	2.72	2.30	1.96
57F098	528231	48	300	600	3.50	3.24	2.80	2.36	2.01



"rvf" MOTORIZED ROTARY STEPPING SWITCH

Allows maximum flexibility in circuit approach—no longer is the engineer limited to one input per bank level. Used for programming, sequence control, routining test equipment, as an impulse counter, memory device, for tallying and counting in production control. Switching variations—30 points each for single wiper; 15 points each for double wiper. Composed of 2 rows of individual contacts. Non-bridging wipers. Silver plated bank contacts with nickel silver wipers. Rated at 1 amp at rest; .2 amp. non-inductive load when stepping; .05 amp. inductive load with spark suppression. Terminals specially designed for ease in wiring with either soldered connections or solderless connectors. Coils for 12 to 110 volts DC. Built-in varistor for spark suppression on all standard 24 and 48 volt switches. May be operated self-interrupted or with external impulses. Speed-up to 50 steps per sec. Dielectric strength between bank and wipers 750 volts RMS. Insulation resistance—bank and wipers 1000 megohms minimum. Complete dustproof plastic enclosure. 4¾x3½". Shpg. Wt., 2 lbs.

Single Wiper—Type II Individual Silver Contacts

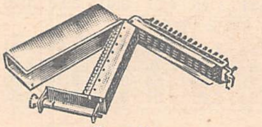
Stk. No.	Type	VDC	Decks	1-4	5-9	10-24	25-49
57F050	576432	24	4	37.10	33.39	29.68	25.97
57F051	579675	48	4	36.50	32.85	29.20	25.55
57F052	579676	110	4	35.45	31.95	28.36	24.82
57F053	564288	24	6	40.35	36.32	32.28	28.25
57F054	564287	48	6	39.75	35.78	31.80	27.83
57F055	564291	110	6	38.70	34.83	30.96	27.09

Double Wiper—Type II Individual Silver Contacts

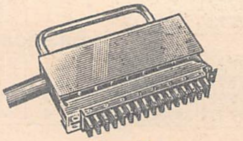
Stk. No.	Type	VDC	Decks	1-4	5-9	10-24	25-49
57F056	579680	24	4	43.25	38.93	34.60	30.28
57F057	579681	48	4	42.65	38.39	34.12	29.86
57F058	579682	110	4	41.60	37.44	33.28	29.12
57F059	564286	24	6	46.60	41.94	37.28	32.62
57F060	564289	48	6	46.00	41.40	36.80	32.20
57F061	564292	110	6	44.95	40.46	35.96	31.47

MULTI-CONTACT CONNECTORS

Plug and receptacle type connectors provide maximum connection concentration in a limited space. Designed for electronic cable to fixture applications. Permanent cable clamp is adjustable for varied cable sizes. Has removable cover for rapid wiring or inspection. Type D has locking bolt for securing plug to receptacle Type E has a pull handle in place of locking bolt. 3-hole mtg. Size: "D" 3½"H., "E" 4½"H., above mtg. surface, .948" deep. Contacts rated at 2 amps. each. Solder type terminals. M-Male, F-Female, P-Plug, R-Receptacle.



Type D



Type E

TYPE D

Stk. No.	Type	Pins	Lgth.	Mtg. Ctrs.	1-9	10-24	25-49	50-99
57F078	513945 FP	40	3.949"	3.042"	5.15	4.76	4.12	3.48
57F079	513947 MR	40	3.949"	3.042"	2.10	1.94	1.68	1.42
57F080	517455 MP	40	3.949"	3.042"	5.15	4.76	4.12	3.48
57F081	517840 FR	40	3.949"	3.042"	2.10	1.94	1.68	1.42
57F082	513925 FP	60	5.209"	4.302"	5.80	5.37	4.64	3.92
57F083	913927 MR	60	5.209"	4.302"	2.75	2.54	2.20	1.86
57F084	517456 MP	60	5.209"	4.302"	5.80	5.37	4.64	3.92
57F085	517844 FR	60	5.209"	4.302"	2.75	2.54	2.20	1.86
57F086	512241 FP	80	6.469"	5.562"	6.40	5.92	5.12	4.32
57F087	512240 MR	80	6.469"	5.562"	3.25	3.01	2.60	2.19
57F088	517457 MP	80	6.469"	5.562"	6.40	5.92	5.12	4.32
57F089	517848 FR	80	6.469"	5.562"	3.25	3.01	2.60	2.19
57F090	513936 FP	100	7.729"	6.822"	7.20	6.66	5.76	4.86
57F091	513938 MR	100	7.729"	6.822"	4.15	3.84	3.32	2.80
57F092	517458 MP	100	7.729"	6.822"	7.20	6.66	5.76	4.86
57F093	517853 FR	100	7.729"	6.822"	4.15	3.84	3.32	2.80

TYPE E

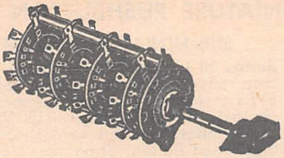
Stk. No.	Type	Pins	Lgth.	Mtg. Ctrs.	1-9	10-24	25-49	50-99
57F062	521165 FP	40	3.324"	3.042"	6.05	5.60	4.84	4.08
57F063	513948 MR	40	3.324"	3.042"	1.45	1.34	1.16	.98
57F064	521167 MP	40	3.324"	3.042"	6.05	5.60	4.84	4.08
57F065	513975 FR	40	3.324"	3.042"	1.45	1.34	1.16	.98
57F066	521169 FP	60	4.584"	4.302"	6.70	5.55	5.36	4.52
57F067	513928 MR	60	4.584"	4.302"	2.10	1.94	5.36	1.42
57F068	521171 MP	60	4.584"	4.302"	6.70	5.55	1.68	4.52
57F069	513976 FR	60	4.584"	4.302"	2.10	1.94	1.68	1.42
57F070	521173 FP	80	5.844"	5.562"	7.30	6.75	5.84	4.93
57F071	513934 MR	80	5.844"	5.562"	2.75	2.54	2.20	1.86
57F072	521175 MP	80	5.844"	5.562"	7.30	6.75	5.84	4.93
57F073	513977 FR	80	5.844"	5.562"	2.75	2.54	2.20	1.86
57F074	521177 FP	100	7.104"	6.822"	8.10	7.49	6.48	5.47
57F075	513939 MR	100	7.104"	6.822"	3.50	3.24	2.80	2.36
57F076	521179 MP	100	7.104"	6.822"	8.10	7.49	6.48	5.47
57F077	513978 FR	100	7.104"	6.822"	3.50	3.24	2.80	2.36

57F094. North Electric Components Handbook. Newly enlarged, 130 pp., devoted to useful information on electromagnetic and electronic switching devices. Covers relay and switch terminology and theory. Reference, application, and technical data. **NET**........................**2.00**

QUALITY SWITCHES

P. R. MALLORY & CO. INC.
MALLORY

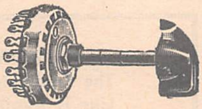
1200L AND 1300L SERIES GANG SWITCHES



Has one fixed, one adjustable stop, silver-plated contacts and phosphor-bronze springs. 3- and 4-gang spaced 1"; all others, ½". 2" notched shaft. Shorting-type make before break. Require 7/16" mtg. hole. With bar knob and mtg. hardware, less mtg. plate. *Has additional "off" position with all circuits open. Wt. av., 8 oz.

Shorting No.	Shorting Type	Non-Shorting No.	Non-Shorting Type	Gangs	Total Poles	Pos. per Pole	1-4	5-9	10-24	25-49	50-99	100-499
22F000	1211L	22F016	1311L	1	1	11	2.10	1.75	1.58	1.50	1.40	1.26
22F001	1215L*	22F017	1315L*	1	2	5	2.10	1.75	1.58	1.50	1.40	1.26
22F002	1213L*	22F018	1313L*	1	3	3	2.10	1.75	1.58	1.50	1.40	1.26
22F003	1212L*	22F019	1312L*	1	4	2	2.10	1.75	1.58	1.50	1.40	1.26
22F004	1221L	22F020	1321L	2	2	11	2.58	2.15	1.94	1.84	1.72	1.55
22F005	1225L*	22F021	1325L*	2	4	5	2.58	2.15	1.94	1.84	1.72	1.55
		22F023	1322L*	2	8	2	2.58	2.15	1.94	1.84	1.72	1.55
22F008	1231L*	22F024	1331L*	3	3	11	3.24	2.70	2.43	2.31	2.16	1.94
22F009	1235L*	22F025	1335L*	3	6	5	3.24	2.70	2.43	2.31	2.16	1.94
22F010	1241L*	22F026	1341L*	4	4	11	3.81	3.18	2.86	2.71	2.54	2.29
22F011	1245L*	22F027	1345L*	4	8	5	3.81	3.18	2.86	2.71	2.54	2.29
		22F028	1351L	5	5	11	4.11	3.43	3.08	2.93	2.74	2.47
		22F029	1356L	5	10	6	4.83	4.03	3.62	3.44	3.22	2.90
22F014	1261L	22F030	1361L	6	6	11	4.83	4.03	3.62	3.44	3.22	2.90
22F015	1266L	22F031	1366L	6	12	6	5.52	4.60	4.14	3.93	3.68	3.31
....	....	22F022	1323L	2	3	3	2.58	2.15	1.94	1.84	1.72	1.55

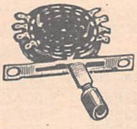
SINGLE GANG SWITCHES



Well-constructed and versatile units for servicing and industrial use. Compact, enclosed switches with 2" notched shaft; 3/8" threaded bushing 3/8" long. With bar knob and nut. All 1 11/16" base dia. types have adjustable stops. For band switching, etc. Use plates listed at left. A volume plate and a 0-100 plate are also available. Shpg. wt., 4 oz.

Shorting No.	Shorting Type	Non-Shorting No.	Non-Shorting Type	Poles	Pos.	Base Dia.	1-4	5-9	10-24	25-49	50-99	100-499
22F040	31115J	22F052	3215J	1	5	1¼"	1.02	.85	.77	.73	.68	.61
22F041	31112J	22F053	32112J	1	12	1¼"	1.02	.85	.77	.73	.68	.61
22F042	3122J	22F054	3222J	2	2	1¼"	1.02	.85	.77	.73	.68	.61
22F043	3123J	22F055	3223J	2	3	1¼"	1.02	.85	.77	.73	.68	.61
22F044	3126J	22F056	3226J	2	6	1¼"	1.02	.85	.77	.73	.68	.61
22F045	3134J	22F057	3234J	3	4	1¼"	1.05	.88	.79	.75	.70	.63
22F046	3142J	22F058	3242J	4	2	1¼"	1.05	.88	.79	.75	.70	.63
22F047	3143J	22F059	3243J	4	3	1¼"	1.05	.88	.79	.75	.70	.63
22F048	31117J	22F060	32117J	1	17	1 11/16"	1.56	1.30	1.17	1.11	1.04	.94
22F049	3129J	22F061	3229J	2	9	1 11/16"	1.56	1.30	1.17	1.11	1.04	.94
22F050	3136J	22F062	3236J	3	6	1 11/16"	1.65	1.38	1.24	1.18	1.10	.99
22F051	3163J	22F063	3263J	6	3	1 11/16"	1.65	1.38	1.24	1.18	1.10	.99

LEVER ACTION SWITCHES



5000 Series elongated mounting holes with mounting centers of 29/32". The 6000 Series have round holes spaced 1⅝" apart. May be mounted singly or grouped with ¾" between lever arm centers. Voltage breakdown rating 500 V AC-DC. Maximum and minimum breaking currents, resistive load, .125A @ 300V DC, 3A @ 6V DC, .2A @ 300V AC and 5A @ 5V AC.

Shorting Stk. No.	Shorting Type	Non-shorting Stk. No.	Non-shorting Type	No. of Poles	No. of Position	1-4	5-9	10-24	25-49	50-99	100-499
22F131	5124	22F134	5224	2	4	1.38	1.15	1.04	.98	.92	.83
22F132	6142	22F135	6242	4	2	1.20	1.00	.90	.86	.80	.72
22F133	6143	22F136	6243	4	3	1.20	1.00	.90	.86	.80	.72

DIAL PLATES FOR ROTARY SWITCHES

MALLORY
OFF

Types 372 to 390 for switches 1200L, 1300L and 1¼" base 3100J, 3200J types. Others are designed for 1 11/64" base 3100J and 3200J types. All are etched aluminum. Shpg. wt., 1 oz.

PLATES FOR 1¼" BASE SWITCHES
30° SPACING

No.	Type	Mark
22F150	372	1 to 2
22F151	373	1 to 3
22F152	374	1 to 4
22F153	375	1 to 5
22F154	376	1 to 6
22F155	377	1 to 7
22F156	378	1 to 8
22F157	379	1 to 9
22F158	380	1 to 10
22F159	381	1 to 11
22F160	382	1 to 12
22F161	383	off 1 to 3
22F162	384	off 1 to 4
22F163	385	off 1 to 5
22F164	386	off 1 to 6
22F165	387	off 1 to 7
22F166	388	off 1 to 8
22F167	389	off 1 to 9
22F168	390	off 1 to 10

NET EACH **12c**

PLATES FOR 1-11/16" BASE SWITCHES
20° SPACING

No.	Type	Mark
22F169	453	1 to 3
22F170	454	1 to 4
22F171	455	1 to 5
22F172	456	1 to 6
22F173	457	1 to 7
22F174	458	1 to 8
22F175	459	1 to 9
22F176	460	1 to 10
22F177	461	1 to 11
22F178	462	1 to 12
22F179	467	1 to 17
22F180	473	off 1 to 3
22F181	474	off 1 to 4
22F184	477	off 1 to 7
22F185	478	off 1 to 8
22F186	479	off 1 to 9
22F187	480	off 1 to 10

NET EACH **12c**

22F188. Type 369. 0-100 plate for either type switch. **EA.** 15c

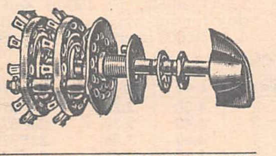
22F189. Type 391. Volume plate for either type switch 15c

22F190. Type 395. 0-10 plate for standard controls 15c

22F191. Type 393. 0-10 for "C" type Rheostat and Pots 15c

22F292. Type 399. 0-10 for "E" type potentiometers 21c

CIRCUIT SELECTOR SWITCHES



Ceramic-section switches with low RF losses. Adjustable stop. 2 gang spaced ½"; 3 gang, 1". With 2" grooved shaft, knob, and hardware. *Has 1 circuit and 11 positions. †Has 2 circuits and 5 positions and ‡has 3 circuits and 3 positions per gang. Wt., 8 oz.

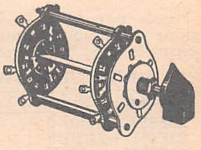
Stk. No.	Types	Gang	1-4	5-9	10-24	25-49	50-99	100-499
22F070	172C	1*	2.37	1.98	1.78	1.69	1.58	1.42
22F071	173C	1†	2.37	1.98	1.78	1.69	1.58	1.42
22F072	174C	1‡	2.37	1.98	1.78	1.69	1.58	1.42
22F073	176C	2*	3.39	2.82	2.54	2.42	2.26	2.03
22F074	177C	2†	3.39	2.82	2.54	2.42	2.26	2.03
22F075	178C	2‡	3.39	2.82	2.54	2.42	2.26	2.03
22F077	180C	3*	4.32	3.60	3.24	3.08	2.88	2.59
22F078	181C	3†	4.32	3.60	3.24	3.08	2.88	2.59

MALLORY DECADE SWITCHES

Designed for simplified construction of capacitor and resistor decade boxes. Phenolic insulation. Mtg. depth behind panel 1". Lateral mtg. space 2". Steel shaft is ¼" dia. x 2" long. Complete with knob, lock washer and nut. Wt., 6 oz.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-499
22F087	153L	2.70	2.25	2.03	1.92	1.80	1.62
22F088	154L	2.94	2.45	2.21	2.09	1.96	1.76

MALLORY "HAMSWITCHES"



Type 151L. 2-section, 5-position switch. Non-shorting type. For switching meter circuits. 2¼" spacing between sections. Rated at 1000 volts AC or 1500 volts DC, 60° indexing between positions. With knob, nut, washer. Shpg. wt., 6 oz.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-499
22F080	151L	2.70	2.25	2.03	1.92	1.80	1.62

Type 13124L Tap Switch. Single circuit 24-position non-shorting switch. Continuous rotation. 3/8" bushing. 2" notched shaft. 15° indexing between positions. With bar knob, dial plate and mtg. hardware. Wt., 6 oz.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-499
22F085	13124L	2.76	2.30	2.07	1.97	1.84	1.66

Type 1400L Circuit Opening Switch. Opens any one of 12 "lines" for insertion of current reading meter. Maintains circuit on other 11 lines. Resistors can be wired so that switch not only opens line, but also cuts in selected resistor. With bar knob, dial plate, and hardware. Wt., 6 oz.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-499
22F086	1400L	4.68	3.90	3.51	3.33	3.12	2.81

Grayhill INC. SWITCHES

MINIATURE PUSHBUTTON SWITCHES

LIGHTED PUSH BUTTON SWITCH

Type 40-1. For use wherever switches and indicator lights are used together. Silent action, SPST, momentary contact, normally open. Life expectancy, 500,000 operations at rated load of 1 ampere, 115 VAC. 25/64" mounting hole required. Solder-type terminals. Overall length 1.84". Shpg. wt. 1 oz.

24F210. NET **2.00**

PUSH BUTTON SWITCHES

Series 2000. Momentary contact SPST. Rated 10 amps, 115 volts A.C. res. solder terminals. Size: 1.92"L.x.87"D. Wt., 1 oz.

Type 2201. Normally open. Red Button.

24F200. 1-49 .... 1.95

50-99 .... 1.46

Type 2202. Normally closed. Blk. Button.

24F201, 1-49 .... **1.95**

50-99 .... 1.46

MOMENTARY CONTACT SWITCH

Series 4000. Non-snap action switch, momentary contact, SPST. Rated ½ amp, 115 volts AC. Solder terminals. Size: 1.53"L. x .80"D. Shpg. Wt., 1 oz.

24F202. 4001. Normally open. Red Button.

24F203. 4002. Normally closed. Black Button.

1-49 .... **70c**

50-99 .... 53c

SUB-MINIATURE SWITCH

Series 30-1. Push button switch with coin silver contacts and terminals SPST. Normally open, momentary contact. Rated 1 amp.—115 VAC. OD—.375" length behind panel—.592. Length 63/64". Red Button. Shpg. wt. 1 oz.

24F205. 1-49 .... **95c**

50-99 .... .71

Series 30-2. Same as above except has black button and is Normally Closed.

24F206. 1-49 .... .95

50-99 .... .71

Series 35-1. Silent, Normally Open, momentary contact, push-button. DPST. ½ amp., 115 VAC Molded phenolic button housing. 117/64"Lx 51/64" Dia. Solder term. 100,000—operation life.

24F207 (Red Button) **1-49** 1.20

50-99 .... .90

IMPORTANT
The Complete Grayhill
Line is Available from
NEWARK
Check your needs now!

MINIATURE MOMENTARY CONTACT SWITCH

23-1. Momentary Contact Switch. Normally open SPST. ¼ amp, 115 volts, AC non-inductive. Length 1.047" and maximum diameter, ½". Solder terminals. Red button. Shpg. wt. 1 oz.

24F204. 1-49 .... 85c

50-99 .... 64c

BUTTON GUARD FOR SERIES 2000, 4000 & 35-1

Type 10C1015. Provides protective recess for buttons. Brass cadmium plated, fits 15/32"—32 thread.

23F496. 1-49 .... **25c**

50-99 .... 19c

ULTRA-MINIATURE SWITCH

Series 39-1. SPST. ½ amp., 115 vac. 1,000,000 operation life. Molded phenolic button and base. ¼"Dx19/32"L. Solder term. 11/64" mtg. hole. Shpg. wt. 1 oz.

24F209. (Red Button) **1-49** 1.00

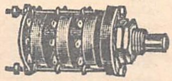
50-99 .... .75

PUSH-PULL SWITCH

Model 30-16. Requires ½" mounting hole. Push-on, pull-off switch rated at 1 amp, 115 volts AC. Single Pole, Single Throw, Normally Open with butt contact. Life expectancy of 100,000 cycles.

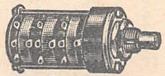
24F211. NET 1.15

MINIATURE ROTARY TAP SWITCHES



Series 5000
Multi-Deck

Series 5000
Single Deck



Series 24
Multi-Deck

Series 24
Single Deck

SERIES 5000

Rated to break one amp at 115 volts AC non-inductive—carry 5 amps. All have stops except 10-tap units, which are continuous rotation. Non-shorting contacts. Single hole panel mtg. ⅜" bushing. 11/32" diameter. 1 Pole per deck. Shpg. wt., approx. 4 oz.

*Depth behind Panel.

SINGLE-DECK SWITCHES *.47"

Stk. No.	Type	Taps	1-49	50-99
24F225	5-001-2	2	1.30	.98
24F226	5-001-3	3	1.35	1.02
24F227	5-001-4	4	1.40	1.05
24F228	5-001-5	5	1.45	1.09
24F229	5-001-6	6	1.50	1.13
24F230	5-001-7	7	1.55	1.17
24F231	5-001-8	8	1.60	1.20
24F232	5-001-9	9	1.65	1.24
24F233	5-001-10	10	1.70	1.28

2-DECK SWITCHES *1.25"

Stk. No.	Type	Taps	1-49	50-99
23F900	5-002-2	2	3.00	2.25
23F901	5-002-3	3	3.10	2.33
23F902	5-002-4	4	3.20	2.40
23F903	5-002-5	5	3.30	2.48
23F904	5-002-6	6	3.40	2.55
23F905	5-002-7	7	3.50	2.63
23F906	5-002-8	8	3.60	2.70
23F907	5-002-9	9	3.70	2.78
23F908	5-002-10	10	3.80	2.85

3-DECK SWITCHES *1.66"

Stk. No.	Type	Taps	1-49	50-99
23F909	5-003-2	2	3.65	2.74
23F910	5-003-3	3	3.80	2.85
23F911	5-003-4	4	3.95	2.97
23F912	5-003-5	5	4.10	3.08
23F913	5-003-6	6	4.25	3.19
23F914	5-003-7	7	4.40	3.30
23F915	5-003-8	8	4.55	3.42
23F916	5-003-9	9	4.70	3.53
23F917	5-003-10	10	4.85	3.64

GRAYHILL SERIES 24 MINIATURE TAP SWITCH (Fully Enclosed)

1 pole per deck, 2—9 positions with built-in stop, or 10 positions continuous rotation, non-shorting contacts. Break 1 amp., carry 5 amp, ⅜-32 threaded, keyed bushing. 11/32" O.D. Stands 125 G, 10-500 cps. 100-hr. salt spray, explosion, sand-and-dust, 28-day fungus exposure, humidity tests. Operates —55°C to +85°C & to 50,000 ft. at rated load. Shpg. wt., 5 oz. *Depth behind Panel.

SINGLE-DECK SWITCHES *.58"

Stk. No.	Type	Taps	1-49	50-99
23F950	24001-2	2	2.90	2.18
23F951	24001-3	3	3.00	2.25
23F952	24001-4	4	3.10	2.33
23F953	24001-5	5	3.25	2.44
23F954	24001-6	6	3.35	2.51
23F955	24001-7	7	3.45	2.59
23F956	24001-8	8	3.55	2.66
23F957	24001-9	9	3.65	2.74
23F958	24001-10	10	3.80	2.85

2-DECK SWITCHES *1.39"

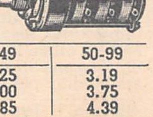
Stk. No.	Type	Taps	1-49	50-99
23F959	24002-2	2	4.30	3.23
23F960	24002-3	3	4.40	3.30
23F961	24002-4	4	4.50	3.38
23F962	24002-5	5	4.60	3.45
23F963	24002-6	6	4.75	3.56
23F964	24002-7	7	4.85	3.64
23F965	24002-8	8	4.95	3.72
23F966	24002-9	9	5.05	3.79
23F967	24002-10	10	5.15	3.85

3-DECK SWITCHES *1.77"

Stk. No.	Type	Taps	1-49	50-99
23F977	24003-2	2	5.00	3.75
23F978	24003-3	3	5.15	3.86
23F979	24003-4	4	5.30	3.98
23F980	24003-5	5	5.45	4.09
23F981	24003-6	6	5.65	4.24
23F982	24003-7	7	5.80	4.35
23F983	24003-8	8	5.95	4.47
23F984	24003-9	9	6.15	4.61
23F985	24003-10	10	6.30	4.73

All rotaries available up to 10 decks with up to 10 positions per deck.

NON-SHORTING SPRING-RETURN ROTARY SWITCHES



Series 24. Gives momentary contact on each side of the center position. 3 contacts on each deck. Shipping wt., 3 oz.

Stock No.	Type	Description	1-49	50-99
23F947	24101	One Deck	4.25	3.19
23F948	24102	Two Deck	5.00	3.75
23F949	24103	Three Deck	5.85	4.39

Available with Shorting Contacts on Special Order.

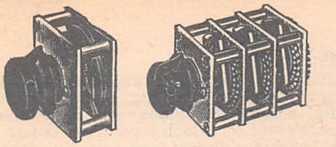
45 SERIES MIDGET ROTARY TAP SWITCHES

Single Deck, Single Pole only. 2 to 6 positions. Tops standard 2 to 5 positions. 6 position cont. rotation. 60 degree indexing. Non shorting contacts. Rated 1 amp at 115 volts AC. and carry 5 amps. .640"dia. 1.414" lgth. Shpg. wt., 4 oz.

Stk. No.	Type	1-49	50-99
23F968	45001-2	6.00	4.50
23F969	45001-3	6.10	4.58
23F970	45001-4	6.20	4.65
23F971	45001-5	6.30	4.73
23F972	45001-6	6.40	4.80

23F945. NON TURN WASHER Type 12C1087 .... .05

DAVEN ADJUSTABLE STOP SWITCHES



Allows number of switch positions to be changed at any time for maximum flexibility in all types of standard switch applications, circuit experimentations, laboratory work, breadboard setups and in circuitry where the exact number of switch positions might be changed at a later date. All applicable paragraphs of MIL-S-3786 and MIL-E-5272 are met and exceeded. Continuous current carrying capacity (not make or break) is 10 amperes. Metal parts are fabricated from corrosion-resistant materials. Plastics are heavily filled with non-organic fibres and are capable of withstanding high temperatures. Switch contacts and rotor arms are solid silver alloy.

1 3/4" . SQUARE

1 Deck Shorting 15° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F204	111CM-24A	111CM-2-24	1	24	18.50	14.80	12.60
10F205	121CM-11A	121CM-2-11	2	11	20.50	16.40	13.95
10F206	131CM-7A	131CM-2-7	3	7	22.50	18.00	15.30
10F207	141CM-5A	141CM-2-5	4	5	24.50	19.60	16.65

2 Decks Shorting 15° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F233	211CM-24A	211CM-2-24	1	24	30.45	24.35	20.70
10F234	221CM-11A	221CM-2-11	2	11	34.45	27.55	23.40
10F235	231CM-7A	231CM-2-7	3	7	38.45	30.75	26.10
10F236	241CM-5A	241CM-2-5	4	5	42.45	33.95	28.80

3 Decks Shorting 15° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F262	311CM-24A	311CM-2-24	1	24	42.40	33.90	28.80
10F263	321CM-11A	321CM-2-11	2	11	48.40	38.70	32.85
10F264	331CM-7A	331CM-2-7	3	7	54.40	43.50	36.90
10F265	341CM-5A	341CM-2-5	4	5	60.40	48.30	40.95

1 Deck Non-Shorting 30° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F200	111CB-12A	111CB-2-12	1	12	18.50	14.80	12.60
10F201	121CB-6A	121CB-2-6	2	6	20.50	16.40	13.95
10F202	131CB-4A	131CB-2-4	3	4	22.50	18.00	15.30
10F203	141CB-3A	141CB-2-3	4	3	24.50	19.60	16.65

2 Decks Non-Shorting 30° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F229	211CB-12A	211CB-2-12	1	12	30.45	24.35	20.70
10F230	221CB-6A	221CB-2-6	2	6	34.45	27.55	23.40
10F231	231CB-4A	231CB-2-4	3	4	38.45	30.75	26.10
10F232	241CB-3A	241CB-2-3	4	3	42.45	33.95	28.80

3 Decks Non-Shorting 30° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F258	311CB-12A	311CB-2-12	1	12	42.40	33.90	28.80
10F259	321CB-6A	321CB-2-6	2	6	48.40	38.70	32.85
10F260	331CB-4A	331CB-2-4	3	4	54.40	43.50	36.90
10F261	341CB-3A	341CB-2-3	4	3	60.40	48.30	40.95

1 Deck Shorting 11¼° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F212	112CM-32A	112CM-2-32	1	32	18.50	14.80	12.60
10F213	122CM-15A	122CM-2-15	2	15	20.50	16.40	13.95
10F214	132CM-10A	132CM-2-10	3	10	22.50	18.00	15.30
10F215	142CM-7A	142CM-2-7	4	7	24.50	19.60	16.65

2 Decks Shorting 11¼° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F241	212CM-32A	212CM-2-32	1	32	30.45	24.35	20.70
10F242	222CM-15A	222CM-2-15	2	15	34.45	27.55	23.40
10F243	232CM-10A	232CM-2-10	3	10	38.45	30.75	26.10
10F244	242CM-7A	242CM-2-7	4	7	42.45	33.95	28.80

3 Decks Shorting 11¼° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F270	312CM-32A	312CM-2-32	1	32	42.40	33.90	28.80
10F271	322CM-15A	322CM-2-15	2	15	48.40	38.70	32.85
10F272	332CM-10A	332CM-2-10	3	10	54.40	43.50	36.90
10F273	342CM-7A	342CM-2-7	4	7	60.40	48.30	40.95

1 Deck Non-Shorting 22½° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F208	112CB-16A	112CB-2-16	1	16	18.50	14.80	12.60
10F209	122CB-8A	122CB-2-8	2	8	20.50	16.40	13.95
10F210	132CB-5A	132CB-2-5	3	5	22.50	18.00	15.30
10F211	142CB-4A	142CB-2-4	4	4	24.50	19.60	16.65

2 Decks Non-Shorting 22½° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F237	212CB-16A	212CB-2-16	1	16	30.45	24.35	20.70
10F238	222CB-8A	222CB-2-8	2	8	34.45	27.55	23.40
10F239	232CB-5A	232CB-2-5	3	5	38.45	30.75	26.10
10F240	242CB-4A	242CB-2-4	4	4	42.45	33.95	28.80

3 Decks Non-Shorting 22½° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F266	312CB-16A	312CB-2-16	1	16	42.40	33.90	28.80
10F267	322CB-8A	322CB-2-8	2	8	48.40	38.70	32.85
10F268	332CB-5A	332CB-2-5	3	5	54.40	43.50	36.90
10F269	342CB-4A	342CB-2-4	4	4	60.40	48.30	40.95

2 1/4" SQUARE

1 Deck Shorting 15° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F220	121DM-24A	121DM-2-24 121EM-2-24	2	24	22.85	18.30	15.55
10F221	131DM-11A	131DM-2-11 131EM-2-11	3	11	25.70	20.60	17.50
10F222	141DM-11A	141DM-2-11 141EM-2-11	4	11	28.55	22.90	19.45

2 Decks Shorting 15° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F249	221DM-24A	221DM-2-24 221EM-2-24	2	24	39.20	31.40	26.70
10F250	231DM-11A	231DM-2-11 231EM-2-11	3	11	44.90	36.00	30.60
10F251	241DM-11A	241DM-2-11 241EM-2-11	4	11	50.60	40.60	34.50

3 Decks Shorting 15° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F278	321DM-24A	321DM-2-24 321EM-2-24	2	24	55.55	44.50	37.85
10F279	331DM-11A	331DM-2-11 331EM-2-11	3	11	64.10	51.40	43.70
10F286	341DM-11A	341DM-2-11 341EM-2-11	4	11	72.65	58.30	49.55

1 Deck Non-Shorting 15° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F216	113DB-24A	113DB-2-24 113EB-2-24	1	24	20.00	16.00	13.60

2 Decks Non-Shorting 15° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F245	213DB-24A	213DB-2-24 213EB-2-24	1	24	33.50	26.80	22.80

3 Decks Non-Shorting 15° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F274	313DB-24A	313DB-2-24 313EB-2-24	1	24	47.00	37.60	32.00

1 Deck Non-Shorting 30° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F217	121DB-12A	121DB-2-12 121EB-2-12	2	12	22.85	18.30	15.55
10F218	131DB-6A	131DB-2-6 131EB-2-6	3	6	25.70	20.60	17.50
10F219	141DB-6A	141DB-2-6 141EB-2-6	4	6	28.55	22.90	19.45

2 Decks Non-Shorting 30° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F246	221DB-12A	221DB-2-12 221EB-2-12	2	12	39.20	31.40	26.70
10F247	231DB-6A	231DB-2-6 231EB-2-6	3	6	44.90	36.00	30.60
10F248	241DB-6A	241DB-2-6 241EB-2-6	4	6	50.60	40.60	34.50

3 Decks Non-Shorting 30° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F275	321DB-12A	321DB-2-12 321EB-2-12	2	12	55.55	44.50	37.85

3 Decks Non-Shorting 30° Between Positions Continued

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F276	331DB-6A	331DB-2-6 331EB-2-6	3	6	64.10	51.40	43.70
10F277	341DB-6A	341DB-2-6 341EB-2-6	4	6	72.65	58.30	49.55

1 Deck Shorting 11¼° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F226	122DM-32A	122DM-2-32 122EM-2-32	2	32	22.85	18.30	15.55
10F227	132DM-15A	132DM-2-15 132EM-2-15	3	15	25.70	20.60	17.50
10F228	142DM-15A	142DM-2-15 142EM-2-15	4	15	28.55	22.90	19.45

2 Decks Shorting 11¼° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F255	222DM-32A	222DM-2-32 222EM-2-32	2	32	39.20	31.40	26.70
10F256	232DM-15A	232DM-2-15 232EM-2-15	3	15	44.90	36.00	30.60
10F257	242DM-15A	242DM-2-15 242EM-2-15	4	15	50.60	40.60	34.50

3 Decks Shorting 11¼° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F283	322DM-32A	322DM-2-32 322EM-2-32	2	32	55.55	44.50	37.85
10F284	332DM-15A	332DM-2-15 332EM-2-15	3	15	64.10	51.40	43.70
10F285	342DM-15A	342DM-2-15 342EM-2-15	4	15	72.65	58.30	49.55

1 Deck Non-Shorting 22½° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F223	122DB-16A	122DB-2-16 122EB-2-16	2	16	22.85	18.30	15.55
10F224	132DB-8A	132DB-2-8 132EB-2-8	3	8	25.70	20.60	17.50
10F225	142DB-8A	142DB-2-8 142EB-2-8	4	8	28.55	22.90	19.45

2 Decks Non-Shorting 22½° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F252	222DB-16A	222DB-2-16 222EB-2-16	2	16	39.20	31.40	26.70
10F253	232DB-8A	232DB-2-8 232EB-2-8	3	8	44.90	36.00	30.60
10F254	242DB-8A	242DB-2-8 242EB-2-8	4	8	50.60	40.60	34.50

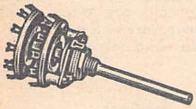
3 Decks Non-Shorting 22½° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9	10-24
10F280	322DB-16A	322DB-2-16 322EB-2-16	2	16	55.55	44.50	37.85
10F281	332DB-8A	332DB-2-8 332EB-2-8	3	8	64.10	51.40	43.70
10F282	342DB-8A	342DB-2-8 342EB-2-8	4	8	72.65	58.30	49.55

Centralab SWITCHES

MILITARY SWITCHES

MINIATURE CERAMIC INSULATED ROTARY SWITCHES—MEETS MIL-S-3786A



PA-6000 Series. Dow Corning 200 Silicone treated. Voltage breakdown, 1000v AC-RMS. Ratings, 4.50 ma at 115v AC; 8 amps at 6v DC (resistive load). Ceramic sections: 1⁹⁄₃₂", 1¹⁄₃₂", strut centers. .125" thick across strut holes. Mounting: Single hole with locating lug. Bushing: ⅜"-32NEF-2A thread, ⅜" long from mtg. surface. Shaft: ¼" D, 2¼" long from mtg. surface. 30° index with adjustable stops or continuous rotation, except (*) which have fixed (2 pos.) stops. Coin silver contacts, hot solder dipped terminals. Nut, lockwasher and pointer knob included. Shpg. wt., 4 oz.

Shorting

Stock No.	Type	Poles	No. Pos.	No. Sec.	1-4	5-9	10-24	25-49	50-99	100-249
57F950	PA-6000	1	2-11	1	3.39	2.83	2.55	2.42	2.26	2.03
57F951	PA-6002	2	2-5	1	3.39	2.83	2.55	2.42	2.26	2.03
57F952	PA-6004	2	2-11	2	5.19	4.33	3.90	3.71	3.46	3.11
57F953	PA-6006	3	2-3	1	3.39	2.83	2.55	2.42	2.26	2.03
57F954	PA-6010*	4	2	1	3.39	2.83	2.55	2.42	2.26	2.03
57F955	PA-6012	4	2-5	2	5.19	4.33	3.90	3.71	3.46	3.11
57F956	PA-6018	6	2-3	2	5.19	4.33	3.90	3.71	3.46	3.11
57F957	PA-6024*	8	2	2	5.19	4.33	3.90	3.71	3.46	3.11

Non-Shorting

Stock No.	Type	Poles	No. Pos.	No. Sec.	1-4	5-9	10-24	25-49	50-99	100-249
57F958	PA-6001	1	2-11	1	3.39	2.83	2.55	2.42	2.26	2.03
57F959	PA-6003	2	2-5	1	3.39	2.83	2.55	2.42	2.26	2.03
57F960	PA-6005	2	2-11	2	5.19	4.33	3.90	3.71	3.46	3.11
57F961	PA-6007	3	2-3	1	3.39	2.83	2.55	2.42	2.26	2.03
57F962	PA-6011*	4	2	1	3.39	2.83	2.55	2.42	2.26	2.03
57F963	PA-6013	4	2-5	2	5.19	4.33	3.90	3.71	3.46	3.11
57F964	PA-6019	6	2-3	2	5.19	4.33	3.90	3.71	3.46	3.11
57F965	PA-6025*	8	2	2	5.19	4.33	3.90	3.71	3.46	3.11

PA-600 SEPARATE INDEX ASSEMBLY—MEETS MIL-S-3786A

Used with PA-60, PA-70 or PA-80 series separate sections to assemble special units of 1 to 4 sections. 30° indexing. Shpg. wt., 3 ounces.

No.	Type	For Switches	Shaft Length	1-4	5-9	10-24	25-49	50-99	100-249
57F966	PA-600	1 to 4 sect.	2"	1.50	1.25	1.13	1.07	1.00	.90

SEPARATE PHENOLIC SECTIONS—MEETS MIL-S-3786A

For use with PA-600 index assembly. Sections 1⁹⁄₃₂". .062" thick. Coin silver clips and contacts. Hot solder dipped terminals. Breakdown voltage 1000v. AC-RMS between critical parts. Shipping weight, 1 ounce.

Shorting

Stock No.	Type	Total Poles	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
57F967	PA-60	1	2-11	1.35	1.13	1.02	.97	.90	.81
57F968	PA-62	2	2-5						
57F969	PA-64	3	2-3						
57F970	PA-66	4	2						

Non-Shorting

Stock No.	Type	Total Poles	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
57F971	PA-61	1	2-11	1.35	1.13	1.02	.97	.90	.81
57F972	PA-63	2	2-5						
57F973	PA-65	3	2-3						
57F974	PA-67	4	2						

SEPARATE MYCALEX SECTIONS—MEETS MIL-S-3786A

For use with PA-600 index assembly. Sections 1⁹⁄₃₂"., .125" thick across strut holes. Coin silver clips and contacts. Hot solder dipped terminals. Breakdown voltage 1000v AC-RMS between critical parts. Shipping weight, 1 ounce.

Shorting

Stock No.	Type	Total Poles	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
57F975	PA-70	1	2-11	1.98	1.65	1.49	1.42	1.32	1.19
57F976	PA-72	2	2-5						
57F977	PA-74	3	2-3						
57F978	PA-76	4	2						

Non-Shorting

Stock No.	Type	Total Poles	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
57F979	PA-71	1	2-11	1.98	1.65	1.49	1.42	1.32	1.19
57F980	PA-73	2	2-5						
57F981	PA-75	3	2-3						
57F982	PA-77	4	2						

SEPARATE CERAMIC SECTIONS—MEETS MIL-S-3786A

For use with PA-600 index assembly. Sections 1⁹⁄₃₂"., .125" thick across strut holes. Coin silver clips and contacts. Hot solder dipped terminals. Breakdown voltage between critical parts 1000v AC-RMS. Shipping weight, 1 ounce.

Shorting

Stock No.	Type	Total Poles	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
57F983	PA-80	1	2-11	1.98	1.65	1.49	1.42	1.32	1.19
57F984	PA-82	2	2-5						
57F985	PA-84	3	2-3						
57F986	PA-86	4	2						

Non-Shorting

Stock No.	Type	Total Poles	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
57F987	PA-81	1	2-11	1.98	1.65	1.49	1.42	1.32	1.19
57F988	PA-83	2	2-5						
57F989	PA-85	3	2-3						
57F990	PA-87	4	2						

HAM SWITCHES

Special switches designed for transmitters and receivers. Steatite sections 1⅝x1⅞'' dia. Phenolic shaft thru sections. Steel front shaft 1⅞'' lg. 60° indexing. Non-shorting contacts. With knob, nut and lockwasher. Shipping weight, 4 oz. per section.

No.	Type	Sec.	Total Poles	Pos. Pole	1-4	5-9	10-24	25-49	50-99	100-249
22F692	2550	1	1	2-6	2.37	1.98	1.78	1.69	1.58	1.42
22F693	2551	2	2	2-6	3.36	2.80	2.52	2.39	2.24	2.02
22F694	2552	3	3	2-6	4.32	3.60	3.24	3.08	2.88	2.59
22F695	2553	4	4	2-6	5.34	4.45	4.01	3.81	3.56	3.20
22F696	2554	5	5	2-6	6.30	5.25	4.73	4.49	4.20	3.78

Non-shorting types. 90° index. Steatite insul. 4 oz. per section.

No.	Type	Sec.	Poles	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F460	2542	1	1	2 to 4	2.37	1.98	1.78	1.69	1.58	1.42
22F461	2543	2	2	2 to 4	3.36	2.80	2.52	2.39	2.24	2.02
22F462	2544	3	3	2 to 4	4.32	3.60	3.24	3.08	2.88	2.59
22F463	2545	4	4	2 to 4	5.34	4.45	4.01	3.81	3.56	3.20
22F464	2546	5	5	2 to 4	6.30	5.25	4.73	4.49	4.20	2.78

SEPARATE ASSEMBLY HAM SWITCH INDEXES

Index features phenolic shaft through switch sections for high breakdown voltage. Includes knob, dial and hardware. 60° positions. Shipping wt., 3 oz.

No.	Type	For Switches	Shaft	1-4	5-9	10-24	25-49	50-99	100-249
22F646	P-273	1-2 Sec.	2"	1.38	1.15	1.04	.99	.92	.83
22F647	P-274	3-4 Sec.	4¼"	1.74	1.45	1.31	1.25	1.16	1.04
22F648	P-275	5-8 Sec.	7"	2.16	1.80	1.62	1.54	1.44	1.30
Same as P-273, 274, & 275 except 90° positions.									
22F656	P-278	1-2 Sec.	2"	1.38	1.15	1.04	.99	.92	.83
22F657	P-279	3-4 Sec.	4¼"	1.74	1.45	1.31	1.25	1.16	1.04
22F658	P-280	5-8 Sec.	7"	2.16	1.80	1.62	1.54	1.44	1.30

SEPARATE ASSEMBLY SECTION

For use with P-273, 274, 275 indexes.

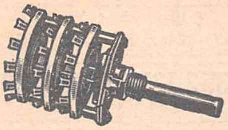
No.	Type	Poles	Positions	1-4	5-9	10-24	25-49	50-99	100-249
22F649	ZZD	1	2-6	1.20	1.00	.90	.86	.80	.72
For use with P-278, 279 and 280 indexes.									
22F659	XXD	1	2-6	1.20	1.00	.90	.86	.80	.72

DUAL SPEAKER SWITCH KIT

Type PK-300. Designed for rear seat auto radio speakers, but is adaptable to many other dual speaker applications. Contains switch, etched mounting bracket, dial plate, knob, mounting hardware and instructions. Shpg. wt., 10 oz.

22F799. 1-4......**1.05** 5-9......**.88** 10-24......**.79**
25-49........**.75** 50-99........**.70** .. 100-249........**.63**

MINIATURE CERAMIC ROTARY SWITCHES



PA-2000 switches with steatite insulation. New small size. 1½'' diameter gives saving of ⅜'' over standard switches. One piece shaft construction, adjustable stop allows selection of positions or continuous rotation; meet 25 hour salt spray tests. Complete or separate. Same ratings as larger 2500 series plus excellent RF characteristics. Shaft 1⅞'' from bushing. Frontal size only 1½ x 1⁵⁄₁₆''. Silver-plated contacts and adjustable stop. 30° indexing except † which are 60°. *All contacts shorted except that in use. ⅜"x32 bushing ⅜" long. Knob, nut and lockwasher. Shipping weight, 3 oz. per section.

SHORTING

No.	Type	Total Poles	Total Sec.	Pole Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F600	2000	1	1	2-12	2.37	1.98	1.78	1.69	1.58	1.42
22F602	2002	2	1	2-6	2.37	1.98	1.78	1.69	1.58	1.42
22F604	2004	2	2	2-12	3.39	2.83	2.55	2.42	2.26	2.03
22F606	2006	3	1	2-5	2.37	1.98	1.78	1.69	1.58	1.42
22F608	2008	3	3	2-12	4.32	3.60	3.24	3.08	2.88	2.59
22F610	2010	4	2	2-6	3.39	2.83	2.55	2.42	2.26	2.03
22F612	2012	4	4	2-12	5.19	4.33	3.90	3.71	3.46	3.11
22F614	2014	5	1	2-3	2.37	1.98	1.78	1.69	1.58	1.42
22F616	2016	5	5	2-12	6.21	5.18	4.66	4.43	4.14	3.73
22F618	2018	6	1	2	2.37	1.98	1.78	1.69	1.58	1.42
22F620	2020	6	2	2-5	3.39	2.83	2.55	2.42	2.26	2.03
22F622	2022	6	3	2-6	4.32	3.60	3.24	3.08	2.88	2.59
22F624	2024	6	6	2-12	7.20	6.00	5.40	5.13	4.80	4.32
22F626	2026	8	4	2-6	5.19	4.33	3.90	3.71	3.46	3.11
22F628	2028	9	3	2-5	4.32	3.60	3.24	3.08	2.88	2.59
22F630	2030	10	2	2-3	3.39	2.83	2.55	2.42	2.26	2.03
22F632	2032	10	5	2-6	6.21	5.18	4.66	4.43	4.14	3.73
22F634	2034	12	2	2	3.39	2.83	2.55	2.42	2.26	2.03
22F636	2036	12	6	2-6	7.20	6.00	5.40	5.13	4.80	4.32
22F638	2038	15	3	2-3	4.68	3.90	3.51	3.33	3.12	2.81
22F640	2040	18	3	2	4.68	3.90	3.51	3.33	3.12	2.81
22F642	*2042	1	1	2-10	2.16	1.80	1.62	1.54	1.44	1.30

NON-SHORTING

No.	Type	Total Poles	Total Sec.	Pole Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F601	2001	1	1	2-12	2.37	1.98	1.78	1.69	1.58	1.42
22F603	2003	2	1	2-6	2.37	1.98	1.78	1.69	1.58	1.42
22F605	2005	2	2	2-12	3.39	2.83	2.55	2.42	2.26	2.03
22F607	2007	3	1	2-5	2.37	1.98	1.78	1.69	1.58	1.42
22F609	2009	3	3	2-12	4.32	3.60	3.24	3.08	2.88	2.59
22F611	2011	4	2	2-6	3.39	2.83	2.55	2.42	2.26	2.03
22F613	2013	4	4	2-12	5.19	4.33	3.90	3.71	3.46	3.11
22F615	2015	5	1	2-3	2.37	1.98	1.78	1.69	1.58	1.42
22F617	2017	5	5	2-12	6.21	5.18	4.66	4.43	4.14	3.73
22F619	2019	6	1	2	2.37	1.98	1.78	1.69	1.58	1.42
22F621	2021	6	2	2-5	3.39	2.83	2.55	2.42	2.26	2.03
22F623	2023	6	3	2-6	4.32	3.60	3.24	3.08	2.88	2.59
22F625	2025	6	6	2-12	7.20	6.00	5.40	5.13	4.80	4.32
22F627	2027	8	4	2-6	5.19	4.33	3.90	3.71	3.46	3.11
22F629	2029	9	3	2-5	4.32	3.60	3.24	3.08	2.88	2.59
22F631	2031	10	2	2-3	3.39	2.83	2.55	2.42	2.26	2.03
22F633	2033	10	5	2-6	6.21	5.18	4.66	4.43	4.14	3.73
22F635	2035	12	2	2	3.39	2.83	2.55	2.42	2.26	2.03
22F637	2037	12	6	2-6	7.20	6.00	5.40	5.13	4.80	4.32
22F639	2039	15	3	2-3	4.68	3.90	3.51	3.33	3.12	2.81
22F641	2041	18	3	2	4.68	3.90	3.51	3.33	3.12	2.81
22F643	†2043	1	1	2-6	2.16	1.80	1.62	1.54	1.44	1.30
22F645	†2045	2	2	2-6	3.03	2.53	2.28	2.17	2.02	1.82

SEPARATE MINIATURE CERAMIC SECTIONS

Use with index assemblies PA-300, 301, 302 for assembly of special units of your own design. *Unused contacts one side of common connected and shorted out. †All unused contacts connected and shorted out. ‡Progressively shorting with clockwise rotation. **Progressive shorting with counter-clockwise rotation. ††60° indexing, use with PA-304 and 305 indexes. Wt., 3 oz.

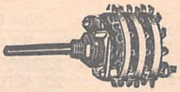
SHORTING

No.	Type	Pls.	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F660	PA-0	1	2-12	1.20	1.00	90c	86c	80c	72c
22F662	PA-2	2	2-6						
22F664	PA-4	3	2-5						
22F666	PA-6	5	2-3						
22F668	PA-8	6	2						
22F670*	PA-10	1	2-5						
22F671†	PA-11	1	2-11						
22F672‡	PA-12	1	2-10						
22F673**	PA-13	1	2-10						
22F674††	PA-20	1	2-6						

NON-SHORTING

No.	Type	Pls.	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F661	PA-1	1	2-12	1.20	1.00	90c	86c	80c	72c
22F663	PA-3	2	2-6						
22F665	PA-5	3	2-5						
22F667	PA-7	5	2-3						
22F669	PA-9	6	2						
22F679*	PA-19	1	2-5						
22F678†	PA-18	1	2-11						
22F677††	PA-17	1	2-6						

CRL SUB-MINIATURE STEATITE SWITCHES



Ultra small, ceramic insulated rotary switches. 1'' dia. Bushing ¼'' dia. x ¼" lg. Shaft ⅛" dia. x 1¼" lg. Silver plated clips and contacts. Fixed stop. 3.5 amp at 6 VDC or 160 ma at 110 VAC. Shipping wt., 2 oz. per sect.

SHORTING

No.	Type	Sec.	Total Poles	Pole Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F761	PS-100	1	1	11	4.80	4.00	3.60	3.42	3.20	2.88
22F762	PS-102	2	2	11	6.00	5.00	4.50	4.28	4.00	3.60
22F763	PS-104	1	2	5	4.80	4.00	3.60	3.42	3.20	2.88
22F764	PS-106	3	3	11	7.20	6.00	5.40	5.13	4.80	4.32
22F765	PS-108	1	3	3	4.80	4.00	3.60	3.42	3.20	2.88
22F766	PS-110	2	4	5	6.00	5.00	4.50	4.28	4.00	3.60
22F767	PS-112	1	4	2	4.80	4.00	3.60	3.42	3.20	2.88
22F768	PS-114	3	6	5	7.20	6.00	5.40	5.13	4.80	4.32
22F769	PS-116	2	6	3	6.00	5.00	4.50	4.28	4.00	3.60
22F770	PS-118	2	8	2	6.00	5.00	4.50	4.28	4.00	3.60
22F771	PS-120	3	9	3	7.20	6.00	5.40	5.13	4.80	4.32
22F772	PS-122	3	12	2	7.20	6.00	5.40	5.13	4.80	4.32

NON-SHORTING

No.	Type	Sec.	Total Poles	Pole Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F773	PS-101	1	1	11	4.80	4.00	3.60	3.42	3.20	2.88
22F774	PS-103	2	2	11	6.00	5.00	4.50	4.28	4.00	3.60
22F775	PS-105	1	2	5	4.80	4.00	3.60	3.42	3.20	2.88
22F776	PS-107	3	3	11	7.20	6.00	5.40	5.13	4.80	4.32
22F777	PS-109	1	3	3	4.80	4.00	3.60	3.42	3.20	2.88
22F778	PS-111	2	4	5	6.00	5.00	4.50	4.28	4.00	3.60
22F779	PS-113	1	4	2	4.80	4.00	3.60	3.42	3.20	2.88
22F780	PS-115	3	6	5	7.20	6.00	5.40	5.13	4.80	4.32
22F781	PS-117	2	6	3	6.00	5.00	4.50	4.28	4.00	3.60
22F782	PS-119	2	8	2	6.00	5.00	4.50	4.28	4.00	3.60
22F783	PS-121	3	9	3	7.20	6.00	5.40	5.13	4.80	4.32
22F784	PS-123	3	12	2	7.20	6.00	5.40	5.13	4.80	4.32

SEPARATE ASSEMBLY SECTION FOR SUB-MINIATURE SWITCHES

For use with shaft and index assemblies listed below. Carry same ratings as above switches. Shpg. wt., 2 oz.

SHORTING

No.	Type	Tot. Pls.	Pos. Pole	1-4	5-9	10-24	25-49	50-99	100-249
22F785	PS-20	1	2-11	2.10	1.75	1.58	1.50	1.40	1.26
22F786	PS-22	2	2-5						
22F787	PS-24	3	2-3						
22F788	PS-26	4	2						

NON-SHORTING

No.	Type	Tot. Pls.	Pos. Pole	1-4	5-9	10-24	25-49	50-99	100-249
22F789	PS-21	1	2-11	2.10	1.75	1.58	1.50	1.40	1.26
22F790	PS-23	2	2-5						
22F791	PS-25	3	2-3						
22F792	PS-27	4	2						

SHAFT AND INDEX ASSEMBLIES

Hardware for sub-miniature switches. Includes knob, spacers, tie rods, nuts, lockwashers, etc. Fixed stop. All designed to take up to three sections. Shipping weight, 2 oz.

No.	Type	Ind	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F681	P-501	30°	2	1.95	1.63	1.47	1.40	1.30	1.17
22F682	P-502	30°	3						
22F683	P-503	30°	4						
22F684	P-504	30°	5						
22F685	P-505	30°	6						
22F686	P-506	30°	7						
22F687	P-507	30°	8						
22F688	P-508	30°	9						
22F689	P-509	30°	10						
22F690	P-510	30°	11						
22F691	P-511	30°	con't						

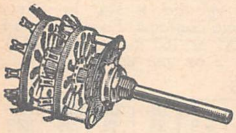
NOTE: NEWARK GIVES HIGHEST VOLUME DISCOUNTS! ORDER CENTRALAB COMPONENTS FOR YOUR PLANT OR SHOP FROM NEWARK FOR:

- FASTEST SERVICE
- LOWEST PRICES
- GREATEST DEPENDABILITY

ORDER FROM ANY OF NEWARK'S SEVEN HUGE WAREHOUSES WHEN YOU REQUIRE ANY CENTRALAB COMPONENT.

Centralab® SWITCHES

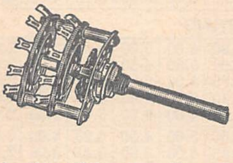
ROTARY SELECTOR SWITCHES — STEATITE INSULATION



Series 2500. Compact, efficient, shorting and non-shorting rotary selector switches. Low loss steatite wafers. Positive 30° index. Adjustable stop. Bushing ⅜"-32thd. ⅜" lg. Shaft ¼" full round 1⅞" from bushing. Dia. 1⅝"x1⅞". Rated 2.75 amps at 15 VDC, 230 ma. at 115 VAC. Breakdown voltage 1500 VAC. Includes pointer knob, nut and lockwasher. Shpg. wt., 4 oz. per section.

Shorting		Non-Short.		Tot.	Tot.	No.			10-	25-	50-	100-
Stk. No	Type	Stk. No.	Type	Pls.	Sec.	Pos.	1-4	5-9	24	49	99	249
22F400	2500	22F411	2501	1	1	2-6	2.82	2.35	2.12	2.01	1.88	1.69
22F401	2502	22F412	2503	1	1	2-11						
22F402	2504	22F413	2505	2	1	2-5						
22F403	2506	22F414	2507	3	1	2-3						
22F404	2510	22F415	2511	2	2	2-6	4.02	3.35	3.02	2.87	2.68	2.41
22F405	2512	22F416	2513	2	2	2-11						
22F406	2514	22F417	2515	4	2	2-5						
22F407	2516	22F418	2517	6	2	2-3						
22F408	2520	22F419	2521	3	3	2-6	5.16	4.30	3.87	3.68	3.44	3.10
22F409	2522	22F420	2523	3	3	2-11						
22F410	2524	22F421	2525	6	3	2-5						

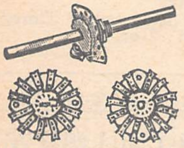
ROTARY SELECTOR SWITCHES — PHENOLIC INSULATION



Series 1400 offers compact design and quality construction. Laminated phenolic insulation. Mounting bushings ⅜ x 32thd. x ⅜" long. Shafts 1⅞" from end of bushing. Positive 30° index with adjustable stop. Size and current rating same as 2500 series. Breakdown voltage 1000 VAC. Includes pointer knob, nut and lockwasher. Shpg. wt., 4 oz. per section.

Shorting		Non-Short.		Tot.	Tot.	No.			10-	25-	50-	100-
Stk. No	Type	Stk. No.	Type	Pls.	Sec.	Pos.	1-4	5-9	24	49	99	249
22F422	1400	22F438	1401	1	1	2-6	2.52	2.10	1.89	1.80	1.68	1.51
22F423	1402	22F439	1403	1	1	2-11						
22F424	1404	22F440	1405	2	1	2-5						
22F425	1406	22F441	1407	3	1	2-3						
22F426	1408	22F442	1409	4	1	2						
22F427	1410	22F443	1411	2	2	2-6	3.06	2.55	2.30	2.19	2.04	1.84
22F428	1412	22F444	1413	2	2	2-11						
22F429	1414	22F445	1415	4	2	2-5						
22F430	1416	22F446	1417	6	2	2-3						
22F431	1418	22F447	1419	8	2	2						
22F432	1420	22F448	1421	3	3	2-6	3.90	3.25	2.93	2.78	2.60	2.34
22F433	1422	22F449	1423	3	3	2-11						
22F434	1424	22F450	1425	6	3	2-5						
22F435	1426	22F451	1427	4	4	2-6	4.50	3.75	3.38	3.21	3.00	2.70
22F436	1428	22F452	1429	4	4	2-11						
22F437	1430	22F453	1431	8	4	2-5						

SEPARATE STEATITE SECTIONS



Separate sections. Use with index assemblies P-270, P-271 and P-272, below to assemble switches with special characteristics. Special section PISD, one off position, nine progressively shorting positions. Sections NSD and PSD combine for resistance decade. Section QSD special for capacitance decade. Special sections GGD and FFD all unused contacts connected and shorted out. Shipping weight, 4 oz.

Shorting		Non-Short.						10-	25-	50-	100-
Stk. No.	Type	Stk. No.	Type	Poles	Pos.	1-4	5-9	24	49	99	249
22F482	TD	22F488	XD	1	2-6	1.35	1.13	1.02	.97	.90	.81
22F483	UD	22F489	YD	1	2-11						
22F484	RD	22F490	RRD	2	2-5						
22F485	SD	22F491	SSD	3	2-3						
22F486	VD	22F492	ZD	4	2						
22F495	PISD	22F538	FFD	See Text							
22F496	QSD	....	....	See Text							
22F493	NSD	....	....	See Text							
22F494	PSD	....	....	See Text							
22F487	GGD	....	....	See Text							

INDEX ASSEMBLIES

Use with above sections. Pos. 30° index, adjustable stop includes all hardware and knob. Shipping weight, 3 oz.

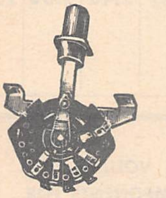
Stk. No.	Type	No. Sec.	1-4	5-9	10-24	25-49	50-99	100-249
22F540	P-270	1-3	1.65	1.38	1.24	1.18	1.10	.99
22F541	P-271	3-5	2.10	1.75	1.58	1.50	1.40	1.26
22F542	P-272	5-10	2.85	2.38	2.14	2.03	1.90	1.71

DIAL PLATES FOR ROTARY SWITCHES

These high quality dial plates were specially designed for use with all 30° index switches. They have a diameter of 1⅞ inches. Constructed of durable etched aluminum coated with wear resistant black enamel. Average shipping weight, 1 oz.

Stk. No.	Type	Marking	1-4	5-9	10-24	25-49	50-99	100-249
22F530	P-115	1-5	.22	.18	.16	.15	.14	.13
22F531	P-116	1-6						
22F532	P-117	1-10						
22F533	P-118	1-11						

ECONOMY LEVER ACTION SWITCHES



Switches have phenolic insulation, clips and contacts silver plated brass. Two hole type mounting bracket supplied with 4-40 thd tapped holes. *New 4 pos. switch—requires offset mtg. holes in panel. Supplied with knob and mounting hardware. Rated 2.75 amps at 15 VDC, 230 MA at 115 VAC. Shpg. wt. 4 oz.

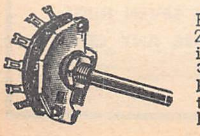
Shorting		Non-Short							10-	25-	50-	100-
Stk. No.	Type	Stk. No.	Type	Poles	Pos.	Index	1-4	5-9	24	49	99	249
57F938	7000	57F939	7001	2	3	Pos.	1.05	.88	.79	.75	.70	.63
57F940	7002	57F941	7003	2	3	S.R.	1.26	1.05	.95	.90	.84	.76
57F942	7004	57F943	7005	2	3	Pos&SR	1.26	1.05	.95	.90	.84	.76
57F944	7006	57F945	7007	2	4*	Pos.	1.05	.88	.79	.75	.70	.63
57F946	7008	57F947	7009	4	2	S.R.	1.26	1.05	.95	.90	.84	.76
57F948	7010	57F949	7011	4	2	Pos.	1.05	.88	.79	.75	.70	.63

LEVER SWITCH MOUNTING PLATES

For vertical mounting of single and multiple switch combinations. Provide ¾" spacing between switches. Black wrinkle. Shipping weight, 4 oz.

Stk. No.	Type	Sw.	Size	1-4	5-9	10-24	25-49	50-99	100-259
22F560	P-1755	1	¾x2⅝"	.30	.25	.23	.22	.20	.18
22F561	P-1756	2	1½x2⅝"						
22F562	P-1757	3	2¼x2⅝"						
22F563	P-1758	4	3 x2⅝"						

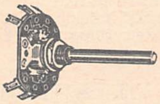
UNIVERSAL FLAT SWITCHES

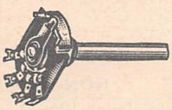


Rated 2.75 amps at 15 VDC, 230 ma at 115 VAC. Phenolic insulation. Bushing ⅜" dia., ⅜" lg. Shaft 1⅞" lg. from bushing. All non-shorting contacts. Includes knob, nut and lockwasher. 4 oz.

Stk. No.	Type	Poles	Pos.	Index	1-4	5-9	10-24	25-49	50-99	100-249
22F570	1450	4	2	Pos.	1.65	1.38	1.24	1.18	1.10	.99
22F571	1451	4	2	Pos. S. R.	1.98	1.65	1.49	1.42	1.32	1.19
22F543	1448	6	3	S. R.	2.37	1.98	1.78	1.69	1.58	1.42
22F544	1449	6	3	Pos. & S. R.	2.37	1.98	1.78	1.69	1.58	1.42

CRL GENERAL PURPOSE SWITCHES


1472


Type 1461

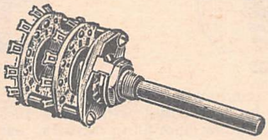
Type 1484

Rated 1.75 amps at 24 VDC, 230 ma at 115 VAC. Phenolic insulation. Bushing 3/8'' dia., 3/8'' lg. Shaft 1/4'' dia., 1 7/8'' from bushing, except No. 1484. Shpg. wt., 4 oz.

Type 1460. SPDT or SPST phonograph-radio switch. Positive index action. Shorting type contacts. Use as tone or sensitivity control. Type 1465 has AC-DPST line switch.

Stock No.	Type	Action	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F574	1460	SPDT SPST	....	1.08	.90	.81	.77	.72	.65
22F575	1461	SP	3	1.08	.90	.81	.77	.72	.65
22F576	1462	DPDT	....	1.08	.90	.81	.77	.72	.65
22F577	1463	SPDT	....	1.08	.90	.81	.77	.72	.65
22F578	1464	DPDT	....	1.08	.90	.81	.77	.72	.65
22F564	1465	SP	4	1.80	1.50	1.35	1.28	1.20	1.08
22F585	1472	DP	3	1.08	.90	.81	.77	.72	.65
22F586	1473	DP	3	1.08	.90	.81	.77	.72	.65
22F587	1483	SP	3	.75	.63	.57	.54	.50	.45
22F588	1484	SP	3	.90	.80	.72	.68	.60	.54

MINIATURE PHENOLIC ROTARY SWITCHES



PA-1000 switches with phenolic insulation. Same size as PA-2000 series ceramic switches. Rated 2.75 amps at 15 VDC, 230 ma. at 115 VAC. Breakdown voltage 1000 VAC. 30° positive index except * 60°. Adjustable stop. With knob, nut and lockwasher. + One off, 9 progressively shorting positions. 5 oz.

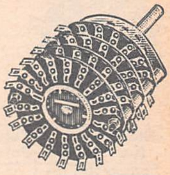
SHORTING

Stk. No.	PA Type	Tot. Pol.	No. Pos.	Sec.	1-4	5-9	10-24	25-49	50-99	100-249
22F800	1000	1	2-11	1	1.80	1.50	1.35	1.28	1.20	1.08
22F802	1002	2	2-5	1	1.80	1.50	1.35	1.28	1.20	1.08
22F804	1004	2	2-11	2	2.58	2.15	1.94	1.84	1.72	1.55
22F806	1006	3	2-3	1	1.80	1.50	1.35	1.28	1.20	1.08
22F808	1008	3	2-11	3	3.24	2.70	2.43	2.31	2.16	1.94
22F810	1010	4	2	1	1.80	1.50	1.35	1.28	1.20	1.08
22F812	1012	4	2-5	2	2.58	2.15	1.94	1.84	1.72	1.55
22F814	1014	4	2-11	4	3.81	3.18	2.86	2.72	2.54	2.29
22F816	1016	5	2-11	5	4.47	3.73	3.36	3.19	2.98	2.68
22F818	1018	6	2-3	2	2.58	2.15	1.94	1.84	1.72	1.55
22F820	1020	6	2-5	3	3.24	2.70	2.43	2.31	2.16	1.94
22F822	1022	6	2-11	6	5.04	4.20	3.78	3.59	3.36	3.02
22F824	1024	8	2	2	2.58	2.15	1.94	1.84	1.72	1.55
22F826	1026	8	2-5	4	3.81	3.18	2.86	2.72	2.54	2.29
22F828	1028	12	2	3	3.24	2.70	2.43	2.31	2.16	1.94
22F830	1030	10	2-5	5	4.47	3.73	3.36	3.19	2.98	2.68
22F832	1032	12	2-5	6	5.04	4.20	3.78	3.59	3.36	3.02
22F590	+1040	1	2-10	1	1.80	1.50	1.35	1.28	1.20	1.08

NON-SHORTING

Stk. No.	PA Type	Tot. Pol.	No. Pos.	Sec.	1-4	5-9	10-24	25-49	50-99	100-249
22F801	1001	1	2-11	1	1.80	1.50	1.35	1.28	1.20	1.08
22F803	1003	2	2-5	1	1.80	1.50	1.35	1.28	1.20	1.08
22F805	1005	2	2-11	2	2.58	2.15	1.94	1.84	1.72	1.55
22F807	1007	3	2-3	1	1.80	1.50	1.35	1.28	1.20	1.08
22F809	1009	3	2-11	3	3.24	2.70	2.43	2.31	2.16	1.94
22F811	1011	4	2	1	1.80	1.50	1.35	1.28	1.20	1.08
22F813	1013	4	2-5	2	2.58	2.15	1.94	1.84	1.72	1.55
22F815	1015	4	2-11	4	3.81	3.18	2.86	2.72	2.54	2.29
22F817	1017	5	2-11	5	4.47	3.73	3.36	3.19	2.98	2.68
22F819	1019	6	2-3	2	2.58	2.15	1.94	1.84	1.72	1.55
22F821	1021	6	2-5	3	3.24	2.70	2.43	2.31	2.16	1.94
22F823	1023	6	2-11	6	5.04	4.20	3.78	3.59	3.36	3.02
22F825	1025	8	2	2	2.58	2.15	1.94	1.84	1.72	1.55
22F827	1027	8	2-5	4	3.81	3.18	2.86	2.72	2.54	2.29
22F829	1029	12	2	3	3.24	2.70	2.43	2.31	2.16	1.94
22F831	1031	10	2-5	5	4.47	3.73	3.36	3.19	2.98	2.68
22F833	1033	12	2-5	6	5.04	4.20	3.78	3.59	3.36	3.02
22F835	*1035	1	2-6	1	1.80	1.50	1.35	1.28	1.20	1.08
22F837	*1037	2	2-6	2	2.58	2.15	1.94	1.84	1.72	1.55

PA-3000 SERIES 18 POSITION SWITCH



PA-3000. High quality laminated phenolic insulation meets MIL-P-3115B. Voltage breakdown between parts 1000 VAC. Sections 2 5/16" highx2 11/64" wide, 1/16" thick. Rated 5.5 amp at 6 VDC; 2.75; 15VDC; 1.75 amp at 24VDC; 230 ma at 115VAC. Adjustable stop or continuous rotation. Wt., 4 oz.

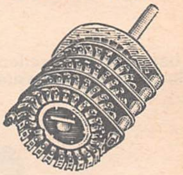
SHORTING

Stk. No.	Type	Pol.	Pos.	Sec.	1-4	5-9	10-24	25-49	50-99	100-249
57F922	PA-3000	1	2-17	1	2.04	1.70	1.53	1.45	1.36	1.22
57F924	PA-3002	2	2-17	2	2.94	2.45	2.21	2.09	1.96	1.76
57F926	PA-3004	3	2-17	3	3.84	3.20	2.88	2.74	2.56	2.30
57F928	PA-3006	4	2-17	4	4.68	3.90	3.51	3.33	3.12	2.81

NON-SHORTING

Stk.No.	Type	Pol.	Pos.	Sec.	1-4	5-9	10-24	25-49	50-99	100-249
57F923	PA-3001	1	2-17	1	2.04	1.70	1.53	1.45	1.36	1.22
57F925	PA-3003	2	2-17	2	2.94	2.45	2.21	2.09	1.96	1.76
57F927	PA-3005	3	2-17	3	3.84	3.20	2.88	2.74	2.56	2.30
57F929	PA-3007	4	2-17	4	4.68	3.90	3.51	3.33	3.12	2.81

PA-4000 SERIES 24-POSITION PHENOLIC SWITCH



High quality laminated phenolic insulation, meets MIL-P-3115B. Sections; 2 5/16"H, 1 3/4"W, 1/16" thick. Rating same as PA-3000 series. Shpg. wt., 4 oz.

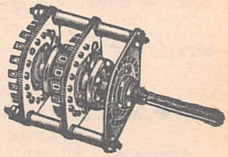
SHORTING

Stk.No.	Type	Pol.	Pos.	Sec.	1-4	5-9	10-24	25-49	50-99	100-249
57F930	PA-4000	1	2-23	1	2.16	1.80	1.62	1.54	1.44	1.30
57F932	PA-4002	2	2-23	2	3.18	2.65	2.39	2.27	2.12	1.91
57F934	PA-4004	3	2-23	3	4.17	3.48	3.13	2.97	2.78	2.50
57F936	PA-4006	4	2-23	4	4.98	4.15	3.74	3.55	3.32	2.99

NON-SHORTING

57F931	PA-4001	1	2-23	1	2.16	1.80	1.62	1.54	1.44	1.30
57F933	PA-4003	2	2-23	2	3.18	2.65	2.39	2.27	2.12	1.91
57F935	PA-4005	3	2-23	3	4.17	3.48	3.13	2.97	2.78	2.50
57F937	PA-4007	4	2-23	4	4.98	4.15	3.74	3.55	3.32	2.99

HEAVY DUTY ROTARY POWER SWITCHES



Handles Up to 9 Amps at 110 VAC Series JV-9000. Steatite insulation—9 amps at 110 VAC, 30 amps at 5 VDC, .015 amps at 2500 VAC. 20° indexing adjustable stop, coin silver contacts. Mtg. bushing 3/8''-32thd.x 3/8'' long. 2 13/16'' diameter. Shipping weight, 6 oz. per section. Breakdown voltage 3000 VAC RMS.

SHORTING

Stk. No.	Type	Tot. Pol.	Tot. Sec.	No. Pos.	1-4	5-9	10-24	25-49	50-99
22F731	9000	1	1	2-17	10.50	8.75	7.88	7.49	7.00
22F732	9032	2	1	2-8	10.50	8.75	7.88	7.49	7.00
22F733	9004	2	2	2-17	17.40	14.50	13.05	12.40	11.60
22F734	9002	3	1	2-5	10.50	8.75	7.88	7.49	7.00
22F735	9008	3	3	2-17	24.30	20.25	18.23	17.32	16.20
22F736	9034	4	2	2-8	17.40	14.50	13.05	12.40	11.60
22F737	9012	4	4	2-17	31.20	26.00	23.40	22.23	20.80
22F738	9016	5	5	2-17	38.10	31.75	28.58	27.15	25.40
22F739	9006	6	2	2-5	17.40	14.50	13.05	12.40	11.60
22F740	9036	6	3	2-8	24.30	20.25	18.23	17.32	16.20
22F741	9020	6	6	2-17	45.30	37.75	33.98	32.28	30.20
22F742	9038	8	4	2-8	31.20	26.00	23.40	22.23	20.80
22F743	9010	9	3	2-5	24.30	20.25	18.23	17.32	16.20
22F744	9014	12	4	2-5	31.20	26.00	23.40	22.23	20.80
22F745	9018	15	5	2-5	38.10	31.75	28.58	27.15	25.40

NON-SHORTING

22F746	9001	1	1	2-17	10.50	8.75	7.88	7.49	7.00
22F747	9033	2	1	2-8	10.50	8.75	7.88	7.49	7.00
22F748	9005	2	2	2-17	17.40	14.50	13.05	12.40	11.60
22F749	9003	3	1	2-5	10.50	8.75	7.88	7.49	7.00
22F750	9009	3	3	2-17	24.30	20.25	18.23	17.32	16.20
22F751	9035	4	2	2-8	17.40	14.50	13.05	12.40	11.60
22F752	9013	4	4	2-17	31.20	26.00	23.40	22.23	20.80
22F753	9017	5	5	2-17	38.10	31.75	28.58	27.15	25.40
22F754	9007	6	2	2-5	17.40	14.50	13.05	12.40	11.60
22F755	9037	6	3	2-8	24.30	20.25	18.23	17.32	16.20
22F756	9021	6	6	2-17	45.30	37.75	33.98	32.28	30.20
22F757	9039	8	4	2.8	31.20	26.00	23.40	22.23	20.80
22F758	9011	9	3	2-5	24.30	20.25	18.23	17.32	16.20
22F759	9015	12	4	2-5	31.20	26.00	23.40	22.23	20.80
22F760	9019	15	5	2-5	38.10	31.75	28.58	27.15	25.40

SWITCHES AND ASSEMBLIES

CENTRALAB PHENOLIC SECTIONS AND INDEX ASSEMBLIES

SEPARATE MINIATURE PHENOLIC SECTIONS

Use with Index Assemblies PA-300, 301, 302 for assembly of special units of your own design and spacing. *All unused contacts one side of common connected and shorted out. †All unused contacts connected and shorted out. ‡Active contacts all shorted to common contact in full CCW progressively opened and dropped with CW rotation. PA-45 is 60° indexing section, use with PA-304, 305 indexes. Shpg. wt., 2 oz.

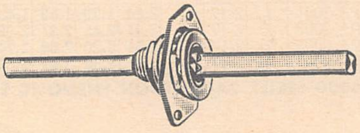
SHORTING

Stock No.	Type	Total Poles	Indexing	Positions	1-4	5-9	10-24	25-49	50-99	100-249
22F840	PA-30	1	30°	2-11	.87	.73	.66	.63	.58	.52
22F842	PA-32	2	30°	2-5						
22F844	PA-34	3	30°	2-3						
22F846	PA-36	4	30°	2						
22F848	PA-38*	1	30°	2-5						
22F850	PA-40†	1	30°	2-11						
22F852	PA-43‡	1	30°	2-10						

NON-SHORTING

Stock No.	Type	Total Poles	Indexing	Positions	1-4	5-9	10-24	25-49	50-99	100-249
22F841	PA-31	1	30°	2-11	.87	.73	.66	.63	.58	.52
22F843	PA-33	2	30°	2-5						
22F845	PA-35	3	30°	2-3						
22F847	PA-37	4	30°	2						
22F849	PA-39*	1	30°	2-5						
22F851	PA-41†	2	30°	2-11						
22F853	PA-45	1	60°	2-6						

MINIATURE INDEX ASSEMBLIES



Use with PA sections to assemble switches for special units. Includes all hardware and knob. Shipping weight. 3 oz.

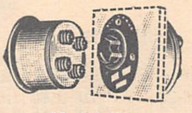
30° Indexing

Stock No.	Type	For Switches	Shaft	1-4	5-9	10-24	25-49	50-99	100-249
22F650	PA-300	1 to 3 sec.	2"	1.38	1.15	1.04	.99	.92	.83
22F651	PA-301	4 to 6 sec.	4"	1.80	1.50	1.35	1.28	1.20	1.08
22F652	PA-302	7 to 9 sec.	6"	2.37	1.98	1.78	1.69	1.58	1.42

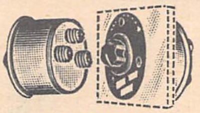
60° Indexing

Stock No.	Type	For Switches	Shaft	1-4	5-9	10-24	25-49	50-99	100-249
22F654	PA-304	1 to 3 sec.	2"	1.44	1.20	1.08	1.03	.96	.86
22F655	PA-305	4 to 6 sec.	4"	1.89	1.58	1.42	1.35	1.26	1.13
22F680	Type P-320 Intersection shield			.22	.18	.16	.15	.14	.13

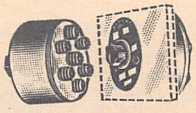
WATERS COAXIAL SWITCHES



Model 336



Model 335



Model 341

Designed for panel mounting, featuring in-line orientation of the coaxial connectors. Switches occupy a minimum amount of space for ready access in connecting and disconnecting. Compact and easy to insall, they provide an efficient and convenient switching technique while enhancing the neatness and appearance of an installation. 1000 watts power carrying capacity. VSWR: less than 1.1 up to 150 mc. Internal construction: ceramic with silver plated conductors. Negligible insertion loss. Designed for mounting behind a panel with three 10-32 screws. Hardware supplied includes: mounting screws, escutcheon plate with provision for erasable markings and knob. Size: overall length 2½", 3¼" dia.; escutcheon plate, 3½" dia., fits on panels up to ⅛" thick. Shpg. wt., 1 lb.

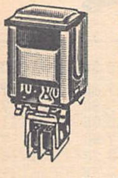
Model 336 Coaxial Transfer. For switching a power amplifier in and out between an exciter and antenna, etc. 4 UF(SO-239) connectors.
97F915. NET........................ **11.45**

Model 335 Coaxial Selector Switch. For switching of RF sources, antennas, etc. Single pole-six position switch. 7 UHF(SO-239) connectors.
97F916. NET........................ **12.95**

Model 341 Antenna Transfer Switch. For switching of an RF device to either of two antennas: two to one; etc. SPDT switch. 3 UHF(SO-239) connectors.
97F917. NET........................ **11.45**

CONTROLS COMPANY OF AMERICA

● *NEW* M-SERIES SWITCHLITE



Designed to be fool-proof. All parts fit together only one way . . . the right way. New 4-lamp front relamping, front mounting switchlite will add compactness and versatility to a control panel. Features: 4 independent MS flange base lamps, common-ground lamp circuit for independent or multiple lamp lighting. Silicon rubber color filters replace without removing lamp. Mounts from front of any panel .020 to .250 thick. Mounts in single cut-out, one-piece legend plate is keyed; won't reverse. Pushbutton can't jam. Translucent white button lights up completely or in colored quarters or vertical or horizontal halves. Different switch modules snap on and off rear of housing to let you select 2PDT or 4PDT switches with momentary, alternate, or solenoid-held action. Three switch configurations: medium power (fine silver contacts for up to 5 amperes, @ 28V). Omit switch module for indicator light use only Less lamps.

COMPONENT PARTS

Stk. No.	Type	Description	1-24	25-99	100-499	500-999
Body						
23F475	M1	Indicator Light	7.10	6.39	5.82	5.25
23F476	1117-635	Plunger Stop for above	.50	.45	.41	.37
23F477	4M1	Solenoid Pushbutton	15.10	13.59	12.38	11.17
Lens						
23F478	046161	Solid Lens	1.00	.90	.82	.74
23F479	046162	Vertical Split Lens	1.50	1.35	1.23	1.11
23F480	046163	Horizontal Split Lens	1.50	1.35	1.23	1.11
23F481	127241	Seal for above lens	2.00	1.80	1.64	1.48
Filters						
23F482	664176	Blue Color Filter	.30	.27	.25	.22
23F483	664177	Green Color Filter				
23F484	664178	Amber Color Filter				
23F485	664179	Red Color Filter				
23F486	664180	Light Blue Color Filter				
Switches						
23F487	A4-301	DPDT Mom. Switch	3.50	3.15	2.87	2.59
23F488	A4-302	4PDT Mom. Switch	8.25	7.43	6.77	6.11
23F489	A4-309	DPDT Alt. Act. Switch	5.25	4.73	4.31	3.89

Bulbs For Use With Above

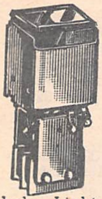
Stk. No.	Type	Description	EACH	10 for	100 for
25F122	327	28 volts, 0.04 amps	.90	5.50	49.50
25F123	328	6 volts, 0.20 amps	.70	4.28	38.52

Dry circuit (gold diffused on fine silvered contacts for .025 ohms max contact resistance); and hermetically-sealed (for highest reliability) available on Special Order. Write for prices on Assembled Switches and Lens Engraving.

NEWARK'S seven giant warehouses allow immediate delivery from over 70,000 items of on-the-shelf stock. Look to NEWARK as your one-point source.

CONTROL SWITCH DIVISION CC

SNAP-ACTION SWITCHES



Type C6. Lighted push button switches and indicators. Combine lighting, legend and electrical control in one compact unit. Save panel space, simplify operation. Units can be stacked or mounted individually on control panels or consoles. Plastic push button is available in colors, can be hot stamped with words or symbols. Light is provided by two separate 6 or 28 volt lamps wired in parallel. Switching component is DPDT, rated at 5 amps, 125V AC or 4 amps, 30V DC, resistive each pole. Either alternate action (push on, push off) or momentary action is available. Unit is also available without switch for use as pilot light. Two lamps included with each unit. Solid plastic or two piece plastic button with clear slip in insert for legend. Overall size: 2 7/16x1x1". All C6 units supplied less plastic buttons and barrier strips. Shpg. wt., 30 oz.

LIGHTED PUSH BUTTON SWITCHES AND INDICATORS

Stk. No.	Switch No.	Description	1-24	25-99	100-499
23FX854	C6-52-22	Momentary Switch Action, 6V Lamps	9.10	8.19	7.46
23FX857	C6-56-22	Momentary Switch Action, 28V Lamps	9.90	9.27	8.12
23FX855	C6-53-22	Alt. Action (Push-Push) 6V Lamps	11.20	10.08	9.18
23FX858	C6-57-22	Alt. Action (Push-Push) 28V Lamps	12.10	10.89	9.92
23FX853	C6-50-22	Pilot Light Duty, 6V Lamps	4.75	4.27	3.89

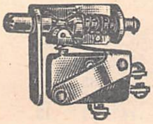
BUTTONS AND MOUNTING BARRIERS FOR ABOVE

Stk. No.	Switch No.	Description	1-24	25-99	100-499
23FX859	1117-229-BB	Solid Blue Button	.50	.45	.41
23FX860	1117-229-GG	Solid Green Button			
23FX861	1117-229-RR	Solid Red Button			
23FX862	1117-229-WW	Solid White Button			
23FX863	1117-229-YY	Solid Yellow Button			
23F878	1117-SA19-11B	2 piece Blue Button			
23F879	1117-SA19-11G	2 piece Green Button			
23F880	1117-SA19-11R	2 piece Red Button			
23F882	1117-SA19-11W	2 piece White Button			
23F881	1117-SA19-11Y	2 piece Yellow Button			
23FX864	1117-SA19-4	Mounting Barrier (2 per unit)	.75	.68	.62

Note: Order buttons and mounting barriers separately.

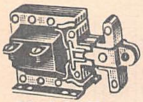
Stk. No.	Switch No.	Description	1-24	25-99	100-499
23FX869	S144-2	6V Replacement Lamp	.60	.54	.49
23FX870	S145-2	28V Replacement Lamp	1.00	.90	.82

TYPE C2 INTERLOCK SERIES

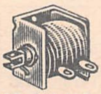


C2 Series interlock switches conform to AN3234-1, MS-25253-1. Units have a temperature range of —100° to +275°F with positive overtravel stop. Elec. life rating 150,000 ops. @ 10 amps 125/250 VAC, 60 cycles. Type C2-5 is single pole push momentary pull to maintain.

Stock No.	Type	1-9	10-19	20-49	50-99	100-199	200-499
23FX851	C2-5	2.75	2.48	2.20	1.93	1.79	1.73



Model 801



Model 860

Model 750-150

Model 750-250

Model 750-251

Model 700

DOUBLE T SOLENOIDS

Coil windings and terminals are imbedded in a heavy shock resistant layer of epoxy. Zinc dichromatic finish. Sturdy one piece construction. Sizes: Types 801, 1 3/16x1⅝x1½"; Types 812-101 thru 812-103-, 1 13/16x2½x2"; Other types 812, 2 1/16x2½x2"; Types 821, 2⅜x2⅞x2 15/16"; Types 860, 1 3/16x1 9/32x1 3/32". 1¼ lbs.

For operation of 120V., 60 cycles

Stock No.	Type	Max. Stroke	Max. Pull	1-9	10-24	25-49	50-99	100-249
24F1600	801-101	⅝"	5 lbs.	4.33	3.90	3.68	3.04	2.60
24F1601	801-102*	⅝"	6½ lbs.	4.33	3.90	3.68	3.04	2.60
24F1603	812-101	1 1/16"	11 lbs.	5.76	5.19	4.90	4.04	3.46
24F1604	812-102*	1 1/16"	13 lbs.	5.71	5.14	4.86	4.00	3.43
24F1606	813-101	1 1/16"	13 lbs.	6.00	5.40	5.10	4.20	3.59
24F1607	813-102	1 1/16"	15.9 lbs.	5.95	5.36	5.06	4.16	3.57
24F1609	821-101	1⅜"	15 lbs.	8.36	7.53	7.11	5.85	5.02
24F1610	821-102*	1⅜"	24 lbs.	7.40	6.66	6.28	5.15	4.44
24F1612	860-101	⅜"	1¾ lbs.	3.00	2.70	2.55	2.10	1.80
24F1613	860-102*	⅜"	3 lbs.	3.00	2.70	2.55	2.10	1.80

For operation of 230V., 60 cycles. Shpg. wt., 1¼ lbs.

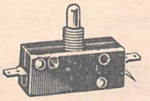
Stock No.	Type	Max. Stroke	Max. Pull	1-9	10-24	25-49	50-99	100-249
24F1602	801-103	⅝"	5 lbs.	4.53	4.08	3.86	3.18	2.72
24F1605	812-103	1 1/16"	13 lbs.	5.97	5.38	5.07	4.18	3.58
24F1608	813-103	1 1/16"	13 lbs.	6.35	5.72	5.41	4.45	3.81
24F1611	821-103	1 1/16"	13 lbs.	9.33	8.40	7.94	6.54	5.60

*Duty is intermittent, others are continuous.

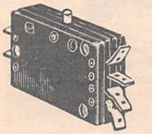
MAKE NEWARK A ONE POINT SOURCE FOR ALL YOUR ELECTRONIC NEEDS

NEWARK speeds your project by off-the-shelf supply of over 70,000 items in current demand.

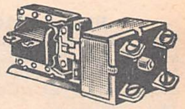
NEWARK saves you time and money by permitting your placing one purchase order . . . instead of dozens.



Model 750-350



Model 755



Model 12270

TYPE 750 SNAP ACTION SWITCHES

Instantaneous, positive make and break action. High contact pressure. Nonsensitive to vibration and shock. Stable under momentary high overload. 15 amp 125v AC; 10 amp 250v AC; ½hp 125/250v AC. Case: molded phenolic. Listed by Underwriters' Laboratories, Inc. Sizes: Type 750, 1⅞x2 5/32x1 9/32". Type 755, 1⅞x1⅛x1 9/32". Shpg. wt., 4 oz.

Stock No.	Type	Description	Total Trav.	Oper. Press	1-9	10-24	25-49	50-99
24F1625	750-150	Pin Plunger SPDT	3/32" to ⅛"	6 to 8 oz	.79	.71	.64	.57
24F1626	750-250	Lever Action SPDT	7/32" to 9/32"	4 to 9 oz	.89	.80	.72	.66
24F1627	750-251	Lever Action SPDT	17/32" to ¾"	4 to 6.5 oz	.95	.85	.77	.69
24F1628	750-350	Panel Mount SPDT	¼" to ⅜"	6 to 13 oz	1.11	1.00	.90	.81
24F1629	755-150	Double Circuit DPDT Pin Plunger	3/32" to 5/32"	10 to 26 oz	1.71	1.54	1.37	1.20

SOLENOID-OPERATED SWITCH

Makes and breaks two circuits at the same time. A compact unit, consisting of a totally enclosed, normally open DPST switch, actuated by a CC TT type with encapsulated coil. High contact pressure assures a minimum millivolt drop. Heavy copper contacts. Actuator gives powerful, dependable stroke. Switch: 25 amp 125-250V A.C. Size: 3¾"x1 7/16"x2 1/16". Shpg. wt., 1 lb.

Stk. No.	Type	60 cycle	1-9	10-24	25-49	50-99	100-249
24F1614	2J12270	110 V.	5.30	4.83	4.56	3.76	3.22
24F1615	2K12270	220 V.	5.48	4.93	4.66	3.84	3.28

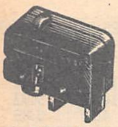
TIME DELAY SWITCH

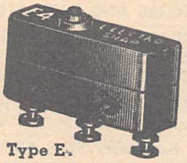
Type 700-150 Time Delay Switch. Gives positive make and break action. Time delay is pneumatically controlled. Nonsensitive to vibration and shock. Variable—3 to 40 sec. Rating: 10 amp 250v AC; 10 amp 125v AC; ⅓hp 125/250v AC. Listed by Underwriters' Laboratories, Inc. Size: 2 31/32x3 3/16" dia. Shpg. wt., 5 oz.

Stk. No.	Circuit	Travel	Press.	1-9	10-24	25-49	50-99	100-199
24F1637	SPDT	11/64" to 13/64"	1½ lbs.	5.10	4.59	4.08	3.57	3.32

CONTROL SWITCH DIVISION **CC**

ELECTROSNAP SWITCHES


Type T

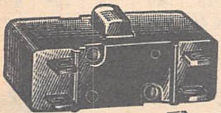

Type E4

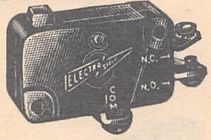
SUB-SUB-MINIATURE BASIC SWITCH

Type T. High current capacity in tiny case. UL rated at 7.5 amps, 125/250V AC. 7.5 amps, 30 V DC resistive, 3 amps, 30V DC inductive. 4 switches to inch when stacked side by side. Mount with minimum hardware. Excellent shock and vibration characteristics. Supplied less actuator. .526Lx.250Wx.323H. 1 oz.

SUB-MINIATURE BASIC SWITCH

Type E4. Ideal for compact electronic equipment. Low movement differential and operating force gives precision control in critical applications. Can be stacked and gang mounted. Basic switch supplied less actuators. Meets MIL specs. MS-25085 and is UL listed for 5 amps. 125/250V AC. Also handles 4 amps, 30V DC resistive. Supplied less actuator. Size: 25/32"x1/4"x23/64". Shpg. wt., 1 oz.


Type G

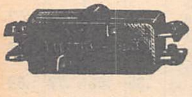

Type F

HIGH CAPACITY SWITCH

Type G. High electrical capacity basic switch. Recommended for precision control of power circuits. Handles 40 amps at 125/250 V AC. Case size: 1 3/4"x43/64"x 35/64". Shpg. wt., 1 oz.

MINIATURE BASIC SWITCH

Type F. Low cost precision switch that conforms to MIL-S-6743 and AN3234 specs. Rugged design—positive overtravel stop protects mechanism. Easily mounted. Conveniently located terminals simplify wiring. Basic switch supplied less actuator. 10 amps, 125/250V AC, 28V DC resistive, 6 amps, 30 V DC inductive. Size: 1 3/32"x1 3/32"x5/8". Shpg. wt., 1 oz.


Type S

Type D

2-CIRCUIT BASIC SWITCH

Type S. Combines high capacity, small size and long life with extreme accuracy. Good for power circuits as well as precision control applications. Meets MIL specs. Several models UL approved. Rated at 10,000,000 operations minimum at full load, tested to 30,000,000. Reset model maintains circuit until reset button actuated, can be used as inexpensive two-way limit switch. Basic switches supplied less actuator. 10 amps, 125/250V AC / 30V DC inductive. Size: 1 1/4"x1/2"x 1/2". Shpg. wt., 1 oz.

4- & 6-CIRCUIT BASIC SWITCH

Types D and K. DP and TP high capacity basic switches permit simultaneous switching of multiple circuits and precision control of three phase motors. Reset model maintains circuit until reset button is actuated. Can be used as inexpensive two way limit switch. Basic switches supplied less actuators. 15 amps 125/250V AC / 15 amps 30 V DC resistive, 10 amps 30V DC inductive. Type D size: 1/2"x1 1/4"x7/8". Type K size: 1/2"x 1 1/4"x1 5/16". Shpg. wt., 1 oz.

TYPE T SUB-SUB-MINIATURE SWITCH

Stk. No.	Type	Description	1-9	10-19	20-49	50-99	100-199	200-499
23FX823	T-3	SPDT Basic Switch Solder Term.	2.00	1.80	1.60	1.40	1.30	1.26
23FX849	A5-71	Flat Leaf Actuator for T Switches	.20	.18	.16	.14	.13	.13
23FX850	A5-73	Roller Leaf Actuator for T Switches	.50	.45	.40	.35	.33	.32

TYPE E4 SUB-MINIATURE SWITCH

Stk. No.	Type	Description	1-9	10-19	20-49	50-99	100-199	200-499
23FX810	E4-103	SPDT Basic Switch Solder Terms.	1.50	1.35	1.20	1.05	.98	.95
23FX811	E4-110	SPDT Basic Switch Turret Terms.	1.50	1.35	1.20	1.05	.98	.95
23FX815	A3-42-103*	SPDT Maintained Toggle 1/4 Bush	3.49	3.14	2.79	2.44	2.27	2.20
23FX816	A4-86-103*	DPDT Push Button Momentary 15/32 Bushing	6.10	5.49	4.88	4.27	3.97	3.84
23FX817	A4-87-103*	DPDT Push Button (Push-Push) 15/32 Bushing	7.40	6.66	5.92	5.18	4.81	4.66
23FX844	A5-9	Leaf Actuator for E4 Switches	.20	.18	.16	.14	.13	.13
23FX845	A5-10	Roller Leaf Actuator for E4 Switches	.50	.45	.40	.35	.33	.32

TYPE G HIGH ELECTRICAL CAPACITY

Stk. No.	Type	Description	1-9	10-19	20-49	50-99	100-199	200-499
23FX818	G3-4	SPDT Basic Switch Solder Terms.	3.45	3.11	2.76	2.42	2.24	2.17

TYPE F MINIATURE SWITCH

Stk. No.	Type	Description	1-9	10-19	20-49	50-99	100-199	200-499
23FX822	F2-13	SPDT Basic Switch Screw Term.	1.00	.90	.80	.70	.65	.63
23FX847	A5-47	Roller Leaf Actuator	.40	.36	.32	.28	.26	.25
23FX848	A5-49	Leaf Actuator	.20	.18	.16	.14	.13	.13

TYPE S 2-CIRCUIT SWITCH

23FX800	S1-4	SPDT Basic Switch End Solder Terms.	1.40	1.26	1.12	.98	.91	.88
23FX801	S1-304	Reset Basic Model SPDT End Solder Term.	1.65	1.49	1.32	1.16	1.07	1.04
23FX802	S2-4	SPDT Basic Switch End Screw Term.	1.50	1.35	1.20	1.05	.98	.95
23FX804	S3-4	SPDT Momen., Side Solder Terminals	1.47	1.32	1.18	1.03	.96	.93
23FX803	S2-304	Reset Basic Model, SPDT End Screw Term.	1.75	1.58	1.40	1.23	1.14	1.10
23FX838	A2-2	Roller Lever Actuator for S Series Switches	.80	.72	.64	.56	.52	.50
23F885	A4-1/S2-2	SPNO Screw Term. Switch with Spring Loaded Plunger (15/32" bushing)	2.55	2.30	2.04	1.79	1.66	1.61
23FX805	A4-1/S1-4*	Push Button 15/32 Bush. Solder Term.	2.40	2.16	1.92	1.68	1.56	1.51
23FX841	A4-102	1" dia. Push Button Bracket for D, K, and S Switches	3.50	3.15	2.80	2.45	2.28	2.21
23FX842	A5-5	Roller Leaf Actuator for S Switches	.40	.36	.32	.28	.26	.25
23FX843	A5-7	Extended Leaf Actuator for S Switches	.50	.45	.40	.35	.33	.32

Note: Solder ferm. basic Type S1-4 and screw term. basic Type S2-4 are interchangeable on various actuators.

TYPES D AND K SWITCHES AND ACTUATOR

Stk. No.	Type	Description	1-9	10-19	20-49	50-99	100-199	200-499
23FX820	D8-4	DPDT Front Solder Term.	6.25	5.63	5.00	4.38	4.06	3.94
23FX821	D8-308	Reset Model Front Solder Term.	6.75	6.08	5.40	4.73	4.39	4.25
23FX819	K3-4	TPDT Front Solder Term.	7.45	6.71	5.96	5.22	4.84	4.69
23FX841	A4-102	1" Plastic Push-button Bracket for D, K, and S Switches	3.50	3.15	2.80	2.45	2.28	2.21
23FX839	A2-5	Roller Lever for D and K Switches	1.05	.95	.84	.74	.68	.66
23FX840	A4-2	Long Over Trvl. Push-button for D and K Switches	2.00	1.80	1.60	1.40	1.30	1.26
23FX846	A5-18	Extension Leaf for D and K Switches	.75	.68	.60	.53	.49	.47
23FX806	A4-24-1/ D8-4*	4 ckt. Basic Switch with Push-button (15/32" bushing) DPDT	7.96	7.16	6.37	5.57	5.17	5.01
23F884	A2-7	Short Roller Lever for D and K.	1.65	1.49	1.32	1.16	1.07	1.04
23F867	D4-4	DPDT Std. Side Solder Term.	6.25	5.63	5.00	4.38	4.06	3.94

***Denotes switch and actuator combination ordered as a set.**

TYPE ES4 LIMIT SWITCHES

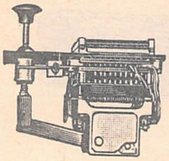
When plunger is depressed, switch completes electrical circuit during pre-set section of travel ("On" period), but does not make circuit on return stroke. 10 amp, 125/250V AC. Size: 2" (plus plunger length) x1 1/32"x2 3/16". Shpg. wt., 4 1/2 oz.

Stk. No.	Switch No.	Over-travel	On Time	Action	1-19	20-49	50-99	100-499
23FX826	ES4-K	7/16" Min.		Std. Basic Splash Proof Limit Switch	9.50	8.55	8.07	7.60
23FX833	ES4-NM1	1/4" Min.	1/16"	Impulse Action Lmt. Sw.	9.50	8.55	8.07	7.60
23FX834	ES4-NM2	3/16" Min.	1/8"	Impulse Action Lmt. Sw.	9.50	8.55	8.07	7.60
23FX835	ES4-NM3	1/8" Min.	3/16"	Impulse Action Lmt. Sw.	9.50	8.55	8.07	7.60
23FX836	ES4-NM4	1/16" Min.	1/4"	Impulse Action Lmt. Sw.	9.50	8.55	8.07	7.60
23FX827	ES4-KM1	3/8" Min.	1/16"	Imp. Action Lmt. Sw. w/Splash Prf. Boot	10.50	9.45	8.93	8.40
23FX828	ES4-KM2	5/16" Min.	1/8"	Imp. Action Lmt. Sw. w/Splash Prf. Boot	10.50	9.45	8.93	8.40
23FX829	ES4-KM3	1/4" Min	3/16"	Imp. Action Lmt. Sw. w/Splash Prf. Boot	10.50	9.45	8.93	8.40
23FX830	ES4-KM4	3/16" Min.	1/4"	Imp. Act. Lmt. Sw. w/Boot	10.50	9.45	8.93	8.40
23FX831	ES4-KM6	1/16" Min.	3/8"	Imp. Act. Lmt. Sw. w/Boot	10.50	9.45	8.93	8.40

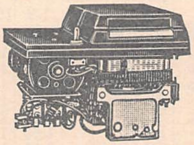
All switches momentary contact type except where otherwise noted

CARD READERS—SWITCHES

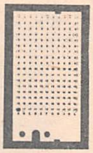
HICKOK CARDMATIC CARD READERS



Manual operated Card Reader. The practical method for handling complex data in programming. automatic inspection, production control and computer work.



• NEW Motorized Card Reader. Similar to the manual model except with 1/20 h.p. motor and speed reducer. Developed because of many requests of design engineers.



A pre-punched code card is inserted into the unit to operate a momentary trip mechanism to actuate all desired contacts simultaneously.

• Proven in Complicated Electronic Tests • Quick, Easy Operation
• Safe and Foolproof • Available in both manual and motorized models

BASIC MANUAL MODEL

Manual Model 906-003. The Manual cardmatic multiple switch is a self-actuating type mechanism built around 186 self-cleaning, wiping-type switches. Has been tested to over 100,000 operations. 10 amp current carrying capacity and .005 ohm nominal (contact-to-pin-to-contact) and .0025 ohms nominal (contact-to-pin-only) contact resistance, makes the manual cardmatic applicable where automatic and reliable multiple switching arrangements require flexibility with low loss of current carrying capacity. 186 single pole, single throw floating contacts are housed in a sandwich design. 12.6x10^{56} possible switching combinations. Allows 186 individual connections to contacts of bottom plate. Connection to 60 top contacts is the normal maximum to simplify wiring. A pre-punched 3x5" modular card is inserted into the machine to operate a momentary control solenoid trip mechanism to actuate all desired contacts simultaneously. The code cards are punched on the basis that absence of a hole provides a contact actuation. Switch jamming is eliminated and card alignment is assured because the machine is actuated only when the card is in the proper position. An unlimited switching arrangement can be accomplished through multiple grouping of the base switch. The cardmatic is safe and foolproof because if the switch is actuated without a card no contact will be made. A spring loaded cam with the solenoid circuit provides the necessary actuation. 6⅞"Wx7 13/16"Lx4⅝"D. Black Enamel Finish. Weight: 5 lbs.

62F104. NET..**298.00**

• NEW MOTORIZED MODEL

Model 908-001. The motorized cardreader is similar in most respects to the manual model. The motorized model substitutes a 1/20th H.P. Universal type, 5000 RPM motor equipped with a single reducer with a 15.1 reduction ratio. Closing of a toggle switch and insertion of a card will acuate all 185 contacts, both top and bottom. Extra circuit capability makes it applicable to remote control operations. Power supply: 115V, 60c., 100 w. Max. 6⅞x7 13/16x4⅝". Black enamel finish. Weight, 8 lbs.

62F105. NET..**495.00**

MASTER CARD PUNCH

Model CP-10. Master Card Punch is designed to produce quick, accurate punching of programming cards used in the Hickok Cardmatic Card Readers. As many as 186 holes may be punched simultaneously with one swift, sure pull of the operating lever. Precision machine pins and die blocks assure cleanly punched holes, without burrs, every time. Set-up of the required pattern is accomplished merely by removing pins from the positions where holes are not desired. Then, a quick insertion of the card blank, an easy pull of the operating lever and another code card is ready for use. The punch is engineered for long years of operation under rugged conditions. Pins are self storing and the unit is completely self-contained and can be bench mounted. Dimensions: 6"Dx9"Wx5 1/16"H. Operating Lever Length: 15". Mounting: four ¼" lag bolts or mounting screws. Shipping weight: 32 lbs.

62F107. NET..**450.00**

Card blanks for CP-10 Cardpunch, .015" white rubberized vinyl. 3x5⅝".

Stock No.	Type	50	100	500	1000	2000	5000
62F108	3122-122	6.60	12.00	50.00	90.00	140.00	300.00

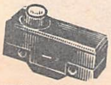
Model 100-547. Chrome plated Hand type punch with 50 blank cards imprinted with hole positions. Shipping wt., 3 lbs.

62F109. NET..**20.00**

Blank cards imprinted with hole position for Model 100-537 Hand Type Punch.

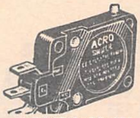
Stock No.	Type	50	100	500	1000	2000	5000
62F110	3122-99	7.50	14.00	60.00	110.00	160.00	350.00

ACRO SNAP-ACTION SWITCHES



BRD2-70-1S

S/F-RD-7PN-1S



1CMD1-2AXX

Model RD, K, and XO switches are 1 15/16" L. x 29/32" H. x 11/16" W. Model S/F RD switches are dust and oil tight enclosed for either flange or side mounting, the enclosure is 3" L. x 1 25/32" H. x 1" W. 260 Series subminiature switches are 25/32" L. x 23/64" H. x ¼" W. Model 3D nut switch is 15/16" dia. x 2 1/32" L. overall. MD & CM coin switches are 1⅝" L. x .825" H. x 9/32" W. All are U.L. approved. Approx. shpg. wt. 1 lb.

Stock No.	Type	Amps 125VAC	Oper. Press. (oz.)	Description	Action	1-9	10-19	20-49	50-99
23F401	BRD2-70-1S	15	4-13	Short Plunger	SPDT	1.95	1.78	1.56	1.37
23F402	BRD2-5L-1S	15	1½-5	Flat Leaf	SPDT	1.95	1.78	1.56	1.37
23F404	BRD2-1P-1S	15	4-13	Panel Mt. Plun.	SPDT	3.55	3.20	2.49	2.84
23F405	RD-10-1S	15	4-13	Long Plunger	SPDT	1.95	1.78	1.56	1.37
23F406	BRD2-LW8-1S	15	½-2½	Long Leaf	SPDT	2.00	1.80	1.60	1.40
23F407	BRD2-2M-1S	15	½-5	Roller Leaf	SPDT	2.25	2.03	1.80	1.58
23F409	BRD2-LW228-1S	15	1½-6	Short Hinged	SPDT	2.50	2.25	2.00	1.75
23F423	RD-2M	15	5	Roller Leaf	SPDT	2.15	1.94	1.72	1.51
23F422	KLB-5002	20	30	Hinged Leaf	SPDT	1.75	1.50	1.34	1.17
23F410	S/F-RD-7PN-1S	15	4-24	Sealed Plunger	SPDT	1.70	5.45	4.89	4.24
23F411	S/F-RD-6PQ-1S	15	4-13	Overtravel Plgr.	SPDT	6.05	4.19	3.72	3.26
23F412	S/F-RD-8PQ-1S	15	6-18	Roller Lever	SPDT	4.65	7.38	6.56	5.74
23F413	S/F-BRD2-8PR-1S	15	4-13	Roller Plunger	SPDT	8.20	7.29	6.48	5.67
23F417	3DO5-5P-2T	12	4-5	Panel Mt. Plgr.	SPDT	8.10	1.54	1.37	1.20
23F415	ICMD1-2AXX	3	12-27 (g)	Pin Plunger	SPNO	1.45	1.31	1.16	1.02
23F416	ICMD1-2AXX-A24	3	2½ (g)	Flat Leaf	SPDT	1.75	1.54	1.37	1.20
23F426	2CMD1-2AXX	3	15-44 (g)	Pin Plunger	SPDT	1.45	1.31	1.16	1.02
23F427	2CMD1-2AXX-A24	3	4 (g)	Flat Leaf	SPDT	1.75	1.54	1.37	1.20
23F432	2MC3-1A	10	1½-6	Pin Plunger	SPDT	1.45	1.31	1.16	1.02
23F414	1MD1-1A	10	3-10	Pin Plunger	SPDT	1.45	1.31	1.16	1.02
23F428	2MD1-1A	10	3-10	Pin Plunger	SPDT	1.45	1.31	1.16	1.02
23F425	3MD1-1A	10	4-16	Pin Plunger	SPDT	1.45	1.31	1.16	1.02
23F429	A-18	Flat	Leaf	Side Mt. Actuator		.40	.36	.32	.28
23F430	A-18M	Roller	Leaf	Side Mt. Actuator		.60	.54	.48	.42

Operating Pressure: In ounces except (g)—grams. Indicates minimum and maximum pressures.

Make Newark your one point source for all your electronic needs. Newark speeds your project by off-the-shelf supply of over 70,000 items in current demand. Newark saves you money by placing your one purchase order at Quantity Prices competitive with the manufacturer.

LICON SWITCHES

Div. Illinois Tool Works

BASIC SWITCHES

Type 10 highly sensitive basic switch utilizes one piece mechanism, eliminates fatigue, assures long life, excellent repeatability. No pivot points means high vibration resistance and positive snap action. Wide choice of actuators available. 1" mounting centers rated 15 amperes 125, 250 or 460V AC. ½ ampere at 115 volts DC. Size: 2"x1"x 1 1/16".

Type 11 is a high capacity two circuit basic switch. Double break mechanism with wiping action prevents teasing and "dead break". Surpasses government specifications. Rated 10 amperes at 125 volts AC. Over 20 million operations. Reset switches available in all terminal styles. 1¼"x½"x½".

TWO CIRCUIT SWITCH

Type 14 is a new heavy duty industrial limit switch. Uses double break mechanism for high electrical rating. Nylon operating button eliminates drift in operating point. Well spaced electrical terminals. 20 amps at 110/220/460 VAC. 1¾" x¾"x¾".

SUBMINIATURE SWITCH

Type 16 Licon Switch is a 2 circuit subminiature rated 10 amps 250 VAC or 30VDC. Size: 25/32"x7/16" x¼". Double break mechanism tested over 20 million cycles. Exceptional shock and vibration resistance.

FOUR CIRCUIT SWITCH

Type 22 switch features DPDT high current interruption. Vibration resistance — over 25 G's @ 2000 cps. Life—10,000,000 cycles. Self lubricating nylon button. Double bearing guide. Wiping action. Dust proof case. Beryllium copper switch blades.

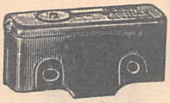
DIECAST ENCLOSED SWITCH

Type 30 offers high versatility with few switch components. Oil tight seal without external boots. Superior mounting., Variety of infinitely adjustable actuators. Perfect for industrial control, limit, and safety applications. Aluminum diecast housing provides a rugged enclosure, adequate wiring room, ½"-14 internal tap conduit hub. Rated 15 amperes, 125/250/460 VAC., ½ ampere 115 VDC 3"x1"x2½"

Note: All switches listed are single pole, double throw, momentary contact type, with screw terminals, except for 10-111, and where indicated.

TYPE 10 BASIC SWITCHES—SPDT

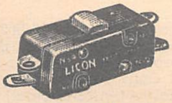
Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
23F150	10-111	Pin Plunger .010" gap	BZ-R19	1.70	1.53	1.36	1.19	1.105
23F151	10-122	Pin Plunger .020" gap	BZ-2RT	1.50	1.35	1.20	1.05	.975
23F152	10-124	Pin Plunger .040" gap	BZ-3RT	1.50	1.35	1.20	1.05	.975
23F153	10-127	Pin Plunger .070" gap	BZ-R31	1.50	1.35	1.20	1.05	.975
23F154	10-222	Spring Plunger	BZ-2RST	1.90	1.71	1.52	1.33	1.235
23F155	10-322	Panel Mount Plunger	BZ-2RLT	3.20	2.88	2.56	2.24	2.08
23F156	10-422	Leaf Spring	BZ2RLT	1.60	1.44	1.28	1.12	1.04
23F157	10-522	Roller Leaf Spring	BZ-2RL2T	2.10	1.89	1.68	1.47	1.37
23F158	10-622	Pivoted Lever		1.90	1.71	1.52	1.33	1.235
23F159	10-722	Pivoted Roller Lever	BZ-2RW82T	2.35	2.12	1.88	1.65	1.53
23F160	10-822	Compact Plunger	BZ-RDT	1.90	1.71	1.52	1.33	1.235
23F181	10-922	Roller Plunger	BZ-2RQ18T	5.60	5.04	4.48	3.92	3.64



Type 10

TYPE 11 TWO CIRCUIT BASIC SWITCH

23F161	11-104	End Solder Terminal	1TB1-2	1.45	1.31	1.16	1.02	0.943
23F162	11-204	End Screw Terminal	1TB1-1	1.55	1.40	1.24	1.09	1.008
23F163	11-304	Side Solder Terminal	1TB1-3	1.52	1.37	1.22	1.06	0.988
23F164	11-114	Reset-End Solder Term.		1.65	1.49	1.32	1.16	1.073
23F165	11-214	Reset-End Screw Term		1.75	1.58	1.40	1.23	1.138



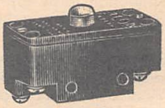
Type 11

AUXILIARY ACTUATORS FOR TYPE 11

23F168	70-104	Rigid Roller Lever		.80	.72	.64	.56	.52
23F169	70-201	Overtravel Plunger		1.25	1.13	1.00	.88	.793
23F170	70-301	Spring Lever	JT-1	.20	.18	.16	.14	.13
23F171	70-302	Spring Roller Lever	JT-5	.60	.54	.48	.42	.39

TYPE 14 HEAVY DUTY TWO CIRCUIT SWITCH—SPDT

23F178	14-12403	Basic Switch		2.90	2.61	2.32	2.03	1.885



Type 14

TYPE 16 SUBMINIATURE TWO CIRCUIT BASIC SWITCH—SPDT

23F179	16-104	End Solder Terminal		2.00	1.80	1.60	1.40	1.30
23F182	16-304	Side Solder Terminal		2.25	2.03	1.80	1.58	1.463
23F183	16-404	Bottom Solder Term		2.25	2.03	1.80	1.58	1.463
23F184	16-114	Reset-End Solder Term		2.25	2.03	1.80	1.58	1.463
23F187	16-504	Bottom Taper Tab		2.25	2.03	1.80	1.58	1.463

AUXILIARY ACTUATORS FOR TYPE 16 SWITCHES

Stk. No.	Type	Description	1-9	10-19	20-49	50-99	100-199
23F188	70-120	Rigid roller lever	.90	.81	.72	.68	.585
23F189	70-121	Rigid lever	.50	.45	.40	.35	.175
23F190	70-320	Spring lever	.35	.32	.28	.25	.168
23F191	70-321	Spring roller lever	.75	.68	.60	.53	.488

Type 16

TYPE 22 FOUR CIRCUIT BASIC SWITCH

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
23F185	22-304	DPDT Side Solder Term	41TB5-3	4.70	4.23	3.76	3.29	3.055

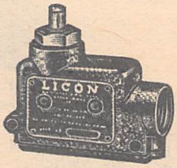
AUXILIARY ACTUATORS FOR TYPE 22 SWITCHES

Stk. No.	Type	Description	1-9	10-19	20-49	50-99	100-199
23F192	70-115	Rigid lever	.50	.45	.40	.35	.175
23F193	70-116	Rigid roller lever	1.00	.90	.80	.70	.65
23F194	70-208	Overtravel plunger	1.50	1.35	1.20	1.05	.995

Type 22

TYPE 30 DIECAST ENCLOSED SWITCH

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
23F172	30-200	Sealed Plunger	BZE-2RN BZV-2RN	5.70	5.13	4.56	3.99	3.705
23F173	30-400	Adjustable Sealed Roller Arm	BZE-2RN2 BZV-2RN2	9.35	8.42	7.48	6.55	6.08
23F174	30-600	Sealed Palm Button	BZE-2RN4	9.85	8.87	7.85	6.90	6.373
23F175	30-100	Overtravel Plunger	BZE-2RQ BZV-2RQ	4.60	4.14	3.68	3.22	2.99
23F176	30-300	Adjustable Roller Lever	BZE-2RQ2	8.25	7.43	6.60	5.78	5.363
23F177	30-500	Roller Plunger	BZE-2RO8 BZV-2RO8 BZE-2RQ81 BZV-2RQ81 BZE-2RQ9 BZV-2RQ9	8.25	7.43	6.60	5.78	5.363
23F186	30-030	Diecast Term Encl.	3PA1, 3PA2	1.75	1.58	1.40	1.23	1.14

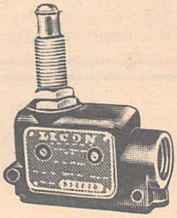


Type 30

ONE WAY IMPULSE SWITCH

Impulse switch provides electrical control for solenoid valves and starter relays. Greatly simplifies control circuits by eliminating the need of one-way dogs, interlocks, or delay devices. Unique actuating mechanism and high capacity basic switch assure long life and excellent repeatability. Sealed diecast housing permits panel, side or vertical mounting. Operates as follows, on the downward stroke the plunger actuates the switch momentarily, resets it and then overtravels. The plunger returns to the free position without further actuation of the basic switch. Has adequate wiring space and a standard conduit receptacle. Made of hardened stainless steel. SPST. Electrical Rating: 15A, 125/250/460 VAC 15A Res., 5A Ind., 5A Motor, 30 VDC. Size: 3½"x1"x3¾".

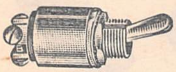
Stk. No.	Mfg.	On Time	Overtravel	Oper. Force	1-9	10-19	20-49	50-99	100-199
23F198	30-200301	1/16"	3/8"	3 lbs.	16.50	14.85	13.20	11.55	10.73
23F199	30-200302	1/8"	5/16"	3.5 lbs.	16.50	14.85	13.20	11.55	10.73



30-200301

LICON SERIES 65, 04 & 01 CAN BE SUPPLIED BY NEWARK

TOGGLE SWITCHES



Small size, light weight, and dependability. Snap action types use an exceptionally positive beryllium mechanism that positively cannot be teased on or off contact. Allows higher ratings in smaller size switches. One-piece, firmly anchored contacts and terminals are of brass or copper with a heavy laminated overlay of silver. T1002 and T1003 are $\frac{3}{4}$" dia. x 2$\frac{9}{32}$" long with screw terminals. T2104 is $\frac{15}{32}$" dia. x 1$\frac{9}{32}$" long with sold. lug terminals. T3103 is $\frac{11}{32}$" dia. x 1$\frac{9}{32}$" long with sold. lug terminals. Shpg. wt., 2 oz.

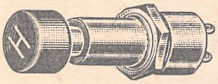
Stk. No.	Type	Description	1-9	10-19	20-49	50-99	100-199	200-499
25FX292	T1002	On-Off 40 amps at 28 VDC SPST (MIL-S-6745)	2.85	2.57	2.28	2.00	1.85	1.80
25F225	T1003	Hvy. duty, 20 amps at 28 VDC; SPDT (MIL-S-6745)	3.22	2.90	2.58	2.25	2.09	2.03
25F226	T2104	Miniature 2 cir. 10 amp at 28 VDC; (JAN-S-23)	3.94	3.55	3.15	2.76	2.56	2.48
25F227	T3103	Submin., 5 amp at 28 VDC; SPDT	4.06	3.65	3.25	2.84	2.64	2.56

PUSH BUTTON SWITCHES

Series W100 switches are designed for military aircraft and can be subjected to over 50G shock and 20G vibration at 5 to 2000 cps. without contact chatter. Rated at 10 amps at 28VDC. All switches have black buttons except * have red buttons. All have flanges except †. Switches other than W100 series are UL approved. Designed to MIL-S-6743. Drawing MS-25089. Mom. Con. Shpg. wt., 2 oz.

Stk. No.	Type	Description	1-9	10-19	20-49	50-99	100-199	200-499
25F241	W102P3R*	SP-ST (N.C.)	4.83	4.35	3.86	3.38	3.14	3.04
25F231	MS25089-3C	2-circuit W103PB6	3.80	3.42	3.04	2.66	2.47	2.39
25F230	MS25089-3D	2-circuit W103UB6	3.80	3.42	3.04	2.66	2.47	2.39
25F258	MS25089-4G	3-term (NO) W104PAB6	3.80	3.42	3.04	2.66	2.47	2.39
25F249	W104PB3	3-term (NO)	5.43	4.89	4.35	3.80	3.53	3.42
25F250	W104PB3R*	3-term (NO)	5.43	4.89	4.35	3.80	3.53	3.42
25F244	MS25089-4C	3-term (NO) W104PB6	3.80	3.42	3.04	2.60	2.47	2.39
25F254	MS25089-4CR	3-term (NO) W104PB6R*	3.80	3.42	3.04	2.66	2.47	2.39
25F252	W105PD3R*	3-term (NC)	5.43	4.89	4.35	3.80	3.53	3.42
25F255	MS25089-5C	3-term (NC) W105PB6	3.80	3.42	3.04	2.66	2.47	2.39
25F256	MS25089-5CR	3-term (NO) W105PB6R*	3.80	3.42	3.04	2.66	2.47	2.39
25F236	B2001†	Normally O.	2.09	1.88	1.67	1.46	1.36	1.32
25F237	B2002†	Normally C.	2.09	1.88	1.67	1.46	1.36	1.32
25FX279	C100PB4	SPST (NO)	3.76	3.38	3.01	2.63	2.44	2.37
25F233	C100P3	SPST (NO)	3.76	3.38	3.01	2.63	2.44	2.37
25F232	C200P3	2-circuit	4.36	3.92	3.49	3.05	2.83	2.75
25F234	C1006†	SPST (NO)	3.01	2.71	2.41	2.11	1.96	1.90
25F235	C2006†	2-circuit	3.61	3.25	2.89	2.53	2.35	......
25F294	C31006	SPST	3.01	2.71	2.41	2.11	1.96	1.90
25F229	J100	SPST Push on-off	6.63	5.97	5.30	4.64	4.31	2.27

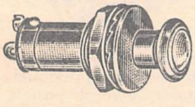
NON-SNAP COMPUTER SWITCH



Type B5023. Developed for keyboards of calculators, computers, etc. Smooth, silent, non-snap action. Removable plastic pushbutton may be engraved with letter. Slim, anodized aluminum case. "2-circuit" Lug terminals. Rating: 3 amps. (resistive) @ 30v dc. Minimum life is 500,000 operations @ rated load. Operating pressure is $\frac{1}{2}$ pound. Button travels a quarter of an inch. Size: 1$\frac{29}{32}$" long. Shpg. wt., 2 oz.

Stk. No.	Type	1-9	10-19	20-49	50-99	100-199	200-499
25F238	B5023	3.78	3.40	3.02	2.65	2.46	2.38

SWITCHLITE



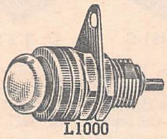
Exclusive Control Switch design combines heavy-duty, snap-action pushbutton switch with miniature indicator light in one compact assembly. Takes no more space than conventional switches alone. Lights are built into plastic pushbutton type lenses that unscrew for easy bulb replacement. White translucent lenses. SPST 10 amps at 28 volts d.c. Isolated lamp with 327 bulb. Wt., 2 oz.

Stk. No.	Type	Color	Description	1-24	25-49	50-99	100-199	200-499
25F206	A300R	Red	Push on- Pull off	7.52	6.77	6.02	5.26	4.89
25FX269	A300G	Green		7.52	6.77	6.02	5.26	4.89
25FX270	A300AM	Amber		7.52	6.77	6.02	5.26	4.89
25FX271	A300W	White		7.52	6.77	6.02	5.26	4.89

INDICATOR LIGHTS

Tiny, rugged indicator and warning lights meet the stringent humidity, shock and vibration requirements of commercial and military aircraft. Lenses are firmly molded to a threaded metal collar easily removed front for lamp replacement. All lights use AN3140 midget flange base lamps. Furnished with 28 volt lamp.

TYPE L1000

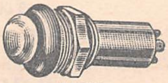


L1000

1-Terminal, flange-type, grounded case mounting in 1$\frac{3}{32}$" panel hole. Removable insulating bushings, spacers, and ground terminal also supplied for non-grounded panel mounting in $\frac{1}{2}$" hole. Assembled in a nickel-plated brass case. Integrally molded into assembly. $\frac{9}{16}$" dia. x 1$\frac{5}{16}$" long with 327 bulb. Shpg. wt., 2 oz.

Stock No.	Type	Color	1-9	10-19	20-49	50-99	100-199	200-499
25F204	L1000R	Red	2.85	2.57	2.28	2.00	1.85	1.80
25FX212	L1000AM	Amber	2.85	2.57	2.28	2.00	1.85	1.80
25FX213	L1000BL	Blue	2.85	2.57	2.28	2.00	1.85	1.80
25FX209	L1000G	Green	2.85	2.57	2.28	2.00	1.85	1.80
25FX210	L1000W	White	2.85	2.57	2.28	2.00	1.85	1.80

TYPE L3000

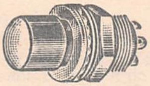


L3000

Moisture-proof, "Press-to-Test" Lamp can be "tested" by pressing on spring-mounted lens to make contact thru a separate 3rd terminal circuit. Moisture proofed by silicone rubber sleeve under lens. Lamp circuits completely insulated from aluminum case. Mounting: flange type with $\frac{1}{2}$" hole. Nut and lockwasher supplied. $\frac{5}{8}$" dia. x 1$\frac{25}{32}$" long. With 327 bulb. Shipping weight, 2 ounces.

Stock No.	Type	Color	1-9	10-19	20-49	50-99	100-199	200-499
25F202	L3000R	Red	4.95	4.46	3.96	3.47	3.22	3.12
25FX221	L3000AM	Amber	4.95	4.46	3.96	3.47	3.22	3.12
25FX222	L3000BL	Blue	4.95	4.46	3.96	3.47	3.22	3.12
25FX223	L3000G	Green	4.95	4.46	3.96	3.47	3.22	3.12
25FX224	L3000W	White	4.95	4.46	3.96	3.47	3.22	3.12

TYPE L3200



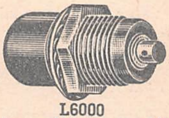
L3200

Wide-Angle, "Press-to-Test." Same operation as L3000, but in miniature size and with wide-angle lens for maximum visibility. May also be used in edge lit aircraft panels. 1$\frac{9}{32}$" dia. x 1$\frac{23}{64}$" long. Mounting: standard flange type $\frac{1}{2}$" diameter hole. With 327 bulb. Shipping weight. 2 ounces.

Stock No.	Type	Color	1-9	10-19	20-49	50.99	100-199	200-499
25F203	L3200R	Red	3.87	3.48	3.10	2.71	2.52	2.44
25FX265	L3200AM	Amber	3.87	3.48	3.10	2.71	2.52	2.44
25FX266	L3200BL	Blue	3.87	3.48	3.10	2.71	2.52	2.44
25FX267	L3200G	Green	3.87	3.48	3.10	2.71	2.52	2.44
25FX268	L3200W	White	3.87	3.48	3.10	2.71	2.52	2.44

INDICATOR LIGHTS

TYPE L6000



L6000

Subminiature indicator light. Wide-Angle, 1-Terminal. Light is "piped" thru entire periphery of long plastic lens assuring easy visibility from any angle. May also be used in edge-lit aircraft panels. Mounts in a 1$\frac{3}{32}$" hole by means of a flange. $\frac{1}{2}$" dia. x 1$\frac{1}{64}$" long. With 327 bulb. Shpg. wt., 2 oz.

Stock No.	Type	Color	NET
25F200	L6000R	Red	1.48
25FX214	L6000AM	Amber	
25FX215	L6000BL	Blue	
25FX216	L6000G	Green	
25FX217	L6000W	White	

TYPE L6600

L6600

Subminiature indicator light. Wide-Angle, 2-Terminal. Lamp circuit insulated. Lens similar to Type L6000. Lamps extend well into lens for uniform illumination. Lightweight anodized aluminum housing. $\frac{5}{8}$" dia. x 1$\frac{11}{64}$" long. With 327 bulb. 2 oz.

Stock No.	Type	Color	NET
25F201	L6600R	Red	1.48
25FX218	L6600AM	Amber	
25FX219	L6600BL	Blue	
25FX220	L6600G	Green	
25FX211	L6600W	White	

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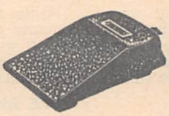
LINEMASTER FOOT SWITCHES

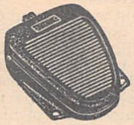
A. 4141-D

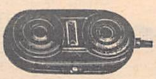

B. 121-S

C. 491-S

D. B-2-S

E. T-51-S


F. 632-S


G. L-2-S

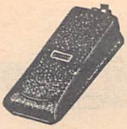

H. 476-S

Fig. A. Model 4141-D. Leave both hands free. Just press lightly with your foot or knee. You can mount this DPST single phase switch on a wall or on the side of a bench. Maintained contact unit. Precision-built for long life. Rated 20 amps. AC or DC, 125 to 250 v 1 horsepower. 4x7x3¼". Shpg. wt., 6 lbs.
24F160. 1 to 9.......... **10.00**
10 to 19..........**9.00** 20 to 49..........**8.00**

Model 4141-D1. Switch interior repl. for above.
24F172. 1 to 9..........**3.68**
10 to 19..........**3.31** 20 to 49..........**2.94**

Model 4141-S. Momentary contact.
24F164. 1 to 9..........**10.80**
10 to 19..........**9.72** 20 to 49..........**8.64**

Model 4141-S1. Switch interior repl. for above.
24F173. 1 to 9..........**4.35**
10 to 19..........**3.92** 20 to 49..........**3.68**

Fig. B. Model 121-S. A momentary contact switch for lightest pressure contact. Can be used as Single Pole, normally open or closed, or as an SPST. 15 Amps at 115-220 V. 5½x3¼x1¼. 1 lb.
24F161. 1 to 9.......... **8.25**
10 to 19..........**7.43** 20 to 49..........**6.60**

Fig. C. Model 491-S. Many industrial and commercial uses for this small, compact, and lightweight SPDT switch. Precision-made for accurate operation and sturdily built for long life. Steel housing. Skid-proof rubber base pad. Less cord and plug. Ratings: 10 amps. at both 115 v. and 230 v. Wt., 7 oz.
24F165. 1 to 9.......... **3.25**
10 to 19..........**2.93** 20 to 49..........**2.60**

Model 491SC. As above but with plug and 6-ft. cord.
24F162. 1 to 9..........**4.75**
10 to 19..........**4.38** 20 to 49..........**3.80**

Model 491-S1. Replacement interior for above.
24F174. 1 to 9..........**1.60**
10 to 19..........**1.44** 20 to 49..........**1.28**

Fig. D. The Executive. B-2-S. Two Switches in one using the teeter-totter principle to operate only one circuit at a time. SPDT. 15 Amps at 125-250 Volts. 4x4⅝x1⅛". Shpg. wt., 14 oz.
24F169. 1 to 9..........**7.50**
10 to 19..........**6.75** 20 to 49..........**6.00**

Fig. E. The Treadlite. A small, yet versatile and rugged foot switch designed to give instantaneous and accurate control at low amperage loads. Less cord and plug set. 5 Amps at 110-250 Volts. 3½x2⅝x1". Shipping weight, 8 oz.

Model T-51-S. Single pole, double throw, momentary contact only. Can be used normally open or closed, as desired.
24F163. 1 to 9..........**2.75**
10 to 19..........**2.48** 20 to 49..........**2.20**
24F175. T-51-S1. Replacement interior for T-51-S. 1 to 9..........**.75**
10 to 19..........**.68** 20 to 49..........**.60**

Model T-52-S. Has interiors so constructed and positioned that a partial downward stroke of the treadle actuates one interior and either opens or closes a circuit. Continued heavier pressure will either open or close a second circuit. Both are SPDT.
24F167. 1 to 9..........**4.65**
10 to 19..........**4.19** 20 to 49..........**3.72**

Fig. F. The Clipper. A rugged Unit designed for continued operation under heavy loads. Rated 20 Amps at 125-250 Volts. SPDT. 4½x3½x1½". Shipping weight, 2½ lbs. Two models.
24F170. Model 632-S. Momentary contact. 1 to 9..........**8.25**
10 to 19..........**7.43** 20 to 49..........**6.60**
24F171. Model 632-D. Maintained contact. 1 to 9..........**11.00**
10 to 19..........**9.90** 20 to 49..........**8.80**

Fig. G. The Lektro-Lok. L-2-S. This switch operates on the teeter-totter principle with selective circuits. Mechanical interlock prevents both circuits from being operative at the same time. SPDT. Can be wired normally open or normally closed. Rated 15 amps at 125-250 Volts. AC only. 12 oz.
24F168. 1 to 9.......... **5.80**
10 to 19..........**5.22** 20 to 49..........**4.64**

Fig. H. Model 476S. Two SPDT switches in double-pressure housing. Light spring for seated operation, may be wired as Single Pole, normally open or closed, are 8½x3½x2". Shipping weight, 2 lbs.
24F166. 1 to 9.......... **16.50**
10 to 19..........**14.85** 20 to 49..........**13.20**

GENERAL CONTROL SWITCHES

M1

MA

MC

TYPE M1

Inclined non-slip treadle type. 10-20A. 110V. *Spring return, SPDT. †Press-on-press.

Stk. No.	Type	1-9	10-49	50-249	250-499	500-999
24F152	M1-23*	11.35	10.76	10.16	9.56	8.96
24F153	M1-25†	13.06	12.38	11.69	11.00	10.31

TYPE MA

Foot type for limited space. Up to 20A. SPDT, spring return. Normal circuit: 1 open, 1 closed.

Stk. No.	Type	1-9	10-49	50-249	250-499	500-999
24F150	MA-3	5.32	5.04	4.76	4.48	4.20

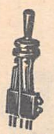
TYPE MC

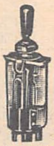
Can be operated at any point on surface by foot, hand or knee. SPDT, spring return.

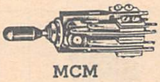
Stk. No.	Type	1-9	10-49	50-249	250-499	500-999
24F151	MC-13	7.55	7.16	6.76	6.36	5.96

LEVER SWITCHES

Built for long life and dependability. Whether the application requires the rugged durability or the critical specs required for the Armed Forces, G-C switches are built to last. Riveted construction, positive lever operation, no bounce, high quality insulation material and plating. Type MCS is a small switch for instruments and communications systems. 2 contact sections. ½" single-hole mountings, except MCS-S1-C-C (7/16"). 1 amp. Type MCT-1 is a miniature version of telephone type lever switch. 4 contact sections. 3 amp. Type MCM is a multiple position ball bearing lever action. 4 contact sections. 5 amp. All Center Off 4PDT, except †. DPDT. *Spring Return. Av. Shpg. wt., 3½ oz.

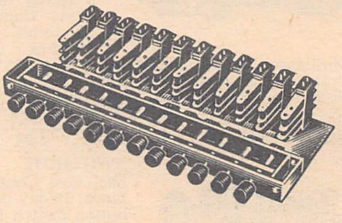

MCS


MCT


MCM

No.	Type	Lgth.	1-9	10-49	50-249	250-499	500-999
24F140	MCS-S1-C-C†	2 1/16"	2.71	2.57	2.42	2.28	2.14
24F141	MCT1-T1-C-C-C-C	2 5/16"	5.06	4.80	4.53	4.26	4.00
24F142	MCT1-T3-C-C-C-C*	2 5/16"	5.06	4.80	4.53	4.26	4.00
24F143	MCM-M1-C-C-C-C	2¾"	6.89	6.53	6.16	5.80	5.44
24F144	MCM-M3-C-C-C-C*	2¾"	6.89	6.53	6.16	5.80	5.44

PUSH BUTTON SWITCHES

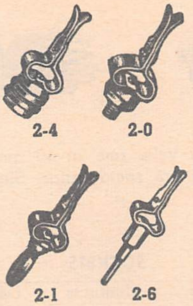


General Control MPB push button switches offer remote centralized control; a multitude of circuits can be controlled with the many varieties of contact and plunger operation combinations possible. The MPB switch uses silver contacts permanently riveted to nickel plated phosphor bronze springs. The B-14 allows any button pushed to release any previously pressed button. Perfect for test equipment, control panels, and any application where a variety of circuits is needed. Solder terminals placed conveniently for ease of construction. ⅛" panel.

No.	Type	Circuit	1-9	10-49	50-249	250-499	500-999
24F145	MPB6-B14-2C	6 DPDT	22.23	21.06	19.89	18.72	17.55
24F146	MPB12-B14-2C	12 DPDT	43.23	40.95	38.68	36.40	34.13

SOCKETS–BINDING POSTS

TEST CLIPS



Type 2-0. Threaded stud mounts on insulated panel. Leads of device under test slip easily in and out of clamp. Adjustable spring action. 1⁹⁄₁₆" long. Shpg. wt., 2 oz.

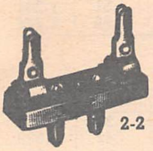
28F550. NET.....20c

Type 2-4. Insulated Clip Has molded phenolic washers to insulate from metal panel. Wt., 2 oz.

28F411. NET.....35c

Type 2-1. Banana Plug Clip. For "Q" meters and other equipment with irregularly spaced jacks. 1⅛" long. Shpg. wt. 2 oz.
28F554. NET..........**35c**

Type 2-6 Phone Tip Clip. Mounted on standard phone tip to fit jacks. Shpg. wt. 2 oz.
28F412. NET..........**35c**



Type 2-7. Similar to Type 2-2 Plug-in-Adapter below except adjustable from ¾ to 1¼ centers.
28F413. NET. 1.50

Type 2-2 Plug-in Adapter. Useful in testing resistors and other pigtail units. Two nickel-plated clips on molded phenolic board, to MIL-M-14. Banana plugs spaced on ¾" centers.
28F553. NET..........**1.40**

PRINTED CIRCUIT TEST JACKS

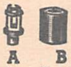


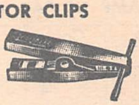
Fig. A. Series 31. Eyelet-type jacks that rivet to printed circuit board Take phone tips.
28F400. Type 31-1. For ¹⁄₁₆" board.
28F401. Type 31-2. For ³⁄₃₂" board.
28F402. Type 31-3. For ⅛" board.
1-49..........**25c**
50-99..........**.19**

TEST JACK INSULATING SLEEVES

Fig. B. Snap-on plastic insulators for above jacks. Lock in place. 8 colors for easy identification. .245" dia. x .29" high.

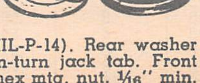
No.	Type	Color	NET
28F403	31B-1	Black	.10
28F404	31B-2	Red	
28F405	31B-3	Green	
28F406	31B-4	Grey	
28F407	31B-5	Brown	
28F408	31B-6	Blue	
28F409	31B-7	Yellow	
28F410	31B-8	White	

INSULATED ALLIGATOR CLIPS



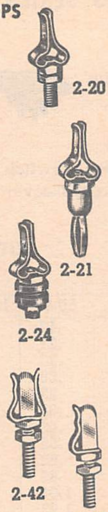
Series 16. Fully insulated test clips that can be placed side-by-side without electrical short-circuit! Silver overlay contacts. Shpg. wt. 2 oz.
28F551. Type 16R. Red. **NET**.......... **85c**
28F552. Type 16B. Black. **NET**..........**85c**

MATING INSULATING WASHERS



No. 21B78-2. Insulates jack with ⅜" bushing from panel. Molded black electric grade phenolic (MIL-P-14). Rear washer index hole fits non-turn jack tab. Front washer fits under hex mtg. nut. ¹⁄₁₆" min. panel thickness. Wt., 1 oz.
28F579. NET PER SET..........**20c**

MINIATURE TEST CLIPS



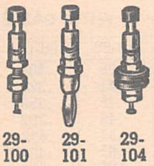
Type 2-20. Allows rapid connections without manually opening and closing jaws. Extends only ¾" above surface. Nickel plated brass with 6-32 thrd. stud. Hex nut under clip allows for tension adjustment of jaws. Shpg. wt. 2 oz.
28F414. NET..........**25c**

Type 2-21. Similar to 2-20 except mounted on a standard banana plug.
28F415. NET..........**40c**

Type 2-24. Similar to 2-20 except supplied with 2 molded phenolic shoulder insulating washers.
28F416. NET.......... **40c**

Type 2-41 & 2-42. Panel area required, exclusive of nut; single unit—³⁄₁₆"x⅛", double unit—¼"x⅛". Mounting stud ⅜" long. Nickel plated brass with beryllium copper spring. Hex nut under spring adjusts tension.
28F624. 2-41. Single.
NET Ea. **0.25**
28F625. 2-42. Double.
NET Ea. **0.30**

PUSH POSTS



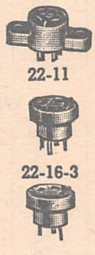
Type 29-100. Quick positive connections by depressing plunger. Extends only ⅞" above mounting surface. Nickel plated brass with a molded phenolic button cap. #8-32 threaded stud. Shpg. wt. 2 oz.

Type 29-101. Similar to 29-100 except mounted on standard banana plug.

Type 29-104. Similar to 29-100 except supplied with molded insulating washers.

Stock No.	Mfg. No.	Color	1-499	500-999
28F417	29-100R	Red	35c	30c
28F418	29-100B	Black		
28F419	29-101R	Red	50c	44c
28F420	29-101B	Black		
28F421	29-104R	Red		
28F422	29-104B	Black		

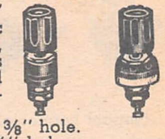
TRANSISTOR SOCKETS



Designed for JETEC series transistor. Leads fit 100 MIL printed circuit grid. Dia. of pin centers .200. Contacts: silver plated. **22-11** and **22-16** have bases molded of mica filled phenolic per Mil-M-14, type MFE. **22-18** bases are molded Melamine per Mil-M-14, type CMG. **22-11** fits through ⅜" hole for fastening with rivets or #2 screws. **22-16** is designed for soldering directly into printed circuits or to fit "D" hole for fastening with "Truarc" ring. Shpg. wt. 2 oz.

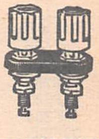
Stk. No.	Type	Pins	Clr	1-49	50-99
28F632	22-11	4	Nat	.35	.26
28F633	22-16-3	3	Nat	.30	.23
28F634	22-16-4	4	Nat	.35	.26
28F620	22-18-3	3	Blk	.35	.26
28F621	22-18-3	3	Red	.35	.26
28F622	22-18-4	4	Blk	.40	.30
28F623	22-18-4	4	Red	.40	.30

COMPACT BINDING POSTS



Series 29. ½" and ⅜" mounting hole. Phenolic washers to MIL-M-14, with nickel-plated brass metal parts. Integral solder studs. For panels to ³⁄₁₆". Wt., 3 oz.
28F567. 29-1B. Black for ⅜" hole.
28F566. 29-1R. Red for ⅜" hole.
28F569. 29-3B. Black for ½" hole.
28F568. 29-3R. Red for ½" hole.
1-499 ....**40c**
500-999 ....**.35**

BINDING POST BASES

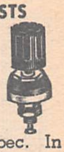


Designed for use with No. 29-1 binding post to make assembled units of two or three posts. Post placed at ¾" centers. Insulates from chassis. Molded phenolic to MIL-M-14.

Stk. No.	Mfg. No.	Color	1-499	500-999
28F557	29B11-1	Black*	.10	.09
28F558	29B11-2	Red*	.10	.09
28F626	29B32-1	Black†	.20	.17
28F627	29B32-2	Red†		
28F628	29B33-1	Black††		
28F629	29B33-2	Red††		

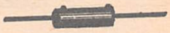
*Dual †Triple Rectangular
††Triple Triangular

SPRING-LOADED BINDING POSTS



Series 29-33. For rapid connections. Head gives 24-oz. contact force. For ½" mtg. hole, ³⁄₁₆" thick panel. ⅜" diam. insul., non-turn "D" phenolic washers to MIL-M-14 spec. In red or black. Shpg. wt. 2 oz.
28F630 (Red, 29-33R) **1-499**.......... **.40**
500-999 .... **.35**
28F631 (Black, 29-33B) **1-499**.......... **.40**
500-999 .... **.35**

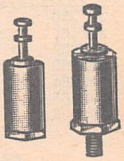
COIL FORMS



Type 28YY1003. Molded mica-filled phenolic (MIL-M-14 type MFE) for low loss at high freq. Tinned copper wire leads. Anchor posts. Shpg. wt. 2 oz.

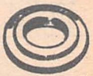
Stk. No.	Body L. x D.	1-49	50-99
40F600	.500x.125"	20c	15c
40F601	.625x.187"		
40F602	.750x.187"		
40F603	.500x.250"		
40F604	.750x.250"		
40F605	1.000x.250"		
40F606	.500x.156"		

STANDOFF INSULATORS



Bodies are molded of mica-filled phenolic (MIL-M-14 type MFE) for low loss at high frequencies, low moisture absorption and fungus resistance. Brass solder terminals, silver plated. Length, front of panel, ¹⁵⁄₁₆" — diameter ⁵⁄₁₆". Av. shpg. wt. 3 oz.
Type 18-1 (Female 4-40)
37F198. 1-49..........**35c**
50-99 ....**.26**
Type 18-2 (Male 4-40)
37F199. 1-49 ....**40c**
50-99 ....**30c**

MOLDED INSULATING WASHERS



Molded insulating washers made from black electric grade phenolic. Manufactured under Specifications MIL-P-14, Type CFG. The finest grade of insulating washers. For all applications. Shpg. wt. 2 oz.

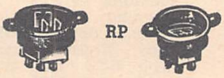
Stock No.	Mfg. No.	Screw Size	Overall Dia.	Shoulder Dia.	Base Height	Shoulder Height	10 for
28F572	21B1001-2	No. 6	.500"	.375"	.063"	.031."	1.00
28F573	21B1002-2	No. 8	.500"	.375"	.063"	.031."	
28F574	21B1003-2	No. 10	.500"	.375"	.063"	.031."	
28F575	21B1004-2	¼"	.500"	.375"	.063"	.031."	
28F576	21B1005-2	⁵⁄₁₆"	.500"	.375"	.063"	.031."	
28F577	21B1006-2	⅜"	.625"	.500"	.063"	.031."	
28F578	21B1021-2	No. 6	.375"	.250"	.063"	.031."	

JONES PLUGS AND SOCKETS

JONES SERIES 300 PLUGS AND SOCKETS

AB

FP


RP

CCT

Compact connectors with phosphor-bronze "knife switch" type socket contacts. Black crystal-finished metal caps cover bakelite body. Rated: 730 volts rms at 10 amps. 2-contact types are round, all others are rectangular. Shpg. wt., 3 oz.

WITH ANGLE BRACKETS

PLUGS

Stock No.	Mfr. No.	Contacts	1-49	50-99	100-up
39F200	P-302-AB	2	.20	.17	.132
39F201	P-303-AB	3	.25	.21	.164
39F202	P-304-AB	4	.27	.23	.180
39F203	P-306-AB	6	.34	.28	.224
39F204	P-308-AB	8	.40	.33	.264
39F205	P-310-AB	10	.45	.38	.300
39F206	P-312-AB	12	.50	.42	.332
39F207	P-315-AB	15	.66	.55	.44
39F208	P-318-AB	18	.82	.69	.548
39F209	P-321-AB	21	1.03	.86	.688
39F210	P-324-AB	24	1.25	1.04	.832
39F211	P-327-AB	27	1.47	1.23	.98
39F212	P-330-AB	30	1.69	1.41	1.124
39F213	P-333-AB	33	1.90	1.58	1.264

SOCKETS

Stock No.	Mfr. No.	Contacts	1-49	50-99	100-up
39F220	S-302-AB	2	.22	.18	.144
39F221	S-303-AB	3	.26	.22	.172
39F222	S-304-AB	4	.29	.24	.192
39F223	S-306-AB	6	.36	.30	.24
39F224	S-308-AB	8	.45	.38	.30
39F225	S-310-AB	10	.53	.45	.356
39F226	S-312-AB	12	.62	.52	.412
39F227	S-315-AB	15	.77	.64	.512
39F228	S-318-AB	18	.93	.78	.62
39F229	S-321-AB	21	1.15	.96	.764
39F230	S-324-AB	24	1.36	1.14	.908
39F231	S-327-AB	27	1.58	1.32	1.052
39F232	S-330-AB	30	1.81	1.51	1.204
39F233	S-333-AB	33	2.02	1.68	1.344

WITH CABLE CLAMP IN CAP

Stock No.	Mfr. No.	Contacts	1-49	50-99	100-up
39F280	P-302-CCT	2	.46	.38	.304
39F281	P-303-CCT	3	.49	.41	.324
39F282	P-304-CCT	4	.53	.45	.356
39F283	P-306-CCT	6	.59	.49	.392
39F284	P-308-CCT	8	.65	.54	.432
39F285	P-310-CCT	10	.73	.61	.484
39F286	P-312-CCT	12	.79	.66	.528
39F287	P-315-CCT	15	1.03	.86	.688
39F288	P-318-CCT	18	1.25	1.04	.832
39F289	P-321-CCT	21	1.47	1.23	.98
39F290	P-324-CCT	24	1.73	1.45	1.156
39F291	P-327-CCT	27	1.97	1.64	1.312
39F292	P-330-CCT	30	2.29	1.91	1.528
39F293	P-333-CCT	33	2.45	2.05	1.636

Stock No.	Mfr. No.	Contacts	1-49	50-99	100-up
39F300	S-302-CCT	2	.46	.39	.308
39F301	S-303-CCT	3	.50	.42	.332
39F302	S-304-CCT	4	.54	.45	.36
39F303	S-306-CCT	6	.62	.52	.412
39F304	S-308-CCT	8	.72	.60	.48
39F305	S-310-CCT	10	.80	.67	.536
39F306	S-312-CCT	12	.92	.77	.616
39F307	S-315-CCT	15	1.15	.96	.764
39F308	S-318-CCT	18	1.36	1.14	.908
39F309	S-321-CCT	21	1.58	1.32	1.052
39F310	S-324-CCT	24	1.86	1.55	1.24
39F311	S-327-CCT	27	2.08	1.73	1.384
39F312	S-330-CCT	30	2.40	2.00	1.60
39F313	S-333-CCT	33	2.57	2.14	1.712

WITH FLUSH PLATE

Stock No.	Mfr. No.	Contacts	1-49	50-99	100-up
39F240	P-302-FP	2	.35	.29	.232
39F241	P-303-FP	3	.38	.32	.252
39F242	P-304-FP	4	.41	.35	.276
39F243	P-306-FP	6	.46	.39	.308
39F244	P-308-FP	8	.53	.44	.352
39F245	P-310-FP	10	.58	.49	.388
39F246	P-312-FP	12	.63	.53	.42

Stock No.	Mfr. No.	Contacts	1-49	50-99	100-up
39F250	S-302-FP	2	.35	.30	.236
39F251	S-303-FP	3	.40	.33	.264
39F252	S-304-FP	4	.43	.36	.284
39F253	S-306-FP	6	.49	.41	.324
39F254	S-308-FP	8	.58	.49	.388
39F255	S-310-FP	10	.67	.56	.444
39F256	S-312-FP	12	.75	.63	.50

WITH RECESSED PLATE

Stock No.	Mfr. No.	Contacts	1-49	50-99	100-up
39F260	P-302-RP	2	.40	.34	.268
39F261	P-303-RP	3	.43	.36	.288
39F262	P-304-RP	4	.47	.40	.316
39F263	P-306-RP	6	.54	.45	.36
39F264	P-308-RP	8	.62	.52	.416
39F265	P-310-RP	10	.72	.60	.48
39F266	P-312-RP	12	.79	.66	.528

Stock No.	Mfr. No.	Contacts	1-49	50-99	100-up
39F270	S-302-RP	2	.41	.35	.276
39F271	S-303-RP	3	.46	.38	.304
39F272	S-304-RP	4	.49	.41	.324
39F273	S-306-RP	6	.59	.49	.392
39F274	S-308-RP	8	.68	.57	.456
39F275	S-310-RP	10	.79	.66	.528
39F276	S-312-RP	12	.90	.75	.60

CABLE CLAMP IN CAP WITH LATCHES

Stock No.	Mfr. No.	Contacts	1-49	50-99	100-up
29FX859	P-302-CCT-L	2	.58	.49	.388
29FX860	P-303-CCT-L	3	.61	.51	.408
29FX861	P-304-CCT-L	4	.66	.55	.44
29FX862	P-306-CCT-L	6	.72	.60	.48
29FX863	P-308-CCT-L	8	.77	.64	.512
29FX864	P-310-CCT-L	10	.84	.70	.56
29FX865	P-312-CCT-L	12	.93	.78	.62

CABLE CLAMP IN CAP WITH KEEPERS

Stock No.	Mfr. No.	Contacts	1-49	50-99	100-up
29FX866	S-302-CCT-K	2	.59	.49	.392
29FX867	S-303-CCT-K	3	.62	.52	.416
29FX868	S-304-CCT-K	4	.67	.56	.444
29FX869	S-306-CCT-K	6	.74	.62	.496
29FX870	S-308-CCT-K	8	.83	.70	.556
29FX871	S-310-CCT-K	10	.94	.78	.624
29FX872	S-312-CCT-K	12	1.03	.86	.684

FLARED HOLE IN CAP

Stock No.	Mfr. No.	Contacts	1-49	50-99	100-up
29FX879	P-302-FHT	2	.34	.28	.224
29FX880	P-303-FHT	3	.37	.31	.244
29FX881	P-304-FHT	4	.41	.34	.272
29FX882	P-306-FHT	6	.46	.39	.308
29FX883	P-308-FHT	8	.53	.44	.352
29FX884	P-310-FHT	10	.59	.50	.396
29FX885	P-312-FHT	12	.67	.56	.448

WITH DEEP BRACKET

Stock No.	Mfr. No.	Contacts	1-49	50-99	100-up
29FX873	S-302-DB	2	.52	.44	.348
29FX874	S-303-DB	3	.56	.47	.372
29FX875	S-304-DB	4	.59	.50	.396
29FX876	S-306-DB	6	.67	.56	.444
29FX877	S-308-DB	8	.75	.63	.50
29FX878	S-312-DB	12	.92	.77	.616

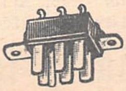
JONES PLUGS AND SOCKETS

SERIES 300 SB AND DB SOCKETS

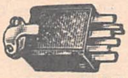
Stk. No.	Mfr. No.	Contacts	1-49 Ea.	50-99 Ea.	100-up Ea.
29FX886	S-315-SB	15	1.10	.92	.732
29FX887	S-318-SB	18	1.31	1.09	.872
29FX888	S-321-SB	21	1.53	1.28	1.02
29FX889	S-324-SB	24	1.81	1.51	1.204
29FX890	S-327-SB	27	2.02	1.68	1.344
29FX891	S-330-SB	30	2.29	1.91	1.528
29FX892	S-333-SB	33	2.51	2.09	1.672

Stock No.	Mfr. No.	Contacts	1-49 Ea.	50-99 Ea.	100-up Ea.
29FX893	S-315-DB	15	1.10	.92	.732
29FX894	S-318-DB	18	1.31	1.09	.872
29FX895	S-321-DB	21	1.53	1.28	1.02
29FX896	S-324-DB	24	1.81	1.51	1.204
29FX897	S-327-DB	27	2.02	1.68	1.344
29FX898	S-330-DB	30	2.29	1.91	1.528
29FX899	S-333-DB	33	2.51	2.09	1.672

SERIES 400 AND 2400 PLUGS AND SOCKETS


P-406-AB

S-406-AB


P-406-CCT

S-406-CCT

P-2406-DB

S-2406-DB

Series 400 plugs and sockets are made in 2, 4, 6, 8, 10, and 12 contacts. Phosphor bronze knife switch type socket contacts engage both sides of plug. Plug prongs are of heavy brass 1/4" wide x 1/16" thick. Caps are finished in black crystal and equipped with fibre lining. Body of Molded Bakelite. Rated at 1100 RMS volts at 15 amps.

Series 2400 sockets and plugs are designed for high electrical and mechanical efficiency. They are similar to the 400 series except that their design increases the creepage distances and can take higher voltages. They are interchangeable with the 400 series. Rated at 1700 RMS Volts at 15 amps. Shpg. wt., 5 oz.

SERIES 400 PLUGS WITH ANGLE BRACKETS

Stock No.	Mfr. No.	Description	1-49 Ea.	50-99 Ea.	100-up Ea.
39F320	P-402-AB	2	.50	.42	.332
39F321	P-404-AB	4	.61	.51	.404
39F322	P-406-AB	6	.73	.61	.488
39F323	P-408-AB	8	.84	.70	.56
39F324	P-410-AB	10	.95	.80	.636
39F325	P-412-AB	12	1.05	.88	.70

SERIES 400 PLUGS WITH CABLE CLAMP IN TOP

39F340	P-402-CCT	2	.78	.65	.52
39F341	P-404-CCT	4	.95	.80	.636
39F342	P-406-CCT	6	1.12	.93	.744
39F343	P-408-CCT	8	1.27	1.06	.848
39F344	P-410-CCT	10	1.43	1.20	.956
39F345	P-412-CCT	12	1.60	1.34	1.068

SERIES 400 PLUGS WITH DEEP BRACKET FOR RECESSED MOUNTING

Stock No.	Mfr. No.	Contacts	1-49 Ea.	50-99 Ea.	100-up Ea.
29FX514	P-402-DB	2	.61	.51	.404
29FX515	P-404-DB	4	.78	.65	.52
29FX516	P-406-DB	6	.95	.80	.636
29FX517	P-408-DB	8	1.12	.93	.744
29FX518	P-410-DB	10	1.28	1.07	.856
29FX519	P-412-DB	12	1.45	1.21	.968

SERIES 2400 PLUG WITH CABLE CLAMP IN TOP

29FX523	P-2402-CCT	2	.95	.79	.632
29FX524	P-2404-CCT	4	1.07	.90	.716
29FX525	P-2406-CCT	6	1.20	1.00	.80
29FX526	P-2408-CCT	8	1.31	1.10	.876
29FX527	P-2410-CCT	10	1.45	1.21	.968
29FX528	P-2412-CCT	12	1.60	1.34	1.068

SERIES 400 PLUG WITH SHALLOW BRACKET FOR FLUSH MOUNTING

Stock No.	Mfr. No.	Contacts	1-49 Ea.	50-99 Ea.	100-up Ea.
39F380	S-402-SB	2	.67	.56	.448
39F381	S-404-SB	4	.89	.74	.592
39F382	S-406-SB	6	1.12	.93	.744
39F383	S-408-SB	8	1.33	1.11	.888
39F384	S-410-SB	10	1.55	1.29	1.032
39F385	S-412-SB	12	1.77	1.48	1.18

SERIES 400 SOCKETS WITH ANGLE BRACKETS

Stock No.	Mfr. No.	Contacts	1-49 Ea.	50-99 Ea.	100-up Ea.
39F330	S-402-AB	2	.56	.47	.376
39F331	S-404-AB	4	.73	.61	.488
39F332	S-406-AB	6	.89	.74	.592
39F333	S-408-AB	8	1.05	.88	.70
39F334	S-410-AB	10	1.23	1.03	.82
39F335	S-412-AB	12	1.39	1.16	.924

SERIES 400 SOCKETS WITH CABLE CLAMP IN TOP

39F346	S-402-CCT	2	.85	.71	.564
39F347	S-404-CCT	4	1.06	.88	.704
39F348	S-406-CCT	6	1.28	1.07	.856
39F349	S-408-CCT	8	1.51	1.26	1.004
39F350	S-410-CCT	10	1.73	1.45	1.156
39F351	S-412-CCT	12	1.95	1.63	1.30

SERIES 2400 SOCKETS WITH DEEP BRACKET FOR RECESSED MOUNTING

Stock No.	Mfr. No.	Contacts	1-49 Ea.	50-99 Ea.	100-up Ea.
29FX900	S-2402-DB	2	.79	.66	.524
29FX901	S-2404-DB	4	.93	.78	.62
29FX902	S-2406-DB	6	1.04	.87	.696
29FX903	S-2408-DB	8	1.20	1.00	.80
29FX904	S-2410-DB	10	1.34	1.12	.896
29FX905	S-2412-DB	12	1.48	1.23	.984

SERIES 2400 SOCKET WITH CABLE CLAMP IN TOP

29FX529	S-2402-CCT	2	1.02	.85	.68
29FX530	S-2404-CCT	4	1.14	.95	.76
29FX531	S-2406-CCT	6	1.27	1.06	.844
29FX532	S-2408-CCT	8	1.41	1.18	.94
29FX533	S-2410-CCT	10	1.55	1.30	1.036
29FX534	S-2412-CCT	12	1.70	1.42	1.132

SERIES 2400 SOCKETS WITH SHALLOW BRACKET FOR FLUSH MOUNTING

29FX535	S-2402-SB	2	.74	.62	.492
29FX536	S-2404-SB	4	.86	.72	.576
29FX537	S-2406-SB	6	1.00	.84	.668
29FX538	S-2408-SB	8	1.14	.95	.76
29FX539	S-2410-SB	10	1.28	1.07	.856
29FX540	S-2412-SB	12	1.42	1.19	.948

MISCELLANEOUS PLUGS AND BRACKETS

CABLE CLAMPS

Stock No.	Mfr. No.	I.D.	1-49 Ea.	50-99 Ea.	100-up Ea.
28FX783	CC-161-4	1/4"	.12	.10	.08
28FX784	CC-161-6	3/8"	.13	.11	.084
28FX785	CC-161-8	1/2"	.13	.11	.088
28FX786	CC-161-10	5/8"	.14	.12	.092
28FX787	CC-161-12	3/4"	.14	.12	.096
28FX788	CC-161-14	7/8"	.15	.13	.10

SERIES 101 PLUGS

39F398	P-101-1/4"	1 1/4"	.52	.44	.348
29FX500	P-101-.290"	1 1/4"	.64	.53	.424
29FX501	P-101-5/16"	1 3/8"	.64	.53	.424
39F397	P-101-3/8"	1 3/16"	.64	.53	.424
29FX502	P-101-1/2"	1 7/8"	.71	.59	.472

SERIES 101 SOCKETS

39F399	S-101		.46	.39	.308
29FX503	S-101-D		.71	.59	.472
29FX504	S-101-D Mod		.71	.59	.472

SERIES 201 PLUGS AND SOCKETS

Stock No.	Mfr. No.	Description	1-49 Ea.	50-99 Ea.	100-up Ea.
29FX505	P-201-3/8"	1 9/16"	.82	.68	.544
29FX506	S-201		.88	.73	.584

SERIES 202 PLUGS AND SOCKETS

29FX507	P-202-CCT	Plug with cable clamps	.65	.54	.432
29FX508	S-202-CCT	Socket with cable clamps	.66	.55	.44
29FX509	S-202-CCT-THR	S-202-CCT w/ threaded body	.88	.73	.584
29FX510	P-202-FHT	Plug without cable clamps	.52	.44	.348
29FX511	S-202-FHT	Socket w/o cable clamps	.53	.45	.356
29FX512	S-202-B	Socket with mtg. base	.77	.64	.512
29FX513	P-202-B	Plug with mtg. base	.74	.62	.492

CONNECTORS AND TERMINAL STRIPS

JONES "H" CONNECTORS

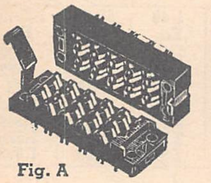


Fig. A

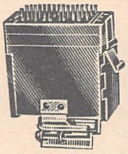


Fig. B

Maximum number of contacts in a minimum space. Designed to take alternate lock when required. Easy engagement and disengagement an outstanding feature. Engaged with normal pressure, disengaged by spring action of contacts when lock is released. Simple locking device insures positive contact. Type 37 plugs and sockets are of black Bakelite type CFG. All 1⅛" wide.

SOCKETS WITH LOCKS—FIG. A

Stk. No.	Type No.	1-49	50-99	100-up	Cont.	Lgth."
29FX906	37F20L	1.80	1.50	1.20	20	1.750
29FX907	37F30L	2.13	1.78	1.42	30	2.187
29FX908	37F40L	2.46	2.05	1.64	40	2.625
29FX909	37F50L	2.79	2.33	1.86	50	3.062
29FX910	37F60L	3.12	2.60	2.08	60	3.500
29FX911	37F70L	3.45	2.88	2.30	70	3.937
29FX912	37F80L	3.78	3.15	2.52	80	4.375
29FX913	37F90L	4.11	3.43	2.74	90	4.812
29FX914	37F100L	4.44	3.70	2.96	100	5.250

PLUGS WITH LOCKS Mates With Sockets At Left

Stk. No.	Type No.	1-49	50-99	100-up
29FX933	37M20	1.62	1.35	1.80
29FX934	37M30	1.95	1.63	1.30
29FX935	37M40	2.28	1.90	1.52
29FX936	37M50	2.61	2.18	1.74
29FX937	37M60	2.94	2.45	1.96
29FX938	37M70	3.27	2.73	2.18
29FX939	37M80	3.60	3.00	2.40
29FX940	37M90	3.93	3.28	2.62
29FX941	37M100	4.26	3.55	2.84

SOCKETS WITH LOCKS—FIG. A

Stk. No.	Type No.	1-49	50-99	100-up	Cont.	Lgth."
29FX915	37F20	1.62	1.35	1.08	20	1.750
29FX916	37F30	1.95	1.63	1.30	30	2.187
29FX917	37F40	2.28	1.90	1.52	40	2.625
29FX918	37F50	2.61	2.18	1.74	50	3.026
29FX919	37F60	2.94	2.45	1.96	60	3,500
29FX920	37F70	3.27	2.73	2.18	70	3.937
29FX921	37F80	3.60	3.00	2.40	80	4.875
29FX922	37F90	3.93	3.28	2.62	90	4.812
29FX923	37F100	4.26	3.55	2.84	100	5.250

PLUGS WITH LOCKS Mates With Sockets At Left

Stk. No.	TYPE No.	1-49	50-99	100-up
29FX924	37M20L	1.80	1.50	1.20
29FX925	37M30L	2.13	1.78	1.42
29FX926	37M40L	2.46	2.05	1.64
29FX927	37M50L	2.79	2.33	1.86
29FX928	37M60L	3.12	2.60	2.08
29FX929	37M70L	3.45	2.88	2.30
29FX930	37M80L	3.78	3.15	2.52
29FX931	37M90L	4.11	3.43	2.74
29FX932	37M100L	4.44	3.70	2.96

CAPS TO FIT HINGE CONNECTORS LISTED ABOVE—Fig. B

Caps are furnished with liners, cable clamps and designed to take the alternate lock when required. Caps are finished in black wrinkle and cable clamps are steel cadmium. Liners are formed fibre. The cable entrance hole is in the top of the cap.

Stk. No.	Type	For Types	Hole Size	1-49	50-99	100-up
29F942	37C20	M/F20	¾ in.	2.52	2.10	1.68
29F943	37C30	M/F30	13/16 x 1 in.	2.55	2.13	1.70
29F944	37C40	M/F40	13/16 x 1 in.	2.58	2.15	1.72

Stk. No.	Type	For Types	Hole Size	1-49	50-99	100-up
29F945	37C50	M/F50	13/16 x 1 in.	2.61	2.18	1.74
29F946	37C60	M/F60	13/16 x 1½ in.	2.64	2.20	1.76
29F947	37C70	M/F70	13/16 x 1½ in.	2.67	2.23	1.78
29F948	37C80	M/F80	13/16 x 1½ in.	2.70	2.25	1.80
29F949	37C90	M/F90	13/16 x 1½ in.	2.73	2.28	1.82
29F950	37C100	M/F100	13/16 x 1½ in.	2.76	2.30	1.84

ALTERNATE LOCK NO. 37AL

For more secure locking, this lock has a hook at the top that fits into a cut-out in the cap. Prevents accidental unlocking of the cap.

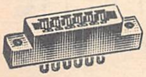
Stk. No.	Type	1-49	50-99	100-up
29F951	37AL	.36	.30	.24

BIFURCATED CONTACT EDGE CONNECTORS

Have two flexing surfaces to provide positive contact. Accommodates irregularities in printed circuit boards.

One plastic polarizing key is furnished unassembled with each connector.

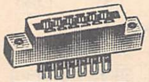
TYPE 250



Insulation is glass filled diallyl phthalate, type GDI30 per MIL-M-19833. Contacts are phosphor bronze with .00003 Min. Sel-Rex gold plate.

Stk. No.	Type	Contact Pos.	Contacts	1-49	50-99	100-up
29F952	50- 6A-2	6	6	.90	.75	.60
29F953	50-10A-2	10	10	1.20	1.00	.80
29F954	50-12A-2	12	12	1.35	1.13	.90
29F955	50-15A-2	15	15	1.58	1.32	1.05
29F956	50-18A-2	18	18	1.80	1.50	1.20
29F957	50-22A-2	22	22	2.10	1.75	1.40

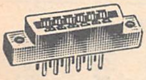
TYPE 251



Similar to type 250 except that the contact positions have two contacts instead of one. Insulation material and finish are the same type as type 250.

Stk. No.	Type	Contact Pos.	Contacts	1-49	50-99	100-up
29F958	50-12A-3	6	12	.90	.75	.60
29F959	50-20A-3	10	20	1.20	1.00	.80
29F960	50-24A-3	12	24	1.35	1.13	.90
29F961	50-30A-3	15	30	1.58	1.32	1.05
29F962	50-36A-3	18	36	1.80	1.50	1.20
29F963	50-44A-3	22	44	2.10	1.75	1.40

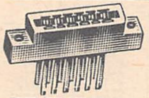
TYPE 252



Similar to type 251 except contact tails are for DIP soldering and will fit into .051 dia. holes. Contact positions contain two contacts.

29F964	50-12B-1	6	12	1.01	.84	.67
29F965	50-20B-1	10	20	1.39	1.16	.93
29F966	50-24B-1	12	24	1.58	1.32	1.06
29F967	50-30B-1	15	30	1.87	1.56	1.25
29F968	50-36B-1	18	36	2.54	1.80	1.44
29F969	50-44B-1	22	44	2.16	2.12	1.70

TYPE 253—STANDARD CONTACT



Similar to type 251 except that the contact tails are for WRAPOST connections. Contact positions contain two contacts.

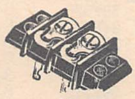
29F970	50-12B-2	6	12	1.53	1.28	1.02
29F971	50-20B-2	10	20	1.99	1.66	1.32
29F972	50-24B-2	12	24	2.21	1.85	1.48
29F973	50-30B-2	15	30	2.56	2.13	1.70
29F974	50-36B-2	18	36	2.90	2.42	1.93
29F975	50-44B-2	22	44	3.35	2.80	2.24

SERIES 140 AND 140-Y BARRIER TYPE TERMINAL STRIPS

Series 140. Base: ⅞" W x 13/32" H molded bakelite. Eyelets and binder head screws are brass, nickel plated. 5-40 x 3/16" screws. Leakage path ½". Shpg. wt., 3 oz. Use with Series 160 Fanning strips listed on following page.

Series 140-Y. Same as Series 140 but with Thru-panel solder lugs.

140


140-Y

SERIES 140

Stk. No.	Type	Cont.	1-49	50-99	100-up
28F700	2-140	2	.14	.12	.10
28F701	3-140	3	.20	.17	.13
28F702	4-140	4	.25	.21	.17
28F703	5-140	5	.31	.26	.20
28F704	6-140	6	.35	.30	.24
28F705	7-140	7	.41	.34	.27
28F706	8-140	8	.46	.39	.31
28F707	9-140	9	.52	.43	.34
28F708	10-140	10	.57	.48	.38
28F709	11-140	11	.62	.52	.41
28F710	12-140	12	.67	.56	.45
28F869	13-140	13	.73	.61	.48
28F870	14-140	14	.79	.66	.52
28F871	15-140	15	.84	.70	.56
28F872	16-140	16	.89	.75	.60
28F873	17-140	17	.94	.79	.63
28F874	18-140	18	1.00	.83	.66
28F875	19-140	19	1.05	.88	.70
28F876	20-140	20	1.10	.92	.74
28F877	21-140	21	1.16	.97	.77

SERIES 140-Y

Stk. No.	Type	Cont.	1-49	50-99	100-up
29FX749	2-140-Y	2	.19	.16	.13
29FX750	3-140-Y	3	.26	.22	.18
29FX751	4-140-Y	4	.34	.29	.23
29FX752	5-140-Y	5	.41	.35	.28
29FX753	6-140-Y	6	.50	.42	.33
29FX754	7-140-Y	7	.57	.48	.38
29FX755	8-140-Y	8	.65	.54	.43
29FX756	9-140-Y	9	.73	.61	.48
29FX757	10-140-Y	10	.80	.67	.53
29FX758	11-140-Y	11	.87	.73	.58
29FX759	12-140-Y	12	.95	.79	.63
29FX760	13-140-Y	13	1.03	.86	.68
29FX761	14-140-Y	14	1.10	.92	.74
29FX762	15-140-Y	15	1.18	.98	.78
29FX763	16-140-Y	16	1.25	1.05	.84
29FX764	17-140-Y	17	1.33	1.11	.88
29FX765	18-140-Y	18	1.40	1.17	.94
29FX766	19-140-Y	19	1.48	1.23	.98
29FX767	20-140-Y	20	1.56	1.30	1.04
29FX768	21-140-Y	21	1.63	1.36	1.09

TERMINAL STRIPS AND CONNECTORS

SERIES 140 TERMINAL STRIPS AND ACCESSORIES CONT.

SERIES 160 FANNING STRIPS

Fits 140 Series Barrier Strips. Brass, cadmium plated .032" terminals are mounted on 3/32" bakelite, 1/2" wide and on 3/8" centers. Average shipping wt., 3 oz.

Mounting hole on left.

Stk. No.	Type	Cont.	1-49	50-99	100-up
28F750	2-160-L	2	.08	.07	.056
28F751	3-160-L	3	.13	.11	.088
28F752	4-160-L	4	.17	.14	.112
28F753	5-160-L	5	.21	.18	.14
28F754	6-160-L	6	.26	.22	.172
28F755	7-160-L	7	.30	.25	.20
28F756	8-160-L	8	.34	.28	.224
28F757	9-160-L	9	.38	.32	.252
28F758	10-160-L	10	.42	.35	.28
28F759	11-160-L	11	.46	.39	.308
28F760	12-160-L	12	.50	.42	.336

Mounting hole on right.

Stk. No.	Type	Cont.	1-49	50-99	100-up
28F800	2-160-R	2	.08	.07	.056
28F801	3-160-R	3	.13	.11	.088
28F802	4-160-R	4	.17	.14	.112
28F803	5-160-R	5	.21	.18	.14
28F804	6-160-R	6	.26	.22	.172
28F805	7-160-R	7	.30	.25	.20
28F806	8-160-R	8	.34	.28	.224
28F807	9-160-R	9	.38	.32	.252
28F808	10-160-R	10	.42	.35	.28
28F809	11-160-R	11	.46	.39	.308
28F810	12-160-R	12	.50	.42	.336

MARKER STRIPS FOR USE WITH SERIES 140

Strips are of 1/32" black fibre and have same mounting holes as barrier strips. Strips also serve as an insulator when mounted on a metal surface. Approx. Shpg. wt., 2 oz.

Type MS-140

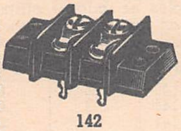
Stk. No.	Type	Cont.	1-49	50-99	100-up
29FX804	MS- 2-140	2	.05	.04	.035
29FX805	MS- 3-140	3	.06	.05	.039
29FX806	MS- 4-140	4	.06	.05	.043
29FX807	MS- 5-140	5	.07	.06	.046
29FX808	MS- 6-140	6	.08	.06	.05
29FX809	MS- 7-140	7	.08	.07	.054
29FX810	MS- 8-140	8	.09	.07	.058
29FX811	MS- 9-140	9	.09	.08	.062
29FX812	MS-10-140	10	.13	.11	.086
29FX813	MS-11-140	11	.13	.11	.089
29FX814	MS-12-140	12	.14	.12	.093
29FX815	MS-13-140	13	.15	.12	.097
29FX816	MS-14-140	14	.15	.13	.101
29FX817	MS-15-140	15	.16	.13	.104
29FX818	MS-16-140	16	.19	.16	.128
29FX819	MS-17-140	17	.20	.17	.132
29FX820	MS-18-140	18	.20	.17	.136
29FX821	MS-19-140	19	.21	.17	.14
29FX822	MS-20-140	20	.25	.20	.164
29FX823	MS-21-140	21	.25	.21	.167

SOLDER TERMINALS FOR USE WITH SERIES 140

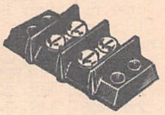
Stk. No.	Type	1-499	500-999	1000-up
28FX791	3/4W-140	.02	.019	.018
28F797	W-140	.02	.019	.018
28F794	Y-140	.02	.019	.018

SERIES 142 TERMINAL STRIPS AND ACCESSORIES

SERIES 142 AND 142-Y BARRIER TYPE TERMINAL STRIPS



142



142-Y

Series 142. Increased insulation is provided by having barriers placed between each terminal. Long leakage path prevents direct shorts from frayed wire at terminal. Base: 15/16" W x 5/8" H. molded bakelite. Eyelets and binder head screws are brass, nickel plated. 8-32 x 5/16" screw. Use with Series 162 Fanning Strips. Shpg. wt., 3 oz.

Series 142-Y. Same as Series 142 but with Thru-panel solder lugs.

Series 142

Stock No.	Mfr. No.	Cont.	1-49 Ea.	50-99 Ea.	100-up Ea.
28F722	2-142	2	.22	.18	.144
28F723	3-142	3	.31	.26	.204
28F724	4-142	4	.39	.33	.26
28F725	5-142	5	.47	.39	.312
28F726	6-142	6	.55	.46	.368
28F727	7-142	7	.64	.54	.428
28F728	8-142	8	.72	.60	.48
28F729	9-142	9	.80	.67	.536
28F730	10-142	10	.89	.75	.596
28F731	11-142	11	.97	.81	.648
28F732	12-142	12	1.06	.88	.704
28F886	13-142	13	1.14	.95	.76
28F887	14-142	14	1.22	1.02	.816
28F888	15-142	15	1.31	1.09	.872
28F889	16-142	16	1.39	1.16	.928
28F890	17-142	17	1.47	1.23	.98

Series 142-Y

Stock No.	Mfr. No.	Cont.	1-49 Ea.	50-99 Ea.	100-up Ea.
29FX788	2-142-Y	2	.30	.25	.20
29FX789	3-142-Y	3	.42	.35	.28
29FX790	4-142-Y	4	.54	.45	.36
29FX791	5-142-Y	5	.67	.56	.444
29FX792	6-142-Y	6	.79	.66	.524
29FX793	7-142-Y	7	.91	.76	.608
29FX794	8-142-Y	8	1.03	.86	.688
29FX795	9-142-Y	9	1.16	.97	.772
29FX796	10-142-Y	10	1.27	1.06	.848
29FX797	11-142-Y	11	1.40	1.17	.932
29FX798	12-142-Y	12	1.52	1.27	1.012
29FX799	13-142-Y	13	1.64	1.37	1.096
29FX800	14-142-Y	14	1.76	1.47	1.176
29FX801	15-142-Y	15	1.89	1.58	1.26
29FX802	16-141-Y	16	2.00	1.67	1.336
29FX803	17-142-Y	17	2.12	1.77	1.416

SOLDER TERMINALS FOR USE WITH SERIES 142 TERMINAL STRIPS

Stock No.	Mfr. No.	For Use With	NET EACH 1-499	500-999	1000-up
28FX793	3/4W-142	142	.04	.032	.029
28F799	W-142	142	.04	.032	.029
28F796	Y-142	142	.04	.032	.029

SERIES 162 FANNING STRIPS

Series 162. Fit 142 Series Barrier Strips. Brass, cadmium plated .032" terminals are mounted on 3/32" bakelite, 5/8" wide and on 9/16" mounting centers. Average shpg. wt., 3 oz.

Mounting holes on left.

Stk. No.	Type	Cont.	1-49	50-99	100-up
28F772	2-162-L	2	.11	.10	.076
28F773	3-162-L	3	.15	.13	.10
28F774	4-162-L	4	.19	.16	.128
28F775	5-162-L	5	.23	.20	.156
28F776	6-162-L	6	.28	.24	.188
28F777	7-162-L	7	.32	.27	.212
28F778	8-162-L	8	.37	.31	.244
28F779	9-162-L	9	.40	.34	.268
28F780	10-162-L	10	.45	.38	.30
28F781	11-162-L	11	.49	.41	.324
28F782	12-162-L	12	.53	.44	.352

Mounting holes on right.

Stk. No.	Type	Cont.	1-49	50-99	100-up
28F822	2-162-R	2	.11	.10	.076
28F823	3-162-R	3	.15	.13	.10
28F824	4-162-R	4	.19	.16	.128
28F825	5-162-R	5	.23	.20	.156
28F826	6-162-R	6	.28	.24	.188
28F827	7-162-R	7	.32	.27	.212
28F828	8-162-R	8	.37	.31	.244
28F829	9-162-R	9	.40	.34	.268
28F830	10-162-R	10	.45	.38	.30
28F831	11-162-R	11	.49	.41	.324
28F832	12-162-R	12	.53	.44	.352

MARKER STRIPS FOR USE WITH SERIES 142 BARRIER TERMINAL STRIPS

Strips are of 1/32" black fibre and have same mounting holes as barrier strips. Strips also serve as an insulator when mounted on a metal surface. Approx. shpg. wt., 2 oz.

Type MS-142

Stk. No.	Type	Cont.	1-49	50-99	100-up
29FX843	MS- 2-142	2	.06	.05	.04
29FX844	MS- 3-142	3	.07	.06	.046
29FX845	MS- 4-142	4	.08	.07	.053
29FX846	MS- 5-142	5	.09	.07	.059
29FX847	MS- 6-142	6	.10	.08	.066
29FX848	MS- 7-142	7	.11	.09	.072
29FX849	MS- 8-142	8	.12	.10	.078
29FX850	MS- 9-142	9	.13	.11	.084
29FX851	MS-10-142	10	.17	.14	.111
29FX852	MS-11-142	11	.18	.15	.117
29FX853	MS-12-142	12	.19	.15	.124
29FX854	MS-13-142	13	.20	.16	.13
29FX855	MS-14-142	14	.20	.17	.136
29FX856	MS-15-142	15	.24	.20	.162
29FX857	MS-16-142	16	.25	.21	.169
29FX858	MS-17-142	17	.26	.22	.175

JUMPER FOR USE WITH SERIES 142 BARRIER TERMINAL STRIPS

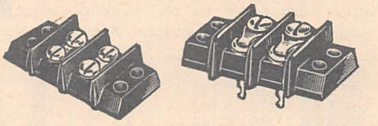
Stk. No.	Type	1-499	500-999	1000-up
28FX789	95B	.08	.07	.056

Cinch Jones

TERMINAL STRIPS & ACCESSORIES

SERIES 141 TERMINAL STRIPS AND ACCESSORIES

SERIES 141 AND 141-Y BARRIER TYPE TERMINAL STRIPS



Increased insulation by barriers placed between each terminal. Long leakage path prevents direct shorts from frayed wire at terminal Base: 1⅛" W. x ½" H. molded bakelite. Eyelets and binder head screws are brass, nickel plated. 6-32x¼" screw. Use with Series 161 Fanning Strips. Shpg. wt., 3 oz.

SERIES 141

Stk. No.	Type	Contacts	1-49	50-99	100-up
28F711	2-141	2	.19	.16	.124
28F712	3-141	3	.25	.21	.168
28F713	4-141	4	.32	.27	.216
28F714	5-141	5	.39	.33	.26
28F715	6-141	6	.45	.38	.30
28F716	7-141	7	.53	.44	.352
28F717	8-141	8	.59	.50	.396
28F718	9-141	9	.66	.55	.44
28F719	10-141	10	.73	.61	.488
28F720	11-141	11	.80	.67	.532
28F721	12-141	12	.86	.72	.576
28F878	13-141	13	.94	.78	.624
28F879	14-141	14	1.00	.84	.668
28F880	15-141	15	1.07	.89	.712
28F881	16-141	16	1.14	.95	.76
28F882	17-141	17	1.21	1.01	.804
28F883	18-141	18	1.27	1.06	.848
28F884	19-141	19	1.34	1.12	.896
28F885	20-141	20	1.41	1.18	.94

SERIES 141-Y

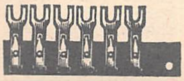
Same as 141 but with Thru-panel solder lugs.

29FX769	2-141-Y	2	.25	.21	.164
29FX770	3-141-Y	3	.34	.29	.228
29FX771	4-141-Y	4	.44	.37	.296
29FX772	5-141-Y	5	.54	.45	.36
29FX773	6-141-Y	6	.64	.54	.428
29FX774	7-141-Y	7	.74	.62	.492
29FX775	8-141-Y	8	.84	.70	.56
29FX776	9-141-Y	9	.94	.78	.624
29FX777	10-141-Y	10	1.04	.87	.692
29FX778	11-141-Y	11	1.13	.95	.756
29FX779	12-141-Y	12	1.24	1.03	.824
29FX780	13-141-Y	13	1.33	1.11	.888
29FX781	14-141-Y	14	1.43	1.20	.956
29FX782	15-141-Y	15	1.53	1.28	1.02
29FX783	16-141-Y	16	1.63	1.36	1.088
29FX784	17-141-Y	17	1.73	1.44	1.152
29FX785	18-141-Y	18	1.83	1.53	1.22
29FX786	19-141-Y	19	1.93	1.61	1.284
29FX787	20-141-Y	20	2.03	1.69	1.352

SOLDER TERMINALS FOR SERIES 141 BARRIER STRIPS

Stk. No.	Type	1-499	500-999	1000-up
28FX792	¾W-141	.03	.027	.024
28F798	W-141	.03	.027	.024
28F795	Y-141	.03	.027	.024

SERIES 161 FANNING STRIPS



Series 161. Fit Series 141 Barrier Strips. Brass, cadmium plated .032" terminals are mounted on 3/32" bakelite, ⅝" wide and on 7/16" ctrs. Ave. Shpg. wt., 3 oz.

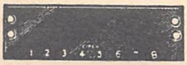
Mounting hole on left.

Stk. No.	Type	Contacts	1-49	50-99	100-up
28F761	2-161-L	2	.09	.08	.06
28F762	3-161-L	3	.14	.12	.092
28F763	4-161-L	4	.17	.15	.116
28F764	5-161-L	5	.22	.18	.144
28F765	6-161-L	6	.26	.22	.176
28F766	7-161-L	7	.31	.26	.204
28F767	8-161-L	8	.34	.29	.228
28F768	9-161-L	9	.38	.32	.256
28F769	10-161-L	10	.43	.36	.288
28F770	11-161-L	11	.47	.40	.316
28F771	12-161-L	12	.51	.43	.34

Mounting hole on right.

28F811	2-161-R	2	.09	.08	.06
28F812	3-161-R	3	.14	.12	.092
28F813	4-161-R	4	.17	.15	.116
28F814	5-161-R	5	.22	.18	.144
28F815	6-161-R	6	.26	.22	.176
28F816	7-161-R	7	.31	.26	.204
28F817	8-161-R	8	.34	.29	.228
28F818	9-161-R	9	.38	.32	.256
28F819	10-161-R	10	.43	.36	.288
28F820	11-161-R	11	.47	.40	.316
28F821	12-161-R	12	.51	.43	.34

MARKER STRIPS FOR USE WITH SERIES 141 BARRIER TERMINAL STRIPS



Strips are of 1/32" black fibre and have same mounting holes as barrier strips. Strips also serve as an insulator when mounted on a metal surface. Wt. 2 oz.

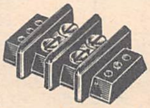
Stk. No.	Type	Contacts	1-49	50-99	100-up
29FX824	MS- 2-141	2	.06	.05	.038
29FX825	MS- 3-141	3	.06	.05	.043
29FX826	MS- 4-141	4	.07	.06	.048
29FX827	MS- 5-141	5	.08	.07	.053
29FX828	MS- 6-141	6	.09	.07	.058
29FX829	MS- 7-141	7	.09	.08	.063
29FX830	MS- 8-141	8	.10	.09	.068
29FX831	MS- 9-141	9	.11	.09	.073
29FX832	MS-10-141	10	.15	.12	.098
29FX833	MS-11-141	11	.15	.13	.103
29FX834	MS-12-141	12	.16	.14	.108
29FX835	MS-13-141	13	.17	.14	.113
29FX836	MS-14-141	14	.18	.15	.118
29FX837	MS-15-141	15	.22	.18	.144
29FX838	MS-16-141	16	.22	.19	.148
29FX839	MS-17-141	17	.23	.19	.154
29FX840	MS-18-141	18	.24	.20	.159
29FX841	MS-19-141	19	.28	.23	.184
29FX842	MS-20-141	20	.28	.24	.189

JUMPER FOR USE WITH SERIES 141 BARRIER TERMINAL STRIPS

Stk. No.	Type	1-499	500-999	1000-up
28FX790	141-J	.02	.018	.016

BARRIER TYPE TERMINAL STRIPS

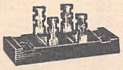
SERIES 150



Fits std. 50 amp solder lug for 6 Ga. stranded wire. Base: 1 13/16" W. x 25/32" H. Molded bakelite. Screws: 10-32x5/16" brass, burnished nickel plate. 11/16" mtg. ctrs.

Stk. No.	Type	Cont.	1-49	50-99	100-up
29FX731	2-150	2	.56	.47	.376
29FX732	3-150	3	.79	.66	.528
29FX733	4-150	4	1.03	.86	.684
29FX734	5-150	5	1.25	1.05	.836
29FX735	6-150	6	1.49	1.24	.992
29FX736	7-150	7	1.72	1.43	1.144
29FX737	8-150	8	1.95	1.63	1.30
29FX738	9-150	9	2.18	1.82	1.452
29FX739	10-150	10	2.41	2.01	1.608

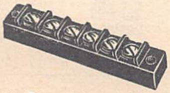
SERIES 170



Heavy .032" brass, tin plated Solder Terminal. Black molded Bakelite. 5/16" W. x ¼" H. Mtg. on ⅜" centers.

Stk. No.	Type	Cont.	1-49	50-99	100-up
29FX740	2-170	2	.20	.17	.132
29FX741	3-170	3	.23	.19	.152
29FX742	4-170	4	.27	.23	.18
29FX743	5-170	5	.32	.27	.212
29FX744	6-170	6	.35	.30	.236
29FX745	7-170	7	.38	.32	.256
29FX746	8-170	8	.42	.35	.28
29FX747	9-170	9	.47	.39	.312
29FX748	10-170	10	.50	.42	.332

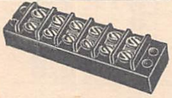
SERIES 171



Miniature 13/32" W.x 5/16"H. Single Screw Terminals. 2-56x¼" binder head screws. ⅛" Dia. Mtg. Holes, ¼" Mtg. Centers.

Stk. No.	Type	Cont.	1-49	50-99	100-up
28F901	2-171	2	.14	.12	.096
28F902	3-171	3	.20	.17	.132
28F903	4-171	4	.25	.21	.168
28F904	5-171	5	.31	.26	.204
28F905	6-171	6	.36	.30	.24
28F906	7-171	7	.41	.35	.276
28F907	8-171	8	.47	.39	.312

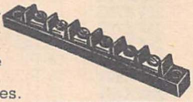
SERIES 172



Double screw terminals. ⅝" W. x 5/16" H. Mtg. on ¼" centers. 2-56x¼" binder head screws. ⅛" Dia. Mtg. holes.

Stk. No.	Type	Cont.	1-49	50-99	100-up
28F909	2-172	2	.34	.29	.228
28F910	3-172	3	.44	.37	.292
28F911	4-172	4	.53	.45	.356
28F912	5-172	5	.63	.53	.42
28F913	6-172	6	.72	.60	.48
28F914	7-172	7	.82	.68	.544
28F915	8-172	8	.91	.76	.608
28F916	9-172	9	1.01	.84	.672
28F917	10-172	10	1.10	.92	.736
28F918	11-172	11	1.21	1.09	.804
28F919	12-172	12	1.30	1.01	.868
28F920	13-172	13	1.39	1.16	.928
28F921	14-172	14	1.49	1.24	.992

SERIES 173



Single screw terminals. ⅜"Wx½"H. Mtg. on ⅜" centers. 4-40x5/16". Sems type Binder head screws. 5/32" Dia. Mtg. Holes.

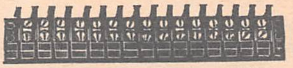
28F923	2-173	2	.18	.15	.12
28F924	3-173	3	.25	.21	.168
28F925	4-173	4	.32	.27	.216
28F926	5-173	5	.40	.33	.264
28F927	6-173	6	.47	.39	.312
28F928	7-173	7	.54	.45	.36
28F929	8-173	8	.61	.51	.408
28F930	9-173	9	.68	.57	.456
28F931	10-173	10	.76	.63	.504

WRITE FOR PRICES ON UNLISTED ITEMS

ELECTRICAL CONNECTING DEVICES

Cinch Jones

BARRIER STRIPS



Wider and higher barrier, heavier body with enclosed bottom. Webbing at base between barriers increases creepage distance from contact to ground and can be used for imprinting characters. Eliminates need for insulating and marker strips.

Series 540. 1 to 21 contacts. Base: 1⅛" wide, barrier: 1⅛" wide by ⅝" high, body 19⁄32" wide by 5⁄16" high. Web at base, 5⁄64" thick. 5-40x3⁄16" screw. Wt., 5 oz.

Stk. No.	Type	Terms.	1-49	50-99	100-up
28F1000	2-540	2	.16	.13	.104
28F1001	3-540	3	.22	.18	.144
28F1002	4-540	4	.28	.23	.184
28F1003	5-540	5	.34	.28	.224
28F1004	6-540	6	.39	.33	.26
28F1005	7-540	7	.45	.38	.30
28F1006	8-540	8	.51	.43	.34
28F1007	9-540	9	.57	.48	.38
28F1008	10-540	10	.63	.53	.42
28F1009	11-540	11	.68	.57	.452
28F1010	12-540	12	.74	.62	.492
28F1011	13-540	13	.80	.67	.532
28F1012	14-540	14	.86	.72	.576
28F1013	15-540	15	.92	.77	.616
28F1014	16-540	16	.98	.82	.656
28F1015	17-540	17	1.04	.87	.692
28F1016	18-540	18	1.10	.92	.732
28F1017	19-540	19	1.16	.97	.772
28F1018	20-540	20	1.21	1.01	.808
28F1019	21-540	21	1.27	1.06	.848
28F1064	22-540	22	1.34	1.11	.888
28F1065	23-540	23	1.39	1.16	.928
28F1066	24-540	24	1.45	1.21	.964
28F1067	25-540	25	1.51	1.26	1.004
28F1068	26-540	26	1.57	1.31	1.044
28F1069	27-540	27	1.63	1.36	1.084
28F1070	28-540	28	1.68	1.40	1.12
28F1071	29-540	29	1.74	1.45	1.16
28F1072	30-540	30	1.80	1.50	1.20
28F1073	31-540	31	1.86	1.55	1.24

Series 541. 2 to 30 contacts. Base: 1⅜" wide. Barrier: 1⅜" by 11⁄16" high. Body, ¾" wide by ⅜" high. Web 7⁄64" thick at base. 6-32x¼" screw. Shpg. wt. 5 oz.

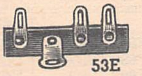
Stk. No.	Type	Terms.	1-49	50-99	100-up
28F1020	2-541	2	.20	.17	.136
28F1021	3-541	3	.28	.23	.184
28F1022	4-541	4	.35	.30	.236
28F1023	5-541	5	.43	.36	.288
28F1024	6-541	6	.50	.42	.332
28F1025	7-541	7	.58	.49	.388
28F1026	8-541	8	.65	.55	.436
28F1027	9-541	9	.73	.61	.484
28F1028	10-541	10	.80	.67	.536
28F1029	11-541	11	.88	.73	.584
28F1030	12-541	12	.95	.79	.632
28F1031	13-541	13	1.03	.86	.688
28F1032	14-541	14	1.10	.92	.736
28F1033	15-541	15	1.18	.98	.784
28F1034	16-541	16	1.25	1.05	.836
28F1035	17-541	17	1.33	1.11	.884
28F1036	18-541	18	1.40	1.17	.932
28F1037	19-541	19	1.48	1.23	.984
28F1038	20-541	20	1.55	1.30	1.036
28F1074	21-541	21	1.63	1.36	1.084
28F1075	22-541	22	1.70	1.42	1.132
28F1076	23-541	23	1.77	1.48	1.18
28F1077	24-541	24	1.85	1.54	1.232
28F1078	25-541	25	1.92	1.60	1.28
28F1079	26-541	26	1.99	1.66	1.328
28F1080	27-541	27	2.06	1.72	1.376
28F1081	28-541	28	2.14	1.78	1.424
28F1082	29-541	29	2.21	1.85	1.476
28F1083	30-541	30	2.29	1.91	1.524

Series 542. 2 to 26 contacts. Base: 1⅝" wide. Barrier: 1⅝" wide by ⅞" high. Body ⅞" wide by ½" high. Web at base: ⅛" thick. 8-32x5⁄16" screw. Shpg. wt., 5 oz.

28F1039	2-542	2	.24	.20	.16
28F1040	3-542	3	.34	.28	.224
28F1041	4-542	4	.43	.36	.288
28F1042	5-542	5	.52	.43	.344
28F1043	6-542	6	.61	.51	.404
28F1044	7-542	7	.71	.59	.472
28F1045	8-542	8	.79	.66	.528
28F1046	9-542	9	.88	.74	.588
28F1047	10-542	10	.98	.82	.656
28F1048	11-542	11	1.07	.89	.712
28F1049	12-542	12	1.16	.97	.776
28F1050	13-542	13	1.25	1.05	.836
28F1051	14-542	14	1.34	1.12	.896
28F1052	15-542	15	1.44	1.20	.96
28F1053	16-542	16	1.53	1.28	1.02
28F1054	17-542	17	1.62	1.35	1.08
28F1055	18-542	18	1.72	1.43	1.144
28F1056	19-542	19	1.81	1.51	1.204
28F1057	20-542	20	1.90	1.58	1.264
28F1058	21-542	21	1.99	1.66	1.328
28F1059	22-542	22	2.08	1.74	1.388
28F1060	23-542	23	2.17	1.81	1.448
28F1061	24-542	24	2.27	1.89	1.512
28F1062	25-542	25	2.36	1.97	1.572
28F1063	26-542	26	2.45	2.04	1.632

LUG TYPE TERMINAL STRIPS

Handy for supporting resistors, condensers. etc., in circuit wiring. Solder coated steel lugs on ⅜" centers with .140 mounting holes. Bakelite strips are 1⁄16" thick and ⅜" wide. Shpg. wt., 1 oz.



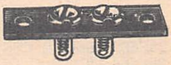
53E

Stock No.	C-J No.	Mfg. No.	Description	1-99	100 up
28F650	51	1510	2 Lugs	.09	.045
29FX567	51A	1510-A	2 Lugs	.09	.048
29FX568	51B	1513	2 Lugs	.09	.045
29FX569	51C	1513-A	2 Lugs	.09	.047
29FX570	51F	1512	2 Lugs	.09	.045
29FX573	51T	1514	2 Lugs	.10	.053
28F651	52	1520	3 Lugs	.11	.056
29FX574	52A	1520-A	3 Lugs	.11	.058
29FX575	52B	1525	3 Lugs	.11	.056
29FX576	52C	1525-A	3 Lugs	.11	.057
29FX578	52T	1522	3 Lugs	.15	.075
28F652	53	1530-C	5 Lugs Mtg Ctr 1½	.17	.086
29FX582	53E	1532	4 Lugs	.13	.067
29FX583	53F	1532-A	4 Lugs	.13	.068
29FX584	53T	1538-C	4 Lugs	.19	.098
28F653	54	1540	6 Lugs Mtg Ctr 1⅞	.19	.095
29FX585	54A	1540-A	6 Lugs Mtg Ctr 1⅞	.19	.098
29FX586	54B	1542	5 Lugs	.15	.076
29FX587	54C	1542-A	5 Lugs	.15	.078
28F654	55	1550	7 Lugs Mtg Ctr 2¼	.20	.102
29FX588	55A	1550-A	7 Lugs Mtg Ctr 2¼	.21	.105
29FX590	55C	1551-A	7 Lugs Mtg Ctr 1½	.21	.105
28F655	56	1563	8 Lugs Mtg Ctr 2⅝	.22	.11
29FX591	56A	1561-A	8 Lugs Mtg Ctr 2⅝	.22	.113
29FX593	56C	1560-A	8 Lugs Mtg Ctr 1⅞	.22	.113

Newark can supply all your Industrial Electronic needs.
Just write us your requirements.

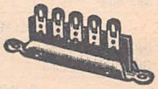
SCREW TYPE TERMINAL STRIPS

Ideal for breadboard layouts. Solder coated brass term. .136" dia. mtg. holes. 1-6 lug strips 1⁄16" bakelite, 7-10 lug strips, 3⁄32" bakelite. Screws are captive to prevent removal. Terminals spaced on 7⁄16" centers. Shpg. wt. 2 oz.



Stock No.	C-J No.	Mfg. No.	Description	1-99	100 up
29FX551	17-1	1787	1 Lug	.04	.02
29FX552	17-2	1781	2 Lugs	.07	.034
29FX553	17-3	1783	3 Lugs	.10	.048
29FX554	17-4	1774	4 Lugs	.12	.062
29FX555	17-5	1775	5 Lugs	.15	.077
29FX556	17-6	1776	6 Lugs	.18	.091
29FX557	17-7	1770	7 Lugs	.23	.113
29FX558	17-8	1780	8 Lugs	.26	.128
29FX559	17-9	1790	9 Lugs	.29	.143
29FX560	17-10	1799	10 Lugs	.32	.158

JONES "2000" TERMINALS



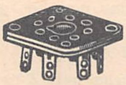
Bakelite insulation with cadmium steel brackets. Terminals are made of .019" tinned brass on 5⁄16" centers. Wt., 3 oz.

Stk. No.	Type	Term.	1-49	50-99	100 up
28F680	2002	2	.07	.06	.044
28F681	2003	3	.07	.06	.048
28F682	2004	4	.08	.07	.056
28F683	2005	5	.09	.08	.06
28F684	2006	6	.10	.09	.068
28F685	2007	7	.11	.09	.072
28F686	2008	8	.12	.10	.08
28F687	2009	9	.13	.11	.088
28F688	2010	10	.14	.12	.092
28F689	2011	11	.15	.13	.10
28F690	2012	12	.16	.13	.104
28F691	2013	13	.17	.14	.112

SOCKETS AND ACCESSORIES

ORDER ALL ELECTRONIC ACCESSORIES FROM NEWARK

WAFER-TYPE SOCKETS

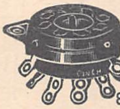


Made with highest-grade chocolate XP Bakelite, have solder-coated brass positive-grip contacts.

7-PIN SOCKET

Stk. No.	Type	Mfr. No.	Mtg. Ctr.	Mtg. Hole	1-99	100-up
29F723	7W2A	56B13345	⅞	.098	.07	.034
29F724	7WL2	56F712866	1	.098	.07	.034
29F725	7WL4	56F13043	1 5/16	.136	.08	.04
OCTAL TYPE						
29F726	8W1	6768	1 5/16	.136D	.08	.04
38F624	8W2	11C11961	1½	.136D	.08	.041
NOVAL TYPE						
29F727	9W1	45A13383	1⅛	.098D	.08	.042
29F728	9W2	45B16115	1 5/16	.136D	.09	.047

MOLDED TUBE SOCKETS



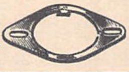
8AB

Cinch sockets are standard! Precision-engineered for rugged use. All-brass solder-coated contacts. *Black, **Chassis thickness, †Mica, ‡Ceramic.

MOLDED OCTAL 1-5/16" MOUNTING CENTERS

Stk. No.	Type	Mfr. No.	Mtg. Hole	1-99	100 up
38F670*	8AB	9905	.136 D.	.10	.05
38F671†	8AM	51A12272	.136 D.	.13	.063
MOLDED OCTAL 1½" MOUNTING CENTERS					
38F672*	8EB	9977	.143 D.	.10	.051
29F688‡	8EC	115001-3	.143 D.	.45	.30
38F673†	8EM	51B11936	.140 D.	.13	.065
RING MOUNT OCTAL					
29F689*	8R1	9884	1/16"**	.19	.093
29F690*	8R2	51E12495	⅛"**	.19	.093
29F691†	8R3	51E12596	1/16"**	.22	.110
29F692*	8R4	51E12953	3/32"**	.19	.093
29F693†	8R5	51E12954	3/32"**	.22	.110
29F694†	8R6	51E12597	⅛"**	.22	.110
29F695	8R0	Retainer ring, as used on above sockets		.03	.017

ADAPTER PLATE



Type 8AP. For use alone or in conjunction with above 8R1-8R6 Ring Mount Octal Sockets and 8R0 Retainer Ring.

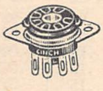
Stk. No.	Type	Mfr. No.	1-49	50-99	100-up
29F696	8AP	1003-P24	.05	.04	.032

MIL-12883A MOLDED-TYPE OCTAL SOCKETS

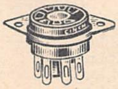
Molded from mica-filled low loss bakelite. Silver plated phosphor bronze contacts with hot tinned tails. Heavy brass saddle nickel plated with 4 ground lug hot tinned. Mounting centers 1½ in. 8JC-2 and 8JCN-2 are ceramic. 8JM-2 and 8JMN-2 are mica.

Stk. No.	Type	MIL No.	Mtg. Hole	1-99	100-up
29F663	8JC-2	TS101C01	.156 Dia.	.86	.429
29F664	8JCN-2	TS101C02	6-32 Tap	1.08	.54
29F665	8MN-2	TS101P01	.156 Dia.	.42	.212
29F666	8JMN-2	TS101P02	6-32 Tap	.65	.324

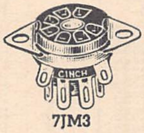
MINIATURE SOCKETS



7AB1



7EB



7JM3

7 PIN MINIATURE SOCKETS—MOLDED SADDLE TOP MOUNT

Stk. No.	Type	Mfr. No.	Description	1-99	100-up
38F633	7AB1	53C12601	Black	.09	.047
38F634	7AM1	53C12636	Mica	.11	.056
7 PIN—MOLDED SADDLE TYPE—BOTTOM MOUNT					
38F636	7EB	53C12136	Black	.09	.047
38F637	7EM	53C12360	Mica-Filled	.11	.056
7 PIN—SHIELDED BASE—MIL-12883A					
29F657	7JC-2	TS102C01	Ceramic	.37	.185
29F658	7JC-3	TS102C03	Ceramic	.39	.196
29F659	7JCN-1	TS102C02	Ceramic	.39	.196
29F660	7JM-2	TS102P01	Mica	.27	.137
29F661	7JM-3	TS102P03	Mica	.24	.12
29F662	7JMN-1	TS102P02	Mica	.26	.129
7 PIN—SHIELD BASE TYPE					
38F674	7XB1	53B13724	Black	.17	.085
38F675	7XM1	53B13723	Mica-Filled	.19	.096
38F676	7XC	53B12363	Ceramic	.33	.165

9 PIN SOCKETS

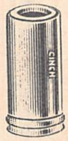
9 PIN MOLDED MINIATURE SOCKETS—SADDLE TYPE TOP MOUNT

Stk. No.	Type	Mfr. No.	Description	1-99	100-up
38F677	9AB	44C12642	Black	.12	.062
38F678	9AM	44C12644	Mica-Filled	.14	.072
9 PIN MOLDED SADDLE TYPE BOTTOM MOUNT					
38F679	9EB	44C12641	Black	.12	.062
38F680	9EM	44C12617	Mica-Filled	.14	.072
9 PIN MINIATURE SOCKETS—SHIELD BASE TYPE					
38F681	9XB	44B12826	Black	.21	.104
38F682	9XM	44B12625	Mica	.23	.113
38F683	9XC	44B13503	Ceramic	.36	.179

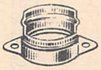
9 PIN SOCKETS WITH SHIELD BASE (MIL-12883A)

Stock No.	Type	MIL No.	Mtg. Hole	Mtg. Ctrs.	1-99	100-up
29F667‡	9JC-2	TS103C01	.125D	......	.41	.206
29F668‡	9JC-3	TS103C03	.125D	⅞"	.41	.207
29F669‡	9JCN-1	TS103C02	.125D	......	.41	.207
29F670*	9JM-2	TS103P01	.125D	......	.30	.149
29F671*	9JM-3	TS103P03	.125D	⅞"	.26	.128
29F672*	9JMN-1	TS103P02	.125D	......	.26	.128

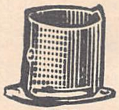
*mica, ‡ceramic



7S1



7SB3



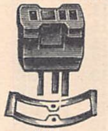
7SB1

MINIATURE TYPE SHIELDS AND SHIELD BASES

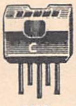
7 PIN—TUBE SHIELD—SNAP-ON TYPE

Stk. No.	Type	Mfr. No.	Description	1-99	100-up
29F681	7S1	13C12322-P24	1 " High 1 53/64" High	.09	.045
7 PIN SHIELD BASES FOR SNAP-ON TYPE					
29F687	7SB3	20K12323-P24	1 1/32" High	.03	.017
7 PIN—TUBE SHIELDS—"J" SLOT TYPE					
29F682	7S2	8660P24	1⅜" Long	.11	.055
29F683	7S3	8661P24	1¾" Long	.12	.058
29F684	7S4	13A12564-P24	2¼" Long	.18	.089
TUBE SHIELDS—"J" SLOT TYPE (JAN S-28A)					
29F673	7SJ2-1	TS102U01	7-pin 1⅜" L.	.17	.086
29F674	7SJ3-1	TS102U02	7-pin 1¾" L.	.19	.096
29F675	7SJ4-1	TS102U03	7-pin 2¼" L.	.21	.107
7 PIN SHIELD BASES FOR "J" SLOT TYPE					
29F685	7SB1	1050P24	⅝" High Steel	.05	.027
29F686	7SB2	1093AP34-2	⅝" High Brass	.07	.036
TUBE SHIELDS WITH "J" SLOT					
29F697	9S1	13B12626-P24	1½" Long	.16	.082
29F698	9S2	13B12627-P24	1 15/16" Long	.16	.082
29F699	9S3	13B12628-P24	2⅜" Long	.30	.15
SHIELD BASE FOR 9 PIN WAFER OR SADDLE TYPE					
29F700	9SB1	20K13979-P24	1⅛" Mtg. Ctrs.	.07	.036
9 PIN TUBE SHIELD "J" SLOT (JAN-S-28A)					
29F676	9SJ1-1	TS103U01	1½" L.	.21	.105
29F677	9SJ2-1	TS103U02	1 15/16" L.	.23	.116
29F678	9SJ3-1	TS103U03	2⅜" L.	.25	.126

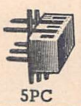
MICA-FILLED SUB-MINIATURE SOCKETS



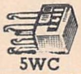
2H3



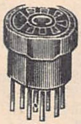
2H5



5PC



5WC



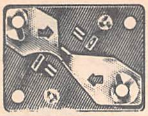
8SM

Stk. No.	Type	Mfr. No.	Description	1-99	100-up
38F639	2H3*	46A20928	3 prong	.21	.104
38F630	2H5*	46A11953	5 prong	.22	.112
38F631	2H6*	46A11955	6 prong	.30	.149
38F632	2H7*	46A11957	7 prong	.31	.155
38F628	5WC	46A14148	5 prong	.38	.188
38F629	8SM*	46A13686	8 prong	.42	.21
29F716	5PC	47A14273	5 prong	.40	.198
29F718	8SMP	46B14513	8 prong	.54	.27
29F719	2MR	20K13702	Mtg. ring for 8SM	.02	.009

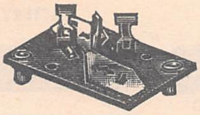
*Mounting Ring included

PLUGS, SOCKETS AND ACCESSORIES

TRANSISTOR SOCKETS



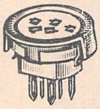
2TS-1



2TS-2

Stk. No.	Type	Mfr. No.	Description	1-99	100-up
38F684	2TS-1	14T24324	6-20 Threaded Mtg. Holes	.10	.049
38F685	2TS-2	14T24860	Unthreaded Eyelets for Mtg.	.11	.050

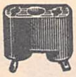
NUVISTOR SOCKET FOR TWELVAR BASE



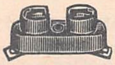
Fastens to chassis by two tabs, which are an integral part of the metal saddle retaining tube socket body. Tabs are rolled against chassis underside. When properly fastened, resists min. pull of 20 lbs. For chassis .032 inches to .082 inches.

Stk. No.	Type	1-99	100-up
29F730	133-65-10-001	.14	.069

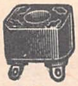
CRYSTAL SOCKETS



2KB



2K1B

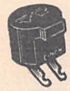


2K4

Stk. No.	Type	Mfg. No.	Mtg. Ctrs.	1-99	100-up
29F705*	2KB	9827	2-prong**	.15	.075
29F706†	2KM	9816	2-prong**	.17	.084

**31/64" Mtg. Ctrs.

CETRON TUBE SOCKET



Designed for use in such applications as electric eye doors and motion picture projectors. Contacts spring brass.

Stk. No.	Type	Mfr. No.	Descrip.	1-99	100-up
29FX652	2B2	54A13430	Black	.72	.36
29FX653	2M2	54A17315	Mica	1.05	.525

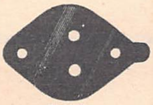
STRAP NUTS

29F679	7SN	1060P24	For 7-pin Min.	.17	.084
29F680	9SN	20K14167-P-24	For 9-pin Min.	.18	.092

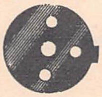
RETAINER RING

29F695	8R0	1018P24	.020 Spr. Steel	.03	.017

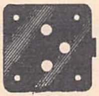
HEAT SINKS



2W-1



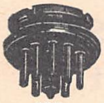
2W-2



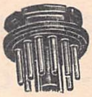
2W-3

Stk. No.	Type	Mfr. No.	Description	1-49	50-99	100-up
29FX654	2W1	294457	For Mot. 2N-179, 2N-176, 2N-554	.25	.21	.168
29FX655	2W2	294665	For Delco 2N174			
29FX656	2W3	294666	For Tex. Inst. 2N-389			

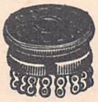
MOLDED CONNECTOR PLUGS AND SOCKETS



8RB



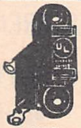
11PB



11RB

Stk. No.	Type	Mfr. No.	Contacts	1-99	100-up
29FX701	8PB	54B16021	8 plugs	.20	.098
29FX702	11PB	54B13795	11 plugs	.26	.129
29FX703	11RB	54A13783	11 sockets	.26	.131

110-250 VOLT 2 PRONG SOCKET

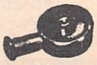


2R2

2R2. Rated at 15 amps 110V or 10 amps at 259V. Molded from high dielectric black bakelite. Mounts in 25/64x25/32" hole. .144 diam. mtg. holes on 1⅛" centers. Shpg. wt. 4 oz.

39F394	2R2	54A12844	.19	.095

SECOND ANODE CONNECTOR

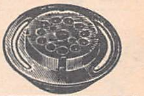


3A1

3A1. For diheptal based tubes. Snaps over .096 diam. prong on side of diheptal tubes. Shpg. wt. 4 oz.

29FX649	3A1	8657P24	.45	.30

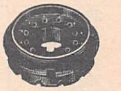
TV PICTURE TUBE SOCKETS



3M11. Mica socket. Magnal—11 prong. For use wits 5BP1, 2AP1, 1P21, 931A, and 3KP1 type CR tubes. Micra-filled low loss bakelite. Shpg. wt., 3 oz.

3R11. Steel mounting ring for above.

Stk. No.	Type	Mfr. No.	1-49	50-99	100-up
29FX711	3M11	9452-11	3.60	3.00	2.40
29FX712	3R11	1009P24	.24	.20	.16



3M12. Mica socket. Duodecal—12 prong. For use with 10BP4, 2BP1, 5TP4, etc. Tube types. Also RCA 6199 tube with JAN NO. B12-43. Mica-filled low loss bakelite. Shpg. wt. 3 oz.

3B12. Same as above but high dielectric black bakelite.

29FX714	3M12	9470-12	1.44	1.20	.96
29FX713	3B12	9464-12	.48	.40	.32

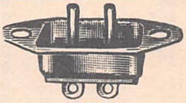
3M14. Mica socket. Diheptal—14 prong. For RCA 6217, 5819 photo tubes and Jetec No. B12-37. Mica-filled low loss bakelite. 2 7/32w.x1⅛h. Shpg. wt. 3 oz.

3B14. Same as above but high dielectric black bakelite.

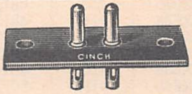
3R14. Steel mounting ring for above.

29FX715	3B14	9462-14	.84	.70	.56
39F390	3M14	9463-14	1.08	.90	.72
39F391	3R14	8593P24	.24	.20	.16

TV PLUGS



2RP



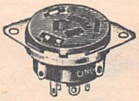
2FP

Type 2RP. Recessed sub-panel mounting type plug. UL approved for 125 volts 7 amps. 1¼" mtg. centers. Length 1⅝", width ⅝", depth ¼". Shpg. wt. 4 oz.

Type 2FP connector plug. Two prongs mounted on 1/16" Bakelite, 1⅝"x¾". .135 mounting holes are on 1¼" centers.

Stk. No.	Type	Mfr. No.	1-99	100-up
36F881	2RP-1	15M14684	.07	.037
29FX619	2FP	15F17982	.05	.026

CAPACITOR "PLUG IN" SOCKETS



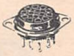
2C5. Designed for use with Mallory and Magnavox 1" FP type condensers. Molded black bakelite. Steel mounting saddle has 4 ground lugs. 1½" mtg. ctr. Mtg. hole diam. .140". Shpg. Wt. 5 oz.

2C7. Designed for use with Mallory and Magnavox 1⅜" FP type condensers. Molded black bakelite. Steel saddle has 1 27/32" mtg. ctr. Mtg. hole diam. .156". Shpg. Wt. 5 oz.

Stk. No.	Type	Mfr. No.	1-99	100-up
29FX549	2C5	54A11523	.44	.218
29FX550	2C7	54A11897	.50	.248

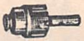
RELAY SOCKET

14 Contact, mica, 1¼" mtg. ctr.

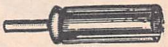


Stk. No.	Type	Mfr. No.	1-99	100-up
29FX710	14RS	54A14775	.74	.369

PLUGS



13A



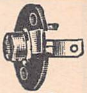
13B

13A. Phono plug. Nickel plated ⅛ in. dia. tube pin. 9/16 in. L. Use with 81A and 81B phono jacks. Shpg. wt. 3 oz.

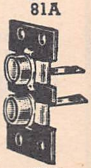
13B. Motorola type antenna plug. Nickel plated ⅛ tube extends 17/32 in. from cadmium plated split brass shell. Use with 81C or 81F connector. Shpg. wt. 4 oz.

Stk. No.	Type	Mfr. No.	1-99	100-up
39F796	13A	1336	.08	.039
39F396	13B	1320	.17	.086

PHONO JACKS



81A



81B

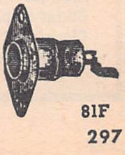
81A. Single prong positive grip phono jack mounted on 1/16" chocolate bakelite disc with 11/16" mtg. centers. Use 13A phono plug with this jack. Shpg. wt. 4 oz.

81G. Similar to above but has ceramic bushing and three laminated bakelite insulation plates with brass mtg. plates.

81B. Two positive grip phono jacks mtg. on 1/16" bakelite panel with -3/16" mtg. centers. Jacks are spaced on ½" centers. Panel size: 1½x½". Use 13A phono plug with this jack. Shpg. wt. 4 oz.

39F797	81A	14H20604	.13	.063
39F795	81B	8113	.22	.113

ANTENNA CONNECTOR



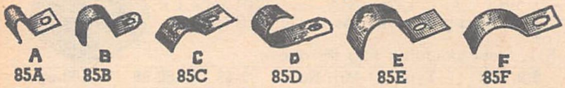
81F

81F. Motorola type shielded jack. Steel flange with 15/16" mtg. centers. Mfg. holes .136 dia. Use 13B antenna plug with this jack. Shpg. wt. 4 oz.

81C. Same as 81F except without flange.

39F395	81F	8611	.127	.063
29F624	81C	8609	.08	.038

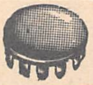
CABLE CLAMPS



Cadmium plated steel. Av. shpg. wt. 2 oz. Figs. A, B, C, D, E, F.

Stk. No.	Type	Mfg. No.	Dia. of Arc	1-4999	5M-up
29FX627	85A	1065P24	⅛"	.01	.009
29FX628	85B	1051P24	5⁄16"	.01	.007
29FX629	85C	8545P24	5⁄16"	.01	.008
29FX630	85D	8339P27	5⁄16"	.01	.006
29FX631	85E	8522P24	½"	.01	.006
29FX632	85F	292-LP24	⅝"	.01	.006

PLUG BUTTONS

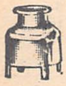


Used to cover holes in metal, wood, fibre, etc. Nickel plated steel. Av. Shpg. wt. 2 oz.

Stock No.	Type	Mfg. No.	Hole Diam.	1-4999	5M-up
29FX633	41A	48151P34	¼"	.02	.016
29FX634	41B	48192P34	⅜"	.02	.016
29FX635	41C	48152P34	½"	.02	.016
29FX636	41D	48172P34	⅝"	.02	.016
29FX637	41E	51026P34	¾"	.02	.016
29FX638	41F	48155P34	⅞"	.03	.02
29FX639	41G	48143P34	1"	.04	.024
29FX640	41H	50726P34	1¼"	.06	.04
29FX641	41V	99522P24	*	.12	.08

* Screen Type for 1" diam. hole.

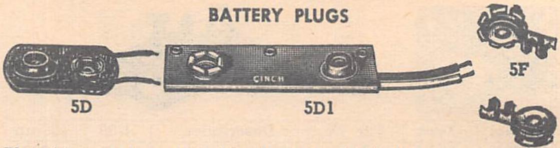
PLUG CAP



Type 18A-1. Cadmium plaed steel shell with rolled edge on 5⁄16" diameter neck opening. Outside diameter at base .625. Four ⅛" prongs coincide with notches on plugs. Designed for use with Cinch No. 5A1 and 5B1A type battery plugs.

Stk. No.	Type	Mfg. No.	Descript'n	1-99	100-up
29FX612	18A-1	16A20377P24	For 5A1, 5B1, 5AB2 5AB3	.02	.009

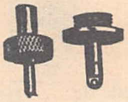
BATTERY PLUGS



Plated brass pin mounted on laminated bakelite.

Stock No.	Type	Mfg. No.	Voltage	1-99	100-up
39F830	5A1	2744	1½ "A"	.06	.03
39F833	5A4	2793	6 "A"	.06	.028
39F834	5A5	M-77	7½ "A"	.13	.065
39F835	5B1A	2730	45 "B"	.05	.027
39F839	5M	52384	67½ "B"	.05	.032
39F840	5F	52383	67½ "B"	.05	.032
39F829	5D	155113	45 "B"	.27	.18
39F842	5D1	155112	67½ "B"	.27	.18
39F843	5D2	155104	90 "B"	.27	.18
39F841	5MFA	153965	67½ "B"	.27	.18

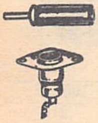
SERIES 101 PLUGS AND SOCKETS



Entire 101 series of plugs are identical except for cable ferrule which is furnished in five sizes as shown. S-101D socket is similar to S-101 for cable ferrule which is furnished in five sizes except bakelite is recessed in base. S-101-D-Mod. is same as S-101-D except two sides of the base are milled.

Stock No.	Type	1-49	50-99	100-up
39F398	P-101-¼"	.52	.44	.348
29FX500	P-101-.290"	.64	.53	.424
29FX501	P-101-5⁄16"	.64	.53	.424
39F397	P-101-⅜"	.64	.53	.424
29FX502	P-101-½"	.71	.59	.472
39F399	S-101	.46	.39	.308
29FX503	S-101-D	.71	.59	.472
239FX504	S-101-D-Mod.	.71	.59	.472

ANTENNA CONNECTOR & PLUG



Shielded jack has flange with 15⁄16" mtg. ctrs. and .136 dia. mtg. holes. Mounts with screws or rivets. Plug has ⅛" nickel-plated tube pin extending 17⁄32" from cadmium-plated brass shell. 3 oz.

39F395. Type 81F. Socket.

1-99	.22
100-up	.108

39F396. Type 13B. Plug.

1-99	.17
100-up	.086

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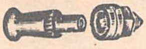
PLUGS AND CONNECTORS

SUPERCON ELECTRICAL CONNECTORS

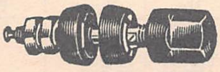


Supercon flexible soldered or solderless plugs and receptacles. Color designated by the last 1 or 2 letters of th etype no. (B) Black, (Y) Yellow, (R) Red, (BL) Blue, (GM) Green and (WT) White.

Stock No.	Type	Description	1-19	20-99	100-199
6F048	RS25GB	25 amp Socket Receptacles	1.75	1.40	1.23
6F049	RS25GY				
6F050	RS25GR				
6F051	RS25GBL				
6F052	RS25GGN				
6F053	RS25GWT				
6F060	PP25GB	25 amp Pin Plugs	1.30	1.04	.91
6F061	PP25GY				
6F062	PP25GR				
6F063	PP25GBL				
6F064	PP25GGN				
6F065	PP25GWT				
6F000	RS50GB	50 amp Socket Receptacles	2.50	2.00	1.75
6F001	RS50GY				
6F002	RS50GR				
6F003	RS50GBL				
6F004	RS50GGN				
6F005	RS50GWT				
6F030	PP50GB	50 amp Pin Plugs	2.00	1.60	1.40
6F031	PP50GY				
6F032	PP50GR				
6F033	PP50GBL				
6F034	PP50GGN				
6F035	PP50GWT				
6F036	PS100GB	100 amp Socket Plugs	2.50	2.00	1.75
6F037	PS100GY				
6F038	PS100GR				
6F039	PS100GBL				
6F040	PS100GGN				
6F041	PS100GWT				
6F018	RP100GB	100 amp Pin Receptacles	3.00	2.40	2.10
6F019	RP100GY				
6F020	RP100GR				
6F021	RP100GBL				
6F022	RP100GGN				
6F023	RP100GWT				
6F672	PS250GB	250 amp Socket Plugs	3.65	2.92	2.56
6F673	PS250GY				
6F674	PS250GR				

Stock No.	Type	Description	1-19	20-99	100-199
6F054	RP25GB	25 amp Pin Receptacles	1.75	1.40	1.23
6F055	RP25GY				
6F056	RP25GR				
6F057	RP25GBL				
6F058	RP25GGN				
6F059	RP25GWT				
6F066	PS25GB	25 amp Socket Plugs	1.30	1.04	.91
6F067	PS25GY				
6F068	PS25GR				
6F069	PS25GBL				
6F070	PS25GGN				
6F071	PS25GWT				
6F024	PS50GB	50 amp Socket Plugs	2.00	1.60	1.40
6F025	PS50GY				
6F026	PS50GR				
6F027	PS50GBL				
6F028	PS50GGN				
6F029	PS50GWT				
6F006	RP50GB	50 amp Pin Receptacles	2.50	2.00	1.75
6F007	RP50GY				
6F008	RP50GR				
6F009	RP50GBL				
6F010	RP50GGN				
6F011	RP50GWT				
6F012	RS100GB	100 amp Socket Receptacles	3.00	2.40	2.10
6F013	RS100GY				
6F014	RS100GR				
6F015	RS100GBL				
6F016	RS100GGN				
6F017	RS100GWT				
6F042	PP100GB	100 amp Pin Plugs	2.50	2.00	1.75
6F043	PP100GY				
6F044	PP100GR				
6F045	PP100GBL				
6F046	PP100GGN				
6F047	PP100GWT				
6F675	PS250GB	250 amp Pin Receptacles	3.65	2.92	2.56
6F676	PS250GY				
6F677	PS250GR				

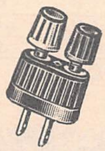
GOLD PLATED 5-WAY BINDING POSTS



Can mount and lock in any panel from 1⁄16" to 1⁄4" thick. For permanent clamping, spade lug, clip-lead, banana plug, or looping and clamping. Shaft has 1⁄8" solder tip and 0.098" dia. wire holes. Full molded nylon insulation. Rated: 1000V., 30 amp. Gold-plated metal parts. Shpg. wt., 1 oz.

No.	Type	Color	1-99	100-900
5F760	DF30BC	Black	40c	30c
5F761	DF30BLC	Blue		
5F762	DF30RC	Red		
5F763	DF30GNC	Green		
5F764	DF30WTC	White		
5F765	DF30YC	Yellow		

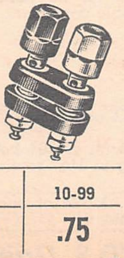
● *NEW* DUAL ADAPTER 5-WAY BINDING POST



Dual Adapter 5-way Binding Posts are designed to facilitate line voltage conections from output receptacles to binding posts. Ideally suited for applications using DUB-L-Plug Dual Electrical Connectors and other connectors designed for mating with binding posts on 3⁄4 inch centers. Rated for 15 amps, 125 volts. The five ways to connect to the binding posts permit wide use flexibility. Finely machined brass parts are gold plated. for stable electrical contact and resistance to corrosion. Plastic parts provide complete insulation. Shaft holes flush with brass cores in body accommodate up to size No. 12 wire. Thumbnuts color coded for circuit and polarity identification. Shpg. wt., 2 oz.

6F078. Type DAP15BWC. NET Each 1-9........1.50. 10-99........1.13.

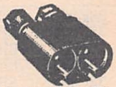
● *NEW* DOUBLE ASSEMBLY 5-WAY BINDING POSTS



Double assembly 5-Way Binding Posts incorporate many new electrical and mechanical features that make them exceptionally well suited for use on instrument and equipment panels requiring binding posts mounted on 3⁄4 inch centers. Has gold plated brass parts, color-coded hex-shaped thumbnuts, Low-loss Lexan insulators, and five ways to make connections. Captive thumbnuts available in three color-coding combinations. Insulators black.

Stk. No.	Type	Color Thumbnut	1-9	10-99
6F085	DF30-2-BWTC	White & Black	1.00	.75
6F086	DF30-2-BBC	Black & Black		
6F087	DF30-2-BRC	Red & Black		

INSULATED DUB-L-PLUG DUAL CONNECTOR

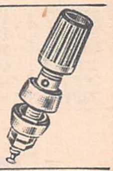


Ideal for making rapid connections in power circuits and other electronic and electrical applications. All metal parts are recessed for max. safety. Design permits stacking of several DUB-L-PLUGS if desired. Nylon body is supplied in six colors with color coded captive thumbnuts. Color designated by last letters of the type numbers: (B) Black; (Y) Yellow; (R) Red; (BL) Blue; (GN) Green; and (WT) White.

Stk. No.	Type	1-9	10-99
5F771	SPGK2BC*	4.50	3.38
5F772	IPG2RC	2.50	1.88
5F773	IPG2WTC		
5F774	IPG2BLC		
5F797	IPG2YC		
5F798	IPG2GNC		
5F799	IPG2BC		

***SPG Series, shielded/insulated.**

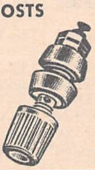
● *NEW* MINIATURE 5-WAY BINDING POSTS



Has all the features of the standard size 5-Way binding posts. Rated for 15 amps and 1000 working volts. Nylon plastic parts are compounded to meet Mil Spec. MIL-P-20693, type IV. Available with fluted thumbnut only.

Stk. No.	Type	Color	1-99	100-900
6F079	DF21RC	Red	.40	.30
6F080	DF21WTC	White		
6F081	DF21BC	Black		
6F082	DF21BLC	Blue		
6F083	DF21YC	Yellow		
6F084	DF21GNC	Green		

● *NEW* FLUTED NUT 5-WAY BINDING POSTS



These are the original 5-Way Binding Posts in a new, functionally styled, fluted nut design. Made from Lexan polycarbonate resin with gold plated brass contacts. Fluted Binding Posts are rated at 30 amps and a working voltage of 1000 volts. Lexan provides low loss and power factor, low dielectric constant; high voltage insulation; high impact strength over a broad range from less than —100°F to +275°F.

Stk. No.	Type	Color	1-99	100-900
6F088	DF31RC	Red	.40	.30
6F089	DF31BLC	Blue		
6F090	DF31GNC	Green		
6F091	DF31WTC	White		
6F092	DF31BC	Black		
6F093	DF31YC	Yellow		

AMPHENOL ALL PURPOSE TUBE SOCKETS

NEWARK STOCKS COMPLETE LINES

MINIATURE SOCKETS

A

B

147 series mount in 5/8" chassis hole and have 7/8" mounting centers with 1/8" screw holes. 59 series mount in 3/4" chassis hole and have 1 1/8" mounting centers with .095" rivet holes. Shpg. wt. 2 oz.

BOTTOM-MOUNTING TYPE—FIG. A.

Stock No.	Type	Insul.	Pins	1-49	50-249	250-499	500-999	1M-2499
38F870	147-500	Bakelite	7	.21	.177	.15	.134	.12
38F872	147-505	Mica	7	.22	.178	.151	.135	.121
38F873	59-409	Bakelite	9	.27	.22	.186	.166	.149
38F874	59-410	Mica	9	.26	.21	.181	.161	.144

TOP-MOUNTING TYPE—FIG. B (Tube Shield Base included)

Stock No.	Type	Insul.	Pins	1-49	50-249	250-499	500-999	1M-2499
38F875	147-905	Bakelite	7	.28	.23	.196	.175	.157
38F877	147-913	Mica	7	.28	.23	.199	.178	.159
38F878	59-407	Mica	9	.36	.30	.25	.23	.20
38F879	59-406	Bakelite	9	.32	.27	.23	.20	.181

MINIATURE TUBE SHIELDS

For 7 and 9 pin miniature sockets above. Steel shell, cadmium plated. Shpg. wt., 2 oz.

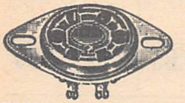
Stock No.	Type	Height	For	1-49	50-249	250-499	500-999	1M-2499
38F880	5-401	1 3/8"	7 pin	.16	.129	.109	.098	.087
38F881	5-402	1 3/4"	7 pin	.15	.127	.108	.096	.086
38F882	5-405	1 1/2"	9 pin	.14	.114	.097	.086	.077
38F883	5-408	1 15/16"	9 pin	.19	.158	.134	.12	.108
38F884	5-409	2 3/8"	9 pin	.23	.193	.164	.146	.131

FLOATING SOCKET

Type 77-MIP-8FK. Vibration proofed octal socket to eliminate microphonics. Has live rubber grommets, mounting screws, nuts and washers. Mounts in 1 3/16" holes on 1 1/2" ctrs. Shpg. wt., 5 oz.

Stock No.	1-49	50-249	250-499	500-999	1M-2499
38F855	.32	.26	.22	.199	.178

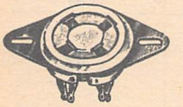
TYPE RS SOCKETS



Molded bakelite replacement sockets. Removable adapter plate permits replacement of wafer sockets. Slotted mtg. holes to fit centers from 1 1/2 to 1 7/8". Shpg. wt., 2 oz.

Stock No.	Type	Prongs	1-49	50-249	250-499	500-999	1M-2499
38F800	78RS4	4	.18	.15	.127	.114	.102
38F801	78RS5	5	.20	.163	.139	.124	.111
38F802	78RS6	6	.21	.17	.144	.129	.115
38F803	78RS7S	7S	.22	.18	.153	.136	.122
38F806	78RS8	Octal	.20	.163	.139	.124	.111
38F807	78RS8L	Loktal	.27	.22	.189	.169	.151
38F808	78RS9	9	.23	.186	.158	.141	.127
38F809	78RS11	11	.25	.21	.175	.156	.14

TYPE RSS STEATITE SOCKETS



Low-loss steatite for high frequency transmitters, amplifiers and power supplies. Ideal for use in high temperatures. Mtg. hole, 1 3/16" except (*) 1 21/64". Universal removable mounting plate with slotted holes. Shpg. wt., 3 oz.

38F860	49RSS4	4	.62	.51	.43	.39	.35
38F861	49RSS5	5	.64	.53	.45	.40	.36
38F862	49RSS6	6	.62	.51	.43	.39	.35
38F863	49RSS7S	7 small	.70	.58	.49	.44	.39
38F864	*49RSS7L	7 large	.68	.56	.48	.43	.38
38F865	49RSS8	Octal	.62	.51	.43	.39	.35

TYPE MIP SOCKETS

High dielectric bakelite body with molded in steel plate. *Requires 1 1/8" hole for mounting. **Requires 1 9/32" hole. All others mount in 1 5/32" hole. †Mica-filled phenolic socket. Shpg. wt., 2 oz.

Stock No.	Type	Prongs	1-49	50-249	250-499	500-999	1M-2499
38F840	77MIP4	4	.14	.116	.098	.088	.078
38F841	77MIP5	5	.15	.127	.108	.096	.086
38F842	77MIP6	6	.18	.147	.125	.111	.10
38F843	77MIP7S	7S	.19	.16	.136	.121	.109
38F844	**77MIP7L	7L	.19	.16	.136	.121	.109
38F845	77MIP8	Octal	.16	.13	.111	.099	.088
38F839	†77MIP8T	Octal	.19	.157	.133	.119	.106
39F1244	†77MIP11T	11	.21	.177	.15	.134	.12
38F846	*88-8	Octal	.17	.139	.118	.105	.094
38F847	*88-8X	Loktal	.22	.182	.154	.138	.123
38F848	77MIP9	9	.18	.15	.127	.114	.102
38F849	77MIP11	11	.21	.177	.15	.134	.12
38F850	77MIP12	12	.21	.177	.15	.134	.12
39F149	77MIP20	20	.54	.45	.38	.34	.30

TYPE S SOCKETS

Retainer ring sockets. For easy assembly to chassis or panel from 19 gauge (.044") to 16 gauge (.062") with tempered steel retainer ring. High di-electric molded bakelite. Rotation feature permits lining up contacts. All mount in 1 11/64" to 1 7/32" hole. With retainer. Wt., 2 oz.

38F810	78S4	4	.13	.107	.091	.081	.073
38F811	78S5	5	.14	.116	.098	.088	.078
38F812	78S6	6	.16	.13	.111	.099	.088
38F813	78S7S	7 small	.17	.137	.116	.104	.093
38F816	78S8	Octal	.15	.127	.108	.096	.086
38F817	78S9	9	.18	.147	.125	.139	.10
38F818	78S8L	Loktal	.22	.183	.155	.111	.124
38F819	78-A7P	7 min.	.34	.28	.24	.22	.193
38F820	78-A9P	9 min.	.34	.28	.24	.21	.19
38F821	78-S11	11	.20	.167	.141	.126	.113

MINIATURE RETAINER RING SOCKETS

For installation in compact electronic equipment. Black molded bakelite bodies. Mount in 5/8" round or "D" shaped hole with ring provided. 78-5P mounts in 1/2" hole. Wt., 2 oz.

Stock No.	Type	Pins	1-49	50-249	250-499	500-999	1M-2499
38F825	78-S3S	3	.09	.078	.066	.059	.053
38F826	78-S4S	4	.12	.101	.085	.076	.068
38F827	78-S5S	5	.16	.129	.109	.098	.087
38F828	78-S6S	6	.17	.137	.116	.104	.093
38F830	78-7P	7	.22	.18	.153	.136	.122

CATHODE-RAY TUBE SOCKETS

Type 59-402. Duodecal socket for cathode-ray tubes with 12 equally spaced pins on circle dia. of 1.063". Bakelite body, removable cap.

Stock No.	1-49	50-249	250-499	500-999	1M-2499
38F901	.86	.71	.60	.54	.48

MAGNAL 11-CONTACT SOCKET

Type 49-SS11L. Has 1 1/16" pin circle for C-R tubes with magnal 11-prong base. Made of low-loss steatite. Has steel retaining ring for quick assembly. Requires 1 5/8" mounting hole.

Stock No.	1-49	50-249	250-499	500-999	1M-2499
38F900	.86	.71	.60	.54	.48

INDUSTRIAL SOCKETS

146-103 146-104

146-105 146-109

77A-4T

146-817

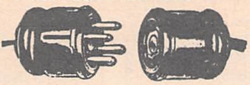
146-101

146-121

Stk. No.	Type	Description	Wt.	1-24	25-99	100-249	250-499	500-999
38F930	146-103	8 contact standard socket without tie point inserts top mounted. Molded in one piece of Melamine. Removable contacts.	8 oz.	1.44	1.19	1.01	.90	.81
38F931	146-104	8 contact socket with 4 molded-in treaded inserts for tie points. Top mounted. Molded in one piece of Melamine. Removable contacts.	8 oz.	1.76	1.45	1.23	1.10	.99
38F933	146-203	Same as 146-103 above except bottom mounted.	8 oz.	1.44	1.19	1.01	.90	.81
38F934	146-204	Same as 146-104 above except bottom mounted.	8 oz.	1.76	1.45	1.23	1.10	.99
38F928	146-105	4 contact bracket type. For jumbo 4 pin tubes.	6 oz.	3.84	3.17	2.69	2.40	2.15
39F1246	146-109	4 contact bracket type. For UX4-pin tubes.	6 oz.	3.88	3.20	2.72	2.43	2.17
39F1247	146-817	11 contact socket with 4 molded-in threaded inserts.	10 oz.	3.64	3.00	2.55	2.28	2.04
38F920	146-101	High Voltage Octal Socket. For 5Y4-G, 5u4-G, 6L6-G and others. Molded Melamine. Underwriters shield. 2.031" mtg. ctrs.	2 oz.	.88	.73	.62	.55	.49
38F921	77A-4T	4 Contact High Voltage Safety Socket. For tubes with 1.156" base dia. such as rectifiers and others. Top or bottom mounting in 1 1/2" round holes. 5/32" diam. mtg. holes on 1 7/8" ctrs.	4 oz.	.60	.50	.42	.38	.34
38F932	146-121	Photo Tube Socket. For cartridge type photo tubes. Made of one piece, molded bakelite, mica filled. Nickel plated brass contacts.	5 oz.	NET 1.80				

CONNECTORS, RECEPTACLES & PLUGS AMPHENOL

TYPE 86-PM SHIELDED MULTI-WIRE CONNECTORS



Consists of Amphenol "S" type sockets or "CP" plug and snap-on black steel caps with rubber grommets. Takes cable up to $\frac{7}{16}$" dia. Size, $1\frac{3}{16}$x$1\frac{3}{32}$". Wt., 2 oz.

MALE (Without Cap)

Stk. No.	Type	Contacts	1-49	50-249	250-499	500-999	1000-2499
39F120	86-PM4	4	.36	.30	.25	.23	.20
39F121	86-PM5	5	.37	.30	.26	.23	.21
39F122	86-PM6	6	.38	.31	.27	.24	.21
39F123	86-PM7S	7S	.39	.32	.27	.24	.22
39F125	86-PM8	8 oct.	.39	.32	.27	.24	.22
39F126	86-PM9	9	.40	.33	.28	.25	.22
39F127	86-PM11	11	.42	.35	.29	.26	.24
42F025	86-PM12	12	.44	.36	.31	.28	.25
42F026	86-PM20	20	.62	.51	.43	.39	.35

FEMALE (Without Cap)

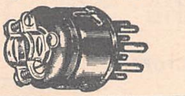
Stk. No.	Type	Contacts	1-49	50-249	250-499	500-999	1000-2499
39F140	78-PF4	4	.32	.27	.23	.20	.18
39F141	78-PF5	5	.33	.27	.23	.21	.185
39F142	78-PF6	6	.35	.29	.24	.22	.194
39F143	78-PF7S	7S	.35	.29	.25	.22	.198
39F145	78-PF8	8 oct.	.34	.28	.24	.21	.192
39F146	78-PF9	9	.37	.30	.26	.23	.21
39F147	78-PF11	11	.39	.32	.27	.24	.22

Stk. No.	Type	Description	1-49	50-249	250-499	500-999	1000-2499
42F017	3-13	Cap. with end grommet	.13	.104	.088	.079	.071
42F018	3-17	Cap. with side grommet	.17	.142	.12	.108	.096
42F019	3-24	Cap. with cable clamp	.19	.153	.13	.116	.104

CAPS AND CABLE CLAMPS

Stk. No.	Type	Description	1-49	50-249	250-499	500-999	1000-2499
39F150	79-CC4	Cable Clamp	.11	.091	.077	.069	.062

MULTI-WIRE CONNECTORS WITH CABLE CLAMPS



All specifications are as above, but with high quality cable clamps. Takes cable up to $\frac{7}{16}$" dia. Size, $1\frac{3}{16}$x$1\frac{3}{32}$". Shpg. wt. 3 oz.

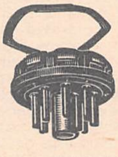
MALE

Stk. No.	Type	Contacts	1-49	50-249-	250-499	500-999	1000-2499
42F000	86-PM4-11	4	.42	.35	.29	.26	.24
42F001	86-PM5-11	5	.42	.35	.29	.26	.24
42F002	86-PM6-11	6	.44	.36	.31	.28	.25
42F003	86-PM7S-11	7S	.44	.36	.31	.28	.25
42F005	86-PM8-11	8	.44	.36	.31	.28	.25
42F006	86-PM9-11	9	.46	.38	.32	.29	.26
42F007	86-PM11-11	11	.48	.40	.34	.30	.27
42F027	86-PM12-11	12	.50	.41	.35	.31	.28

FEMALE

Stk. No.	Type	Contacts	1-49	50-249	250-499	500-999	1000-2499
42F009	78-PF4-11	4	.38	.32	.27	.24	.22
42F010	78-PF5-11	5	.39	.32	.27	.24	.22
42F011	78-PF6-11	6	.40	.33	.28	.25	.22
42F012	78-PF7S-11	7S	.42	.35	.29	.26	.24
42F014	78-PF8-11	8	.40	.33	.28	.25	.22
42F015	78-PF9-11	9	.42	.35	.29	.26	.24
42F016	78-PF11-11	11	.46	.38	.32	.29	.26

"CP" PLUGS



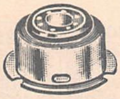
Quickly and easily installed without screws or rivets by means of Amphenol retainer rings. Can be assembled in any one of the plug caps or receptacle shells. Ideal for use as chassis connectors, with plug-in units. Plugs with 4, 5, 6 and 7 contacts do not have center guide post. Current rating is 5 amps except (†) 3 amps. (*) Mica filled phenolic. Size: 1¾x$\frac{7}{16}$". Wt. 2 oz.

Stk. No.	Type	Contacts	1-49	50-249	250-499	500-999	1000-2499
42F030	86-CP4	4	.17	.14	.119	.106	.095
42F031	86-CP5	5	.18	.147	.125	.111	.10
42F032	86-CP6	6	.19	.158	.134	.12	.108
42F033	86-CP7S	7 small	.20	.165	.14	.125	.112
42F034	86-CP8	8 octal	.20	.165	.14	.125	.112
42F035	86-CP8T*	8	.21	.172	.146	.13	.116
42F036	86-CP9	9	.21	.173	.147	.131	.118
42F037	86-CP11	11	.24	.198	.168	.15	.134
42F038	86-CP12†	12	.25	.20	.172	.154	.138

STEEL MOUNTING SHELLS

Type 23-1S extends $1\frac{3}{16}$" above or below chassis. Mounts in 1¾" hole. 3 notch holes for #6 screws. Type 61-61 recesses $1\frac{3}{16}$" only. Mounts in $1\frac{7}{16}$" hole. Two $\frac{5}{32}$" screw holes on 1¾" center. Shpg. wt. 5 oz.

61-61

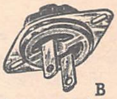


23-1S

Stock No.	Type	1-49	50-249	250-499	500-999	1000-2499
39F1242	23-1S	.14	.117	.009	.089	.08
39F1243	61-61	.11	.094	.08	.071	.064

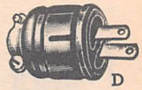
RECEPTACLES AND PLUGS

A



B

C



D

Mount on or below panels, or with cable terminals. Rated 110 volts, 15 amps or 250 volts, 10 amps. Bakelite insulation. Retainer ring types require $1\frac{11}{64}$" hole. Mounting plate types require $1\frac{9}{32}$" hole & mounting centers, slotted 1½" to 1⅞"; recessed shell types require 1⅜" hole with mounting centers, 1¾". Two pole female receptacles take standard or polarized plugs. Fig. A, with retainer ring, Fig. B, with removable mounting plate. Fig. C, with recessed shell. Fig. D, with shielded cable clamp. U.L. Approved. Av. shpg. wt., 3 oz.

Stk. No.	Poles	Descrip.	Fig.	Type	1-49	50-249	250-499	500-999	1000-2499
39F100	2	Fem. univ.	A	61-F	.27	.22	.186	.166	.149
39F101	3	Fem. Pol.	A	60-F	.32	.26	.22	.199	.178
39F102	2	Male Std.	A	61-M	.29	.24	.20	.179	.16
39F103	2	Male Pol.	A	61-MP	.29	.24	.20	.179	.16
39F104	3	Male Pol.	A	60-M	.37	.30	.26	.23	.20
39F110	2	Fem. Univ.	C	61-F10	.44	.36	.31	.28	.25
39F111	2	Male Std.	C	61-M10	.44	.36	.31	.28	.25
39F112	2	Male Pol.	C	61-MP10	.44	.36	.31	.28	.25
39F105	2	Fem. univ	B	61-F1	.32	.26	.22	.199	.178
39F106	3	Fem. Pol.	B	60-F1	.37	.30	.26	.23	.21
39F107	2	Male Std.	B	61-M1	.33	.27	.23	.21	.185
39F108	2	Male Pol.	B	61-MP1	.34	.28	.24	.21	.188
39F109	3	Male Pol.	B	60-M1	.42	.35	.29	.26	.24
39F113	2	Fem. Univ.	D	61-F11	.52	.43	.36	.33	.29
39F114	2	Male Std.	D	61-M11	.54	.45	.38	.34	.30
39F115	2	Male Pol.	D	61-MP11	.54	.45	.38	.34	.30
39F116. Type 61-M1P-61F. Molded-in plate receptacle. Takes all 2 pole					.28	.23	.199	.178	.159

MINIATURE CABLE CONNECTORS

For cables up to six conductors. Bakelite elements are housed in cadmium plated brass shells. Plugs are $1\frac{3}{16}$" long. Chassis units mount on 1¼" centers. Fig. E are female plugs. Fig. F are male plugs. Fig. G are female shielded chassis units. Wt., 2 oz.

E

F

G

91 SERIES

Stk. No.	Type	Fig.	Cont.	1-24	25-99	100-249	250-499	500-999
39F080	91-MPF3L	E	3	.38	.31	.27	.24	.21
39F082	91-MPM3L	F	3	.35	.29	.24	.22	.194
39F084	91-MPM5L	F	5	.39	.32	.27	.24	.22
39F081	91-MPF4L	E	4	.42	.35	.29	.26	.24
39F083	91-MPM4L	F	4	.35	.29	.25	.22	.198
39F085	91-MPM6L	F	6	.42	.35	.29	.26	.24

78 SERIES

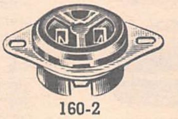
Stk. No.	Type	Fig.	Cont.	1-49	50-249	250-499	500-999	1000-2499
39F090	78-PCG3	G	3	.20	.168	.143	.128	.114
39F092	78-PCG5	G	5	.24	.20	.171	.153	.137
39F091	78-PCG4	G	4	.24	.20	.169	.151	.136
39F093	78-PCG6	G	6	.29	.24	.20	.18	.161

RECTANGULAR PLUGS AND SOCKETS

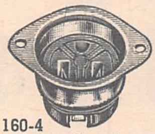
Molded of black bakelite with molded-in mounting plate. Type 70-26 is plug; 77-26 is a socket. Wt., 3 oz.

Stk. No.	Type	Pins	1-49	50-249	250-499	500 999	1000-2499
39F165	70-26	4	.11	.094	.08	.071	.064
39F166	77-26	4	.23	.186	.158	.141	.127

2-POLE GROUNDING TYPE RECEPTACLES AND PLUGS



160-2



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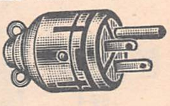


160-9

Rated 15 amps, 110 volts. Mtg. Ctr. A mount in $1\frac{9}{32}$" dia. center hole and two $\frac{5}{32}$" holes on 1½" to $1\frac{55}{64}$" centers. Mtg. Ctr. B mount in $1\frac{7}{16}$" hole; two $\frac{5}{32}$" screw holes on 1¾" centers. Mtg. Ctr. C $\frac{7}{16}$" I.D. grommet or clamp to ⅜" O.D. Mtg. Ctr. D meets MIL-M-14F req. Mount in $1\frac{11}{64}$" keyed hole. Wt. 3 oz. * w/Grommet. † w/Clamp.

Stk. No.	Type	Description	Mtg. Ctr.	1-24	25-99	100-249	250-499	500-999
39F1230	160-2	Fem. MIP	A	.72	.59	.50	.45	.40
39F1231	160-3	Male MIP	A	1.12	.92	.78	.70	.63
39F1232	160-4	Fem. Flush Mtr.	B	.82	.68	.57	.51	.46
39F1233	160-5	Male Flush Mtr.	B	1.22	1.01	.85	.76	.68
39F1234	*160-6	Fem. Shl'd	C	.82	.68	.57	.51	.46
39F1235	*160-7	Male Shl'd	C	1.18	.97	.83	.74	.66
39F1236	†160-8	Fem. Shl'd	C	.88	.73	.62	.55	.49
39F1237	†160-9	Male Shl'd	C	1.26	1.04	.88	.79	.71
39F1238	160-10	Fem. Insert	D	.60	.50	.42	.38	.34
39F1239	160-11	Male Insert	D	1.10	.91	.77	.69	.62

AMPHENOL CONNECTORS

TYPE 126 RACK AND PANEL CONNECTORS

Cable units have protective can and clamp. Each connector accommodates No. 16 and No. 20 wire. Molded of mica-filled phenolic. Silver-plated brass male contacts, silver-plated beryllium copper female contacts. Gold flash on all contacts. Rated at 500 volts, 60 cycles AC. Wt., 3 oz.

Stock No.	Mfrs. Type	Total	Contacts #16	Contacts #20	Description	1-9	10-49	50-99	100-249
39F050	126-804	11	2	9	Chassis plug	1.06	.80	.64	.53
39F051	126-805	11	2	9	Chassis socket	1.15	.88	.69	.58
39F052	126-809	11	2	9	Cable plug	2.00	1.53	1.21	1.00
39F053	126-808	11	2	9	Cable socket	2.09	1.60	1.26	1.05
39F054	126-151	11	3	12	Chassis plug	2.04	1.56	1.24	1.03
39F055	126-150	15	3	12	Chassis socket	1.80	1.38	1.10	.91
39F056	126-152	15	3	12	Cable plug	3.24	2.48	1.96	1.63
39F057	126-153	15	3	12	Cable socket	3.00	2.30	1.82	1.51
39F058	126-806	20	4	16	Chassis plug	1.76	1.35	1.06	.88
39F059	126-807	20	4	16	Chassis socket	1.48	1.13	.89	.74
39F060	126-811	20	4	16	Cable plug	3.24	2.48	1.96	1.63
39F061	126-810	20	4	16	Cable socket	3.05	2.34	1.85	1.53

MINIATURE CONNECTORS

Completely new series for interconnecting miniature electronic equipment. Designed to cover a wide range of applications by use of interchangeable nickel-plated, brass hardware and non-corrosive, gold-finished contacts. Bodies are molded of new Amphenol 1-501 dielectric, bases are silver-plated. For No. 20AWG or No. 22 JAN-C-76 wire. Has ⅝" threaded body with hex nut for panel mounting. Shpg. wt., 2 oz.

Stock No.	Mfr. Type	Contacts	Description	1-9	10-49	50-99	100-249
42F100	126-010	5	Chassis Plug	.77	.59	.47	.39
42F101	126-011	5	Chassis Socket	1.26	.99	.78	.65
42F104	126-191	7	Chassis Plug	.92	.70	.55	.46
42F105	126-192	7	Chassis Socket	1.48	1.13	.89	.74
42F102	126-012	9	Chassis Plug	1.08	.83	.65	.54
42F103	126-013	9	Chassis Socket	2.00	1.53	1.21	1.00
42F108	126-1063	Hood and clamp assembly		.73	.56	.44	.37
42F109	126-1064	Locking sleeve for cord conn.		.38	.29	.23	.19
42F110	126-1069	Clip retainer for chassis unit.		.05	.04	.03	.02

WITH LOCKING CLIP

Stk. No.	Mfr. Type	Cont.	Desc.	1-9	10-49	50-99	100-249
42F112	126-214	4	Plug	1.08	.83	.65	.54
42F113	126-216	5	Plug	.82	.63	.50	.41
42F114	126-218	5	Socket	1.34	1.03	.81	.67
42F115	126-197	7	Plug	.97	.74	.58	.48
42F116	126-198	7	Socket	1.53	1.17	.92	.77
42F117	126-219	9	Plug	1.15	.88	.70	.58
42F118	126-221	9	Socket	2.04	1.57	1.23	1.03

WITH HOOD AND CLAMP

Stk. No.	Mfr. Type	Cont.	Desc.	1-9	10-49	50-99	100-249
42F119	126-215	4	Socket	1.79	1.37	1.08	.90
42F120	126-217	5	Plug	1.88	1.44	1.14	.94
42F121	126-223	5	Socket	2.40	1.84	1.45	1.20
42F122	126-195	7	Plug	2.04	1.57	1.23	1.03
42F123	126-196	7	Socket	2.58	1.98	1.56	1.30
42F124	126-220	9	Plug	2.21	1.69	1.33	1.10
42F125	126-222	9	Socket	3.10	2.38	1.87	1.56

MICRO-CONNECTORS

MICRO-MIN CONNECTORS

The smallest connectors for use with micro-miniature circuitry. Contacts are on .05" centers, with 0.40" spacing between contacts. Contact material is .010" beryllium copper, gold over silver plated. Dielectric material is glass-filled diallyl phthalate to MIL-M-19833 spec. Size: 1$\frac{5}{16}$"L, .335"D. Wt. 1 oz.

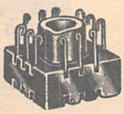
Stk. No.	Type	Descriptions	1-9	10-49	50-99	100-249
39F1351	74-101	19 cont. mtg. board	4.64	3.87	3.09	2.78
39F1352	74-102	19 cont. receptacle	6.82	5.69	4.54	4.09
39F1353	74-103	38 cont, plug adap.	9.32	7.78	6.20	5.59
39F1354	74-104	38 cont, receptacle	11.66	9.74	7.75	7.00

MICRO-EDGE WIRING RECEPTACLE

Type 64-15. 15 contact microminiature printed circuit, printed wiring receptacle. "Fold-back" construction with contacts on .075" centers. Two terminations per contact. Smooth, rounded configuration won't injure or scrape delicate circuits. Dielectric material is glass-filled diallyl phthalate to MIL-M-19833, Type GDI-30. Contacts are .010" beryllium copper, gold-over-silver plated. Separate leads for each contact. Size: 1.400"L, .243"D, .167"W. Wt., 1 oz.

39F1350. 1-9 Ea...................**7.26** **10-49 Ea.**..............................**6.06**

50-99 Ea...............................**4.83** **100-249 Ea.**..............................**4.36**



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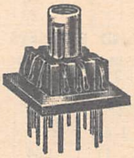

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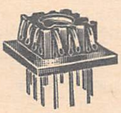
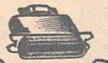
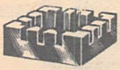


96-3

57-30360





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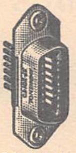

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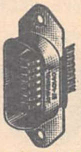

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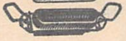


57-40360

MICRO-MOD CONNECTORS

Micro-Mod connectors for modular or "stick" circuitry. Have unique double-spring design contacts with elastic reserve. Contacts, on .075" centers, are made of .010" beryllium copper wire, gold-over-silver plated. Micro-Mod connectors have durable glass-filled diallyl phthalate dielectric. The 96-4 plug mates with 96-3 receptacle, which is supplied without contacts (the module leads form the female contacts). This pair is recommended for modular or "stick" applications that have AWG #28 module leads (.012"). The 96-1 receptacle and 96-2 plug with polarizing key are supplied with contacts. The plug has a cadium-plated molded-in brass polarizing key while the receptacle has a base and a keyway. This version can be used for cable-to-chassis, cable-to-cable, or modular applications. Dimensions: Model 96-1 Receptacle .380" sq. x .170" H; Model 96-2 plug .380" sq. x .742" H; Model 96-3 Receptacle .380" sq. x .130" H; Model 96-4 Plug .380" sq. x .577" H. Av. Wt., .03 oz.

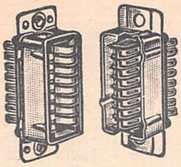
Stk. No.	Type	Descriptions	1-9	10-49	50-99	100-249
39F1355	96-1	12 cont, pol, receptacle	3.05	2.53	2.01	1.82
39F1356	96-2	12 cont, pol, plug	6.30	5.26	4.19	3.78
39F1357	96-3	12 contact receptacle	.54	.45	.36	.32
39F1358	96-4	12 contact plug	5.40	4.51	3.59	3.24

MICRO-RIBBON® CONNECTORS

57 Series. Molded of diallyl phthalate. Contacts are gold plated over silve. Shells are cadmium plated brass. Float bushings allow a float of .020. Voltage rating: 5 amps; 700 V at sea level, 200 V at 70,000 feet altitude. *Cable-to-chassis plug. †Latch-type receptacle. Wt., 1 oz.

Stk. No.	Type	Cont.	Descrip.	1-9	10-49	50-99	100-up
42F190	57-10140	14	Male	1.71	1.28	1.03	.92
42F193	57-20140	14	Female	1.76	1.32	1.05	.95
42F191	57-10240	24	Male	2.27	1.70	1.36	1.22
42F194	57-20240	24	Female	2.29	1.72	1.38	1.24
42F192	57-10360	36	Male	2.60	1.95	1.56	1.40
42F195	57-20360	36	Female	2.62	1.97	1.57	1.42
42F126	57-30140*	14	Male	2.82	2.12	1.69	1.52
42F127	57-40140†	14	Female	2.11	1.58	1.27	1.14

Stk. No.	Type	Cont.	Descrip.	1-9	10-49	50-99	100-up
42F128	57-30240*	24	Male	3.15	2.36	1.89	1.70
42F129	57-40240†	24	Female	2.53	1.90	1.52	1.37
42F130	57-30360*	36	Male	3.44	2.58	2.07	1.86
42F131	57-40360†	36	Female	2.71	2.03	1.63	1.46
42F132	57-10500	50	Male	3.33	2.50	2.00	1.80
42F133	57-20500	50	Female	3.40	2.55	2.04	1.84
42F134	57-30500*	50	Male	4.24	3.18	2.55	2.29
42F135	57-40500†	50	Female	3.51	2.63	2.11	1.90



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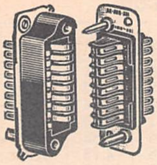

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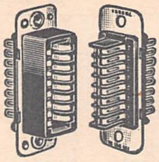

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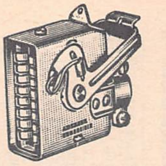

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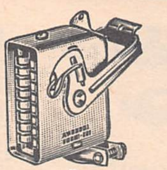

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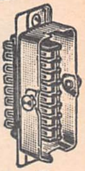


F

AMPHENOL BLUE RIBBON® CONNECTORS

Barrier polarization type connectors are designed for interconnecting electronic sub-assemblies, circuit switching, rerouting and other multi-contact applications. Interlocking design of mating dielectric bodies provide positive polarization. The dimensional stability and high tensile strength of Amphenol "Blue" dielectric make this type of polarization possible. Float mounted receptacle corrects misalignment of plug and receptacle. Corrosion resistant, stainless steel molded-in mounting plates and housing. Rated: 5 amps, 800 volts DC at sea level, 300 volts at 70,000 ft. altitude. Av. Shpg. Wt., 3 oz.

(A) BARRIER POLARIZATION CONNECTORS WITH KEYED SHELLS

Male

Stk. No.	Type	Con.	1-9	10-49	50-99	100-up
42F182	26-4101-8P	8	2.01	1.51	1.20	1.09
42F183	26-4101-16P	16	3.00	2.25	1.79	1.63
42F184	26-4101-24P	24	3.47	2.60	2.08	1.88
42F185	26-4101-32P	32	3.99	2.99	2.39	2.16

Female

Stk. No.	Type	Con.	1-9	10-49	50-99	100-up
42F186	26-4201-8S	8	2.30	1.72	1.37	1.25
42F187	26-4201-16S	16	3.13	2.35	1.87	1.70
42F188	26-4201-24S	24	3.73	2.80	2.23	2.02
42F189	26-4201-32S	32	4.36	3.27	2.61	2.36

(B) PIN POLARIZATION TYPE CONNECTORS

Male

Stk. No.	Type	Con.	1-9	10-49	50-99	100-up
39F132	26-159-16	16	2.05	1.55	1.23	1.12
39F134	26-159-24	24	2.48	1.86	1.48	1.34
39F136	26-159-32	32	2.92	2.19	1.75	1.58

Female

Stk. No.	Type	Con.	1-9	10-49	50-99	100-up
39F133	26-190-16	16	2.58	1.94	1.54	1.40
39F135	26-190-24	24	3.11	2.33	1.86	1.68
39F137	26-190-32	32	3.66	2.74	2.18	1.98

(C) BARRIER POLARIZATION TYPE CONNECTORS

Male

Stk. No.	Type	Con.	1-9	10-49	50-99	100-up
39F130	26-182	8	1.16	.82	.66	.59
42F150	26-4100-8P	8	1.82	.76	.61	.55
42F151	26-4100-16P	16	1.91	1.43	1.14	1.03
42F152	26-4100-24P	24	2.27	1.70	1.36	1.23
42F153	26-4100-32P	32	2.66	1.99	1.59	1.44

Female

Stk. No.	Type	Con.	1-9	10-49	50-99	100-up
39F131	26-183	8	1.75	1.31	1.05	.95
42F154	26-4200-8S	8	1.67	1.25	1.00	.91
42F155	26-4200-16S	16	2.40	1.80	1.44	1.30
42F156	26-4200-24S	24	2.90	2.17	1.73	1.57
42F157	26-4200-32S	32	3.42	2.56	2.04	1.85

(D) CABLE TYPE—END OUTLET—KEYED LOCK SHELLS

Mate with 4401 series plugs and sockets.

Male

Stk. No.	Type	Con.	1-9	10-49	50-99	100-up
42F158	26-4301-8P	8	5.14	3.85	3.07	2.79
42F159	26-4301-16P	16	6.45	4.83	3.85	3.49
42F160	26-4301-24P	24	7.23	5.42	4.32	3.92
42F161	26-4301-32P	32	8.04	6.02	4.81	4.36

Female

Stk. No.	Type	Con.	1-9	10-49	50-99	100-up
42F162	26-4301-8S	8	5.80	4.34	3.46	3.14
42F163	26-4301-16S	16	6.94	5.20	4.15	3.76
42F164	26-4301-24S	24	7.86	5.89	4.70	4.26
42F165	26-4301-32S	32	8.80	6.59	5.26	4.77

(E) CABLE TYPE—SIDE OUTLET—KEYED LATCH LOCK SHELLS

Mate with 4401 Series plugs and sockets.

Male

Stk. No.	Type	Con.	1-9	10-49	50-99	100-up
42F174	26-4501-8P	8	5.14	3.85	3.07	2.79
42F175	26-4501-16P	16	6.45	4.83	3.85	3.49
42F176	26-4501-24P	24	7.78	5.82	4.64	4.18
42F177	26-4501-32P	32	8.65	6.47	5.16	4.65

Female

Stk. No.	Type	Con.	1-9	10-49	50-99	100-up
42F178	26-4501-8S	8	5.80	4.34	3.46	3.14
42F179	26-4501-16S	16	6.94	5.20	4.15	3.76
42F180	26-4501-24S	24	7.86	5.89	4.70	4.26
42F181	26-4501-32S	32	9.46	7.08	5.64	5.08

(F) CHASSIS TYPE—KEYED LATCH—LOCK SHELLS

Mate with 4301 and 4501 Series plugs and sockets.

Male

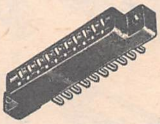
Stk. No.	Type	Con.	1-9	10-49	50-99	100-up
42F166	26-4401-8P	8	3.11	2.33	1.86	1.68
42F167	26-4401-16P	16	4.10	3.07	2.45	2.22
42F168	26-4401-24P	24	4.60	3.44	2.75	2.49
42F169	26-4401-32P	32	5.12	3.83	3.06	2.77

Female

Stk. No.	Type	Con.	1-9	10-49	50-99	100-up
42F170	26-4401-8S	8	3.76	2.82	2.25	2.04
42F171	26-4401-16S	16	4.62	3.46	2.76	2.50
42F172	26-4401-24S	24	5.22	3.91	3.12	2.83
42F173	26-4401-32S	32	5.85	4.38	3.49	3.17

PRINTED CIRCUIT CONNECTORS

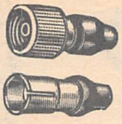
Series 143—For Printed Circuits. Printed Cir. contacts will formfit any standard .055" to .073" board. Contacts function effectively after repeated insertions, without any appreuiable fatigce of the uontaut taking place. Millivolt drop at 2 amps is approx. 5 millivolts. Long spring base of the contact prevents "setting". Gold flash over albaloy assures longer life, better electrical characteristics.. Feature compact bodies molded of an improved version of diallyl phthalate dielectric, and a new contact that is greatly superior to any currently available for printed circuit applications. Card insertion depth, .333". Height, .458". Spacing is .156". Is polarized with 143-953 key.



Stock No.	Type No.	Cont.	1-9	10-49	50-99	100-249	250-499	500-999	1000-2499
42F304	143-006-01	6	1.53	1.19	.95	.85	.70	.67	.64
42F300	143-010-01	10	1.05	.82	.65	.59	.48	.46	.44
42F301	143-015-01	15	1.35	1.05	.84	.76	.62	.59	.57
42F302	143-018-01	18	1.63	1.27	1.01	.91	.75	.72	.68
42F303	143-022-01	22	1.83	1.42	1.13	1.02	.84	.80	.77
42F306	143-022-02	22	1.98	1.54	1.22	1.11	.91	.87	.83
42F305	143-953	Polarizing Key	.02	.02	.02	.018	.016	.014	.012

SERIES 133, MATES FOR SERIES 143—Double-Tail Solder Type

Stock No.	Type No.	Cont.	1-9	10-49	50-99	100-249	250-499	500-999	1000-2499
42F307	133-006-03	6	2.15	1.68	1.33	1.20	.99	.95	.90
42F196	133-066-21	6	2.20	1.72	1.36	1.23	1.01	.97	.92
42F136	133-010-21	10	2.50	1.95	1.55	1.40	1.15	1.10	1.05
42F197	133-012-21	12	3.08	2.40	1.91	1.72	1.41	1.35	1.29
42F137	133-015-21	15	2.90	2.26	1.80	1.62	1.33	1.28	1.22
42F138	133-018-21	18	3.08	2.40	1.91	1.72	1.41	1.35	1.29
42F139	133-022-21	22	3.33	2.59	2.06	1.86	1.53	1.46	1.40



AMPHENOL SUB-MINIATURE RF CONNECTORS

Series 27. Available in push-on & screw-on types in both 50 and 75 ohm impedances. Machined brass with spring brass working members, gold finished for corrosion resistance, beryllium copper female contacts, brass male contacts. Teflon insulation except hermetically sealed receptacles which are glass and Teflon. Advanced subminiaturized design incorporates latest elements for greater operational efficiency. New field serviceable types require no crimping. Av. shpg. wt., 3 oz.

50 OHM PUSH-ON

Stock No.	Type No.	Description	Tool No.	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
42F201	27-1	Plug	227-900	.98	.81	.59	.53	.44	.40	.35
42F202	27-2	Jack	227-900	1.09	.91	.65	.59	.49	.44	.39
42F203	27-3	Receptacle, Blkh.	None	.89	.74	.53	.48	.40	.36	.32
42F204	27-4	Jack, Bulkhead	227-900	1.31	1.09	.78	.71	.59	.53	.47
42F205	27-5	Adapter, Blkh.	None	1.86	1.55	1.12	1.01	.84	.76	.67
42F206	27-6	Right Angle Plug	27-900	2.95	2.46	1.77	1.60	1.33	1.20	1.06
39F1218	27-801	Cable Termination	None	1.00	.83	.60	.54	.45	.41	.36

50 OHM SCREW-ON

Stock No.	Type No.	Description	Tool No.	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
42F207	27-7	Plug	227-900	.87	.72	.52	.47	.39	.35	.31
42F208	27-8	Jack	227-900	.82	.68	.49	.44	.37	.33	.30
42F209	27-9	Receptacle	None	.91	.76	.55	.49	.41	.37	.33
42F210	27-10	Jack, Bulkhead	227-900	.95	.80	.57	.52	.43	.39	.34
42F212	27-12	Recpt. Hermetic	227-900	1.71	1.42	1.02	.92	.77	.69	.62
42F226	27-26	Plug Right Angle	None	2.46	2.05	1.48	1.33	1.11	1.00	.89
39F1217	27-28	Adapter, Subminax to BNC	None	1.84	1.54	1.10	1.00	.83	.75	.66
39F1216	27-800	Receptacle, Prtd. Circuit	None	1.44	1.20	.86	.78	.65	.59	.52

75 OHM PUSH-ON

Stock No.	Type No.	Description	Tool No.	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
42F213	27-13	Plug	227-901 & 227-902	1.15	.96	.69	.62	.52	.47	.42
42F214	27-14	Jack	227-901 & 227-902	1.33	1.11	.80	.72	.60	.54	.48
42F215	27-15	Receptacle	None	1.04	.87	.63	.56	.47	.42	.38

75 OHM SCREW-ON

Stock No.	Type No.	Description	Tool No.	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
42F219	27-19	Plug	227-901	.80	.67	.48	.43	.36	.32	.29
42F220	27-20	Jack	227-901	1.53	1.28	.92	.83	.69	.62	.55
42F221	27-21	Receptacle	None	.93	.78	.56	.50	.42	.38	.34
42F222	27-22	Jack, Bulkhead	227-901	1.24	1.04	.74	.67	.56	.50	.45
42F223	27-23	Feed Through	None	1.38	1.15	.82	.74	.62	.56	.50
42F224	27-24	Recept. Hermetic	None	1.91	1.59	1.14	1.03	.86	.77	.69
42F225	27-25	Angle Plug	227-901	1.58	1.31	.94	.85	.71	.64	.57

Note: 50 ohm connectors can be used with Amphenol 21-596 and 21-598 min. cable. 75 ohm connectors can be used with Amphenol 21-597 miniature coaxial cable.

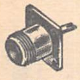
TOOLS

Stk. No.	Type	Description	NET
42F247	227-900	For 50 ohm connectors	18.50
42F248	227-901	For 75 ohm connectors	18.50

Weatherproof low-voltage connectors of constant impedance. All are 50 ohm types except (1), which are 70 ohms.

TYPE N CONNECTORS

Stk. No.	Type	Jan Type	Fig.	Description	For RG-/U Cable	Max. Jkt. Dia.	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1101	82-86	UG-18B/U	C	Plug	5, 6, 21	.332	2.15	1.79	1.29	1.16	.97	.92	.87
39F1119	82-203	UG-18C/U	C	Plug (3)	5, 6, 21	.332	2.69	2.24	1.61	1.45	1.21	1.15	1.09
39F1103	82-88	UG-20B/U	E	Jack	5, 6, 21	.332	1.93	1.61	1.16	1.04	.87	.83	.78
39F1124	82-210	UG-20C/U	E	Jack (3)	5, 6, 21	.332	2.11	1.76	1.26	1.14	.95	.90	.86
39F1108	82-96	UG-21C/U	C	Plug	8, 9, 10	.332	2.13	1.78	1.28	1.15	.96	.91	.86
39F019	82-61	UG-21B/U	C	Plug	8, 9, 10	.332	1.91	1.59	1.14	1.03	.86	.82	.77
39F1118	82-202	UG-21D/U	C	Plug (3)	8, 9, 10	.332	2.58	2.15	1.54	1.39	1.16	1.10	1.04
39F1107	82-95	UG-22C/U	D	Panel jack	8, 9, 10	.332	1.89	1.57	1.13	1.02	.85	.81	.77
39F020	82-62	UG-22B/U	D	Panel jack	8, 9, 10	.332	1.80	1.50	1.08	.97	.81	.77	.73
39F1122	82-208	UG-22D/U	D	Panel jack (3)	8, 9, 10	.332	1.98	1.65	1.18	1.07	.89	.85	.80
39F021	82-63	UG-23B/U	E	Jack	8, 9, 10	.332	1.75	1.46	1.05	.95	.79	.75	.71
39F1106	82-94	UG-23C/U	E	Jack	8, 9, 10	.332	1.75	1.46	1.05	.95	.79	.75	.71
39F1123	82-209	UG-23D/U	E	Jack (3)	8, 9, 10	.332	1.78	1.48	1.06	.96	.80	.76	.72
39F076	82-64	UG-27A/U	F	90° adapter	....	......	3.46	2.89	2.07	1.87	1.56	1.48	1.40
39F1109	82-98	UG-27B/U	F	90° adapter	....	......	3.60	3.00	2.15	1.94	1.62	1.54	1.46
39F1127	82-213	UG-27C/U	F	90° adapter	....	......	4.42	3.68	2.65	2.39	1.99	1.89	1.79
39F1110	82-99	UG-28A/U		Tee adapter	....	......	3.89	3.24	2.33	2.10	1.75	1.66	1.58
39F077	82-65	UG-29A/U	G	St. adapter	....	......	2.09	1.74	1.25	1.13	.94	.89	.85
39F1112	82-101	UG-29B/U	G	St. adapter	....	......	1.98	1.65	1.18	1.07	.89	.85	.80
39F022	82-66	UG-30/U		Bulk. adapter	....	......	3.06	2.55	1.84	1.66	1.38	1.31	1.24
39F1117	82-201	UG-30C/U		Bulk. adapter	....	......	3.91	3.26	2.34	2.11	1.76	1.67	1.58
39F1111	82-100	UG-57B/U	H	St. adapter	....	......	2.86	2.39	1.72	1.55	1.29	1.23	1.16
39F023	82-24	UG-58/U	A	Receptacle	....	......	1.22	1.02	.73	.66	.55	.52	.50
39F028	82-97	UG-58A/U	B	Receptacle	....	......	1.20	1.00	.72	.65	.54	.51	.49
39F024	82-84	UG-94A/U	C	Plug (1)	11-13	.420	2.24	1.87	1.34	1.21	1.01	.96	.91
39F1104	82-89	UG-95A/U	E	Jack (1)	11-13	.420	2.09	1.74	1.25	1.13	.94	.89	.85
39F025	82-90	UG-96A/U	D	Panel jack (1)	11-13	.420	2.86	2.39	1.72	1.55	1.29	1.23	1.16
39F018	82-36	UG-107A/U	B	Tee adapter	....	......	5.55	4.63	3.33	3.00	2.50	2.38	2.25
39F078	82-102	UG-107B/U	B	Tee adapter	....	......	4.28	3.57	2.57	2.32	1.93	1.83	1.74
39F1113	82-105	UG-204A/U	J	Plug	14, 74	.545	4.00	3.33	2.39	2.16	1.80	1.71	1.62
39F1128	82-811	UG-68C/U	K	Bulk. recpt.	....	......	2.66	2.22	1.60	1.44	1.20	1.14	1.08
39F1114	82-106	MX-913/U		Cap & chain	....	......	.62	.52	.37	.34	.28	.27	.25
39F1115	82-112		B	Receptacle	....	......	3.00	2.50	1.80	1.62	1.35	1.28	1.22
39F1129	82-835		L	Angle plug	8, 9, 10	.332	5.06	4.22	3.03	2.74	2.28	2.17	2.05
39F1130	82-1275			Grounding lug	....	......	.09	.07	.05	.05	.04	.04	.04
39F1340	309-91100	UG-30D/U		Adpg 2F Ends	....	......	4.11	3.42	2.46	2.22	1.85	......	......
39F1323	309-34000	UG-536/U	C	Plug R655, 58 etc.	....	......	2.26	1.89	1.36	1.22	1.02	......	......
39F1324	309-34025	UG-536B/U	C	Plug, Improved R655	....	......	2.91	2.42	1.74	1.57	1.31	......	......
39F1319	309-18750		F	Angle Plug R655	....	......	3.22	2.68	1.93	1.74	1.45	......	......



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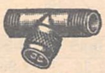

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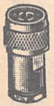

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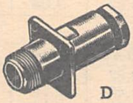

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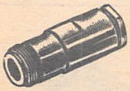

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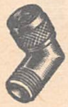

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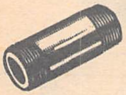

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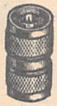

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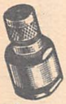

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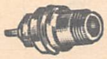

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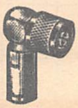


L

MISCELLANEOUS CONNECTORS AND ADAPTERS

Stk. No.	Type	Jan Type	Fig.	Description	Max. RG-/U Cables	Jkt. Dia.	1-9	10-49	50-99	100-249	250-499	500-999	1000-2499
39F1171	82-21	UG-85/U	....	Plug	(*)	.242	2.20	1.83	1.32	1.19	.99	.94	.89
39F1174	82-42	UG-87/U	....	Receptacle	......	......	2.06	1.72	1.24	1.12	.93	.88	.84
39F1175	82-59	UG-154/U	CC	Plug	17, 18	.870	11.14	9.29	6.68	6.02	5.02	4.77	4.52
39F1185	82-214	UG-204C/U	....	Plug	14, 47	.545	4.37	3.64	2.62	2.36	1.97	1.87	1.77
39F1210	82-115	UG-212C/U	GG	Ada./rt. ang.	......	......	7.06	5.88	4.23	3.82	3.18	3.02	2.86
39F1176	82-80	UG-352/U	A	Receptacle	......	......	8.44	7.03	5.05	4.56	3.80	3.61	3.42
39F1177	82-110	UG-352A/U	A	Receptacle	......	......	10.32	8.60	6.18	5.58	4.65	4.42	4.19
39F1195	82-540	UG-565A/U	....	....	......	......	4.68	3.90	2.81	2.53	2.11	2.00	1.90
39F1211	82-522	UG-937/U	C	Jack bli. hd.	10, 12	.405	3.75	3.13	2.25	2.03	1.69	1.61	1.52
39F1213	82-538	UG-943A/U	C	Plug	10, 12	.405	4.17	3.48	2.50	2.26	1.88	1.79	1.69
39F1187	82-312	UG-1185/U	....	Plug	(†)	.425	2.51	2.09	1.50	1.35	1.13	1.07	1.02
39F1188	82-313	UG-1186/U	....	Jack	(†)	.425	2.15	1.79	1.29	1.16	.97	.92	.87
39F1190	82-320	UG-1213/U	...	Plug	(†)	.425	4.44	3.70	2.66	2.40	2.00	1.90	1.80
39F1180	82-150	....	....	Splice adpt.	8-10	.420	14.21	11.84	8.51	7.68	6.40	6.08	5.76
39F1196	82-830	....	DD	Push-on plug	55, 58	.206	.51	.43	.31	.28	.23	.22	.21
39F1197	82-831	....	EE	Push-on recpt.	......	......	.91	.76	.55	.49	.41	.39	.37
39F1198	82-832	....	DD	Push-on plug	62, 71	.250	.53	.44	.32	.29	.24	.23	.22
39F1199	82-841	....	EE	Push-on recpt.	......	......	1.22	1.02	.73	.66	.55	.52	.49
39F1200	82-842	....	DD	Push-on plug	......	......	.93	.78	.56	.50	.42	.40	.38
39F1201	82-845	....	FF	Push-on plug	55, 58	.206	1.53	1.28	.92	.83	.69	.66	.62
39F1202	82-846	....	GG	Push on jack	55, 58	.206	1.31	1.09	.78	.71	.59	.56	.53
39F1205	82-888	....	....	....	......	......	1.86	1.55	1.12	1.01	.84	.80	.76

*55, 58, 59, 60, 71. †8-10, 87A, 115, 115A.

TYPE C CONNECTORS

39F087	82-530	UG-573A/U	T	Plug	8, 9	.420	3.26	2.72	1.96	1.76	1.47	1.40	1.32
39F1135	82-508	UG-564/U			......	......	2.91	2.42	1.74	1.57	1.31	1.24	1.18
39F1149	82-536	UG-566A/U	B	Tee adapter	......	......	6.39	5.33	3.83	3.46	2.88	2.74	2.59
39F1148	82-535	UG-567A/U	V	90° adapter	......	......	5.71	4.75	3.42	3.08	2.57	2.44	2.31
39F1133	82-504	UG-568/U	A	Receptacle	......	......	1.95	1.63	1.17	1.06	.88	.84	.79
39F1134	82-505	UG-569/U	R	Bulk. recpt.	......	......	2.60	2.16	1.56	1.40	1.17	1.11	1.05
39F1131	82-502	UG-570/U	N	Bulk. jack	8, 9	.420	3.04	2.53	1.82	1.64	1.37	1.30	1.23
39F086	82-501	UG-571/U	M	Panel jack	8, 9	.420	2.38	1.98	1.42	1.28	1.07	1.02	.96
39F1132	82-503	UG-572/U	P	Jack	8, 9	.420	2.46	2.05	1.48	1.33	1.11	1.05	1.00
39F1145	82-532	UG-628A/U	T	HV plug	8, 9A	.420	4.08	3.50	2.51	2.27	1.89	1.80	1.70
39F1143	82-521	UG-632/U	N	Bulk. HV jack	8, 9A	.420	3.64	3.03	2.18	1.97	1.64	1.56	1.48
39F1140	82-514	UG-643/U	....	....	......	......	2.35	1.96	1.41	1.27	1.06	1.01	.95
39F1141	82-515	UG-634/U	R	Bulk. recpt.	......	......	3.46	2.89	2.07	1.87	1.56	1.48	1.40
39F1137	82-511	UG-705/U	R	Bulk. recpt	......	......	4.17	3.48	2.50	2.26	1.88	1.79	1.69
39F1146	82-533	UG-707A/U	W	Plug	14, 74	.545	4.55	3.79	2.73	2.46	2.05	1.95	1.85
39F1147	82-534	UG-709A/U	C	Plug	55, 58	.206	3.71	3.09	2.22	2.00	1.67	1.59	1.50
39F1144	82-531	UG-710A/U	V	90° plug	......	......	5.79	4.83	3.47	3.13	2.61	2.48	2.35
39F1138	82-512	MX-1142/U		Cap & chain	......	......	1.04	.87	.63	.56	.47	.45	.42

TYPE HN CONNECTORS

39F026	82-804	UG-59B/U	X	Plug	8-10	.420	3.44	2.87	2.06	1.86	1.55	1.47	1.40
39F1150	82-38	UG-59A/U	X	Plug	8-10	.420	3.17	2.65	1.90	1.72	1.43	1.36	1.29
39F1151	82-39	UG-60A/U	Y	Jack	8-10	.420	2.69	2.24	1.61	1.45	1.21	1.15	1.09
39F1164	82-814	UG-60B/U	Y	Jack	8-10	.420	3.51	2.92	2.10	1.90	1.58	1.50	1.42
39F1152	82-40	UG-61A/U	Y	Panel jack	8-10	.420	2.89	2.41	1.73	1.56	1.30	1.24	1.17
39F1165	82-815	UG-61B/U	Y	Panel jack	8-10	.420	3.40	2.83	2.03	1.84	1.53	1.45	1.38
39F1156	82-91	UG-212A/U	Z	90° adapter	......	......	4.46	3.72	2.67	2.41	2.01	1.91	1.81
39F1154	82-56	UG-333/U	AA	Jack	17, 18	.870	8.66	7.22	5.19	4.68	3.90	3.71	3.51
39F1159	82-107	UG-333A/U	Z	Panel jack	17, 18	.870	6.82	5.68	4.08	3.68	3.07	2.92	2.76
39F1155	82-57	UG-334/U	AA	Panel jack	17, 18	.870	9.95	8.29	5.96	5.38	4.48	4.26	4.03
39F1160	82-108	UG-334A/U	J	Panel jack	17, 18	.870	7.48	6.23	4.48	4.04	3.37	3.20	3.03
39F1162	82-111	UG-495A/U	K	Plug	17, 18	.870	6.93	5.77	4.15	3.74	3.12	2.96	2.81
39F1158	82-92	UG-496/U	A	Receptacle	......	......	2.33	1.94	1.40	1.26	1.05	1.00	.95
39F027	82-805	UG-560/U	A	Receptacle	......	......	3.24	2.70	1.94	1.75	1.46	1.39	1.31
39F1157	82-91A	....	F	90° adapter	......	......	7.44	6.20	4.46	4.02	3.35	3.18	3.02
39F1163	82-130	....	....	Cap & chain	......	......	1.20	1.00	.72	.65	.54	.51	.49
39F1166	82-816	....	BB	Plug	54A	.250	3.15	2.63	1.89	1.70	1.42	1.35	1.28
39F1167	82-833	....	L	Angle plug	8-10	.420	4.73	3.94	2.83	2.56	2.13	2.02	1.92
39F1168	82-836	....	K	Receptacle	......	......	3.91	3.26	2.34	2.11	1.76	1.67	1.58
39F1169	82-843	....	....	HV receptacle	......	......	5.00	4.16	3.00	2.70	2.25	2.14	2.02
39F1170	82-856	....	L	Angle plug	8-10	.420	10.79	9.00	6.46	5.83	4.86	4.62	4.37

TAPERING TOOL

Model 103-301. Tapering tool for RG-/U cables. 8-10. Military No. MX-103/U. Shpg. wt., 2 oz.

Stock No.	1-9	10-49	50-99	100-249	250-999
42F246	13.20	9.90	7.92	7.13	5.94

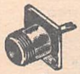
BETWEEN SERIES ADAPTERS

Stk. No.	MIL.	Type	Mates With	1-9	10-49	50-99	100-249	250-499	500-999	1000-2499
39F1038	UG-201/U	31-830	N female and BNC male	2.66	2.22	1.60	1.44	1.20	1.14	1.08
39F1029	UG-201A/U	31-216	N female and BNC male	2.84	2.37	1.70	1.54	1.28	1.22	1.15
39F074	UG-273/U	31-028	BNC male and UHF 49194	1.93	1.61	1.16	1.04	.87	.83	.78
39F1030	UG-349A/U	31-217	N male and BNC female	2.80	2.33	1.68	1.51	1.26	1.20	1.13
39F1135	UG-564/U	82-508	C male and N female	2.91	2.42	1.74	1.57	1.31	1.24	1.18
39F1195	UG-565A/U	82-540	C female and N male	4.68	3.90	2.81	2.53	2.11	2.00	1.90
39F1226	....	27-28	BNC female to 50 ohm Screw-on subminax male	1.84	1.54	1.10	1.00	.83	.75	.66
39F1227	....	27-41	BNC, 75Ω push-on-male	8.35	6.96	5.00	4.51	3.76	3.38	3.01
39F1310	UG-146/U	309-4400	UHF female and N male	3.44	2.87	2.06	1.86	1.55	......	......
39F1307	UG-255/U	309-2900	BNC male and UHF fem.	3.02	2.52	1.81	1.63	1.36	......	......
39F1320	UG-318/U	309-26700	N male and UHF female	6.15	5.12	3.68	3.32	2.77	......	......

NEWARK KEEPS PACE WITH CURRENT PROGRESS IN RESEARCH AND DEVELOPMENT AND LEADS IN PROCURING AND SUPPLYING THE PRODUCTS YOU NEED

TYPE "C" CONNECTORS

Improved design for 50 ohm RF cables. Will also fit 70 ohm cables where impedance match is not critical. Employ quick-disconnect bayonet-type lock. All metal parts are silver-coated, and all have Teflon dielectric. Shpg. wt., 4 oz.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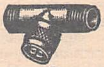
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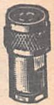
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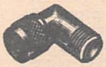
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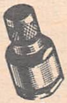
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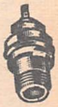
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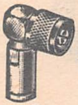
TYPE "HN" CONNECTORS

Weatherproof high-voltage connectors for 50-ohm RF cables. Have 5 kv peak rating, when used with Amphenol 307 Silicone compound. Machined brass, with silver plating and special coating to minimize discoloration. Wt., 4 oz.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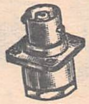
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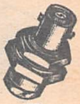
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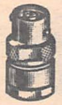
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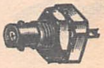
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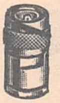
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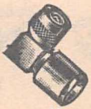
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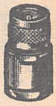
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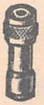
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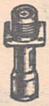
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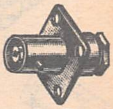
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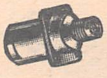
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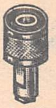
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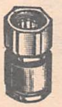
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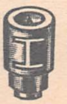
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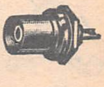
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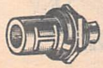
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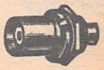
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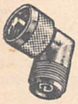
AMPHENOL

ipc RF CONNECTORS

Series UHF RF connectors will operate satisfactorily at frequencies up to 200 megacycles without any special precautions, and used at frequencies up to 500 megacycles under certain conditions. These connectors will also handle all peak voltages up to 500 without danger of breakdown. Large single and twin-contact connectors are provided with rubber sealing gasket for weather-proofing, while small single and twin-contact types can be waterproofed by application of Amphenol 307 Silicone Compound to mating insulator surfaces. All metal surfaces are silver-plated and covered with a protective coating to prevent tarnishing. Beaded chains for caps are nickel-plated brass. Shipping weight each, 4 oz. approx.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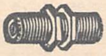
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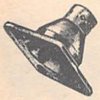
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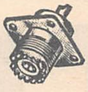
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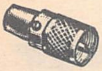
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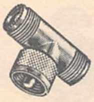
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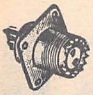
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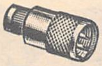
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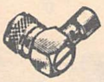
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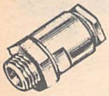
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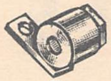
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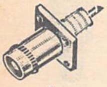
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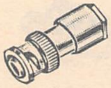
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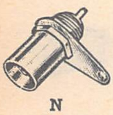
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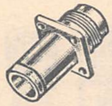
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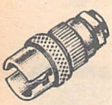
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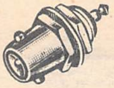

R

TYPE UHF CONNECTORS

No.	Type	Jan Type	Fig.	Description	For RG-/U Cables	Mx. Jkt. Dia.	1-9	10-49	50-99	100-249	250-499	500-999	1000 2499
39F034	83-1T	M-358	F	Tee adapter (1)	....	......	2.64	2.20	1.58	1.43	1.19	1.13	1.07
39F1060	83-58	M-359A	A	90° adapter (1)	....	......	2.15	1.79	1.29	1.16	.97	.92	.87
39F035	83-1J	PL-258	....	St. adapter (1)	....	......	1.15	.96	.69	.62	.52	.49	.47
39F030	83-1SP	PL-259	E	Plug (1)	8-13, 63	.420	.73	.61	.44	.40	.33	.31	.30
39F031	83-1SPN	PL-259A	E	Plug (1)	8-13, 63	.420	1.00	.83	.60	.54	.45	.43	.40
39F1065	83-756	49195	E	Plug (1)	8-12	.420	1.42	1.18	.85	.77	.64	.61	.58
39F047	83-22F	PL-275	B	Bulk adapter (2)	....	......	2.91	2.42	1.74	1.57	1.31	1.24	1.18
39F1056	83-2SP	PL-295	H	Plug (4)	57, 130	.625	3.53	2.94	2.11	1.91	1.59	1.51	1.43
39F039	83-1R	SO-239	D	Receptacle (1)	....	......	.75	.63	.45	.41	.34	.32	.31
39F1055	83-2R	SO-265	G	Receptacle (4)	....	......	2.38	1.98	1.42	1.28	1.07	1.02	.96
39F043	83-22SP	UG-102/U	H	Plug (2)	22	.405	1.22	1.02	.73	.66	.55	.52	.50
39F048	83-22R	UG-103/U	G	Receptacle (2)	....	......	1.00	.83	.60	.54	.45	.43	.41
39F044	83-22AP	UG-104/U	A	90° Bulk adap. (2)	....	......	2.49	2.07	1.49	1.34	1.12	1.06	1.01
39F046	83-22J	UG-105/U	....	St. adapter (2)	....	......	1.84	1.54	1.10	1.00	.83	.79	.75
39F037	83-1H	UG-106/U	C	Hood (1-2)	22	.405	.27	.22	.16	.14	.12	.11	.11
39F1064	83-750	UG-111/U	E	Plug (1)	59, 62, 71	.250	1.00	.83	.60	.54	.45	.43	.41
39F040	83-185	UG-175/U	....	Reducing adap.	58	.195	.20	.17	.12	.11	.09	.09	.08
39F041	83-168	UG-176/U	....	Reducing adap.	59, 62, 71	.250	.20	.17	.12	.11	.09	.09	.08
39F038	83-765	UG-177/U	C	Hood (1)	29, 55, 58	.206	.31	.26	.19	.17	.14	.13	.13
39F045	83-22T	UG-196/U	....	Tee adapter (2)	....	......	3.97	3.31	2.38	2.15	1.79	1.70	1.61
39F032	83-776	UG-203/U	E	Plug (1)	55,59,62,71	.250	1.13	.94	.68	.61	.51	.48	.46
39F1051	83-1HP	UG-372/U	C	Hood (1)	8-13, 63	.420	.33	.28	.20	.18	.15	.14	.13
39F1058	83-21R	UG-357/U	D	Receptacle (2)	....	......	2.20	1.83	1.32	1.19	.99	.94	.89
39F1059	83-21SP	UG-358/U	E	Plug (3)	34	.625	3.53	2.94	2.11	1.91	1.59	1.51	1.43
39F036	83-1F	UG-363/U	B	Bulk adapter (1)	....	......	1.98	1.65	1.18	1.07	.89	.85	.80
39F033	83-1AP	UG-646/U	A	90° adapter (1)	....	......	1.69	1.41	1.01	.91	.76	.72	.68
39F042	83-1AC	....	....	Cap & chain (1-2)	....	......	.56	.46	.33	.30	.25	.24	.23
39F1050	83-1BC	....	....	Cap & Chain (1-2)	....	......	.73	.61	.44	.40	.33	.31	.30
39F1052	83-1RTY	SO-239	D	Receptacle (1)	....	.870	.75	.63	.45	.41	.34	.32	.31
39F1061	83-59	....	I	90° Plug (1)	17, 18	......	2.60	2.16	1.56	1.40	1.17	1.11	1.05
39F1062	83-65	....	....	Reducing adap.	.250 Diam.	.870	.22	.19	.13	.12	.10	.10	.09
39F1070	83-86	....	....	UHF cable conn.	17	......	7.95	6.62	4.76	4.30	3.58	3.40	3.22
39F1063	83-716	....	D	Receptacle* (1)	....	......	2.75	2.29	1.65	1.49	1.24	1.18	1.12
39F1066	83-786	....	C	Hood & nut (1)	29, 55, 58	.206	.60	.50	.36	.32	.27	.27	.24
39F049	83-798	SO-239A	D	Recep. (2) Teflon	....	......	1.82	1.52	1.09	.98	.82	.78	.74
39F1068	83-821	....	H	Plug (2) Teflon	22	.405	2.20	1.83	1.32	1.19	.99	.94	.89
39F1225	83-822	49190	E	Plug (1) Teflon	....	......	1.27	1.05	.76	.68	.57	.54	.51
39F088	83-850	....	E	Solderless plug	11	.405	1.38	1.15	.82	.74	.62	.59	.56
39F089	83-851	....	E	Solderless plug	8-13, 63	.420	1.20	1.00	.72	.65	.54	.51	.49

*Pressurized types

NOTES:

1) Small single-contact connectors
2) Small twin-contact connectors
3) Large single-contact connectors
4) Large twin-contact connectors

IPC CABLE TERMINATIONS

Designed to terminate coax shield without soldering and permitting the inner conductor to extend beyond the termination. (*) Mount in 5⁄16" hole. Average wt., 4 oz.

Stock No.	Type	Jan Type	Fig.	RG/U Cable	Max. Jkt. Dia.	Mounting	1-9	10-49	50-99	100-249	250-499
39F1301	309-1050	MC1530/U*	J	59, 62, 71	.250	Locknut	.62	.52	.37	.34	.28
39F1300	309-1025	MX1684/U*	J	56, 58	.195	Locknut	.71	.59	.43	.38	.32
39F1309	309-4025	MX1801/U	K	59, 62, 71	.250	Rt. Hand Strap	.62	.52	.37	.34	.28

IPC COAXIAL PLUG-IN CONNECTORS

Commonly used on drawer-type chassis for direct plug-in connections. Plug and receptacle mount in 5⁄16" hole. 2,000 volts. Average wt., 4 oz.

Stock No.	IPC Type	Jan Type	Fig.	Description	1-9	10-49	50-99	100-249	250-499
39F1305	309-2225	UG1050/U	N	Male	.91	.76	.55	.49	.41
39F1304	309-2175	UG1051/U	N	Female	1.00	.83	.60	.54	.45
39F1306	309-2325	....	....	Right angle hood	.69	.57	.41	.37	.31
39F1308	309-3425	....	....	Male, gold plated	.93	.78	.56	.50	.42

IPC MB COAXIAL CONNECTORS

Excellent electrical and mechanical properties at low cost. Extremely small, use up to 500 mc, 500 volts, 400°F. Bayonet lock. Average weight, 4 oz.

Stk. No.	Jan Type	Fig.	Description	For RG-/U Cable	Max. Jkt. Dia.	1-9	10-49	50-99	100-249	250-499
39F1326	309-45000	P	Plug	58	.195	.95	.80	.57	.52	.43
39F1327	309-45550	P	Plug	59	.242	1.29	1.07	.77	.70	.58
39F1328	309-45975	R	Pressurized receptacle	......	......	4.64	3.87	2.78	2.51	2.09
39F1329	309-46000	R	Receptacle, nylon	......	......	.64	.54	.39	.35	.29
39F1330	309-46025	R	Receptacle, Kel-F	......	......	.62	.52	.37	.34	.28
39F1333	309-48825	P	Plug	187	......	1.71	1.43	1.02	.92	.77
39F1334	309-48850	P	Plug with Jacket Clamp	195	......	1.58	1.31	.94	.85	.71

IPC MHV COAXIAL CONNECTORS

Miniature high voltage connectors are small bayonet-lock connectors for use up to 50 mc., 5,000 volts, 5 amps. Similar, but do not mate with BNC Connectors. Average Shpg. wt., 4 oz.

Stk. No.	IPC Type	Jan Type	Fig.	Description	For RG-/U Cable	Max. Jkt. Dia.	1-9	10-49	50-99	100-249	250-499
39F1321	309-27000	UG9 31/U	L	Receptacle	....	......	1.93	1.61	1.16	1.04	.87
39F1322	309-28000	UG9 32/U	M	Plug	59	.242	2.33	1.94	1.40	1.26	1.05

TWINAX

Have a nominal impedance of 95 ohms and are weather-proof. All are polarized to preserve continuity of the individual conductors. These connectors can normally be used at frequencies up to 200 mc, and in some cases to 500 mc with caution. Maximum peak operating voltage is 500 volts. Average shipping weight, 4 ounces.

Stk. No.	IPC Type	Jan Type	Fig.	Description	For RG-U Cable	Max. Jkt. Dia.	1-9	10-49	50-99	100-249	250-499
39F1314	309-6275	UG-421/U	....	Plug	22	.405	3.13	2.61	1.88	1.69	1.41
39F1341	309-6225	UG-422/U	....	Receptacle, sq. flange	....	......	3.55	2.96	2.13	1.92	1.60
39F1342	309-6175	UG-423/U	O	Panel Jack, sq. flange	....	......	3.73	3.11	2.23	2.02	1.68

TYPE "BNC" CONNECTORS

Stock No.	Type	JAN Type	Fig.	Description	RG/U Cables	Max. Jkt. Dia.	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1000	31-006	CW-123/U	E	Cap & chain	....	......	.51	.43	.31	.28	.23	.22	.21
39F1009	31-026	CW123A/U	E	Cap & chain (1)	....	......	.53	.44	.32	.29	.24	.23	.22
39F072	31-007	CW155/U	....	Cap	....	......	.36	.30	.21	.19	.16	.15	.14
39F1010	31-027	CW155A/U	....	Cap	....	......	.42	.35	.25	.23	.19	.18	.17
39F1002	31-017	CW-159/U	E	Shorting plug	....	......	.93	.78	.56	.50	.42	.40	.38
39F1025	31-210	CW-282/U	E	Cap & chain (1)	....	......	.67	.56	.40	.36	.30	.29	.27
39F063	31-002	UG-88/U	B	Plug	55, 58	.206	1.11	.93	.67	.60	.50	.48	.45
39F1003	31-018	UG-88B/U	B	Plug	55, 58	.206	1.18	.98	.70	.64	.53	.50	.48
39F1018	31-202	UG-88C/U	B	Plug (1)	55, 58	.206	1.55	1.30	.93	.84	.70	.67	.63
39F064	31-005	UG-89/U	D	Jack	55, 58	.206	1.20	1.00	.72	.65	.54	.51	.49
39F1004	31-019	UG-89A/U	D	Jack	55, 58	.206	1.29	1.07	.77	.70	.58	.55	.52
39F1021	31-205	UG-89B/U	D	Jack (1)	55, 58	.206	1.55	1.30	.93	.84	.70	.67	.63
39F1017	31-201	UG-291B/U	A	Panel jack (1)	55, 58	.206	1.51	1.26	.90	.82	.68	.65	.61
39F1001	31-016	UG-254A/U	H	Receptacle*	....	......	3.15	2.63	1.89	1.70	1.42	1.35	1.28
39F065	31-012	UG-260/U	B	Plug	59, 62, 71	.250	1.18	.98	.70	.64	.53	.50	.48
39F1006	31-021	UG-260A/U	B	Plug	59, 62, 71	.250	1.13	.94	.68	.61	.51	.48	.46
39F1027	31-212	UG-260B/U	B	Plug (1)	59, 62, 71	.250	1.49	1.24	.89	.80	.67	.64	.60
39F066	31-015	UG-261/U	D	Jack	59, 62, 71	.250	1.24	1.04	.74	.67	.56	.53	.50
39F1007	31-022	UG-261A/U	D	Jack	59, 62, 71	.250	1.15	.96	.69	.62	.52	.49	.47
39F1028	31-215	UG-261B/U	D	Jack (1)	59, 62, 71	.250	1.55	1.30	.93	.84	.70	.66	.63
39F067	31-011	UG-262/U	A	Panel jack	59, 62, 71	.250	1.29	1.07	.77	.70	.58	.55	.52
39F1008	31-023	UG-262A/U	A	Panel jack	59, 62, 71	.250	1.33	1.11	.80	.72	.60	.57	.54
39F1026	31-211	UG-262B/U	A	Panel jack (1)	59, 62, 71	.250	1.53	1.28	.92	.83	.69	.66	.62
39F068	31-008	UG-274/U	F	Tee adapter	....	......	2.82	2.35	1.69	1.52	1.27	1.21	1.14
39F1024	31-208	UG-274A/U	F	Tee adapter	....	......	3.53	2.94	2.11	1.91	1.59	1.51	1.43
39F069	31-003	UG-290/U	C	Receptacle	....	......	1.02	.85	.61	.55	.46	.44	.41
39F1019	31-203	UG-290A/U	C	Receptacle (1)	....	......	1.15	.96	.69	.62	.52	.49	.47
39F070	31-001	UG-291/U	A	Panel jack	55, 58	.206	1.27	1.05	.76	.68	.57	.54	.51
39F1005	31-020	UG-291A/U	A	Panel jack	55, 58	.206	1.35	1.13	.81	.73	.61	.58	.55
39F071	31-009	UG-306/U	G	90° adapter	....	......	2.62	2.18	1.57	1.42	1.18	1.12	1.06
39F1036	31-817	UG-447/U	C	Receptacle (2)	....	......	1.11	.93	.66	.60	.50	.48	.45
39F1031	31-218	UG-491A/U	....	Adapter (1)	....	......	2.60	2.16	1.56	1.40	1.17	1.11	1.05
39F1337	31-236	UG-625B/U	N	Receptacle, 7⁄16″	....	....	1.35	1.13	.81	.73	.61	.58	.55
39F073	31-102	UG-657/U	J	Receptacle*	....	......	1.64	1.37	.98	.89	.74	.70	.67
39F1033	31-220	UG-492A/U	....	Bulk. adapter*	....	......	3.11	2.59	1.86	1.68	1.40	1.33	1.26
39F1022	31-206	UG-909/U	L	Bulk. jack (1)	55, 58	.206	2.00	1.67	1.20	1.08	.90	.86	.81
39F1023	31-207	UG-910/U	L	Bulk. jack (1)	59, 62, 71	.250	1.80	1.50	1.08	.97	.81	.77	.73
39F1020	31-204	UG-913/U	K	90° plug (1)	55, 58	.206	3.77	3.15	2.26	2.04	1.70	1.62	1.53
39F1030	31-217	UG-349A/U	M	Adapter†	....	......	2.80	2.33	1.68	1.51	1.26	1.20	1.13
39F1032	31-219	UG-914/U	....	St. adapter (1)	....	......	1.86	1.55	1.12	1.00	.84	.80	.76
39F075	31-221	UG-1094/U	....	Receptacle (2)	....	......	1.18	.98	.70	.64	.53	.50	.48
39F1034	31-222	UG-1098/U	....	Bulk Recep.	....	......	2.78	2.31	1.66	1.50	1.25	1.19	1.12
39F1012	31-104	....	C	90° Receptacle	....	......	1.18	.98	.70	.64	.53	.50	.48
39F1013	31-105	....	C	Receptacle (2)	....	......	1.35	1.13	.81	.73	.61	.58	.55
39F1035	31-759	....	....	Ground lug	....	......	.10	.08	.06	.05	.045	.043	.04
39F1039	31-842	....	C	Receptacle (2)	....	......	1.29	1.07	.77	.70	.58	.55	.52
39F1040	31-850	....	K	90° plug	59, 62, 71	.250	4.37	3.64	2.62	2.36	1.97	1.87	1.77
39F1041	31-851	....	....	Cable feed-thru	55, 58	.206	.75	.63	.45	.41	.34	.32	.31
39F1042	31-351	....	....	Plug	58,141	....	3.71	3.09	2.22	2.00	1.67	1.59	1.50
39F1043	31-356	....	....	Jack	58,141	....	3.24	2.70	1.94	1.75	1.46	1.39	1.31
39F1044	31-359	....	....	Plug	59,62,140	....	3.71	3.09	2.22	2.00	1.67	1.59	1.50

IPC-BNC TYPE

Stock No.	Type	JAN Type	Fig.	• Description	1-9	10-49	50-99	100-249	250-499
39F1302	309-1300	UG-90/U	M	Panel jack, sq. flange RG55, 58	1.55	1.30	.93	.84	.70
39F1311	309-4500	UG-185/U	....	Receptacle, sq. flange	1.15	.96	.69	.62	.52
39F1331	309-47000	UG-414/U	....	2 Female ends, sq. flange	1.80	1.50	1.08	.97	.81
39F1313	309-5675	UG-535/U	....	Angle receptacle,sq. flange	2.31	1.92	1.38	1.25	1.04
39F1312	309-5575	UG-625/U	N	Receptacle, 7⁄16″ single hole mtg.	1.09	.91	.65	.59	.49
39F1338	309-87050	UG-911A/U	N	Receptacle, ½″ D, single hole, press.	2.46	2.05	1.48	1.33	1.11
39F1339	309-87125	UG-912/U	N	Receptacle, 13⁄32″ D, hole, press.	2.46	2.05	1.48	1.33	1.11
39F1335	309-84975	UG-1033/U	L	Plug, improved, RG122	2.29	1.91	1.37	1.24	1.03
39F1303	309-2025	....	....	Female Cap	.67	.56	.40	.36	.30
39F1315	309-8525	....	....	Angle plug, RG55, 58	2.95	2.46	1.77	1.60	1.33
39F1316	309-8575	....	....	Angle plug, RG59, 62, 71	3.55	2.96	2.13	1.92	1.60
39F1317	309-15875	....	L	Plug, Captivated Contact RG161	2.18	1.81	1.30	1.18	.98
39F1318	309-16300	....	L	Plug, Captivated Contact RG180	1.69	1.41	1.01	.91	.76
39F1336	309-86225	....	....	Angle plug, RG59, 62, 71 improved	3.06	2.55	1.84	1.66	1.38

CAPTIVATED CONTACT CONNECTORS 50 OHM BNC SERIES

Stock No.	Type	Similar to	Fig.	Description	RG-/U Cables	Max. Jkt. Dia.	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1220	31-301	UG-88C/U	B	Plug (1)	55,58,141,142	.206	1.69	1.41	1.01	.91	.76	.72	.68
39F1221	31-302	UG-89B/U	D	Jack (1)	55,58,141,142	.206	1.78	1.48	1.06	.96	.80	.76	.72
39F1223	31-304	UG-260B/U	B	Plug (1)	59,62,71,140	.250	1.67	1.39	1.00	.90	.75	.71	.68
39F1224	31-305	UG-261B/U	D	Jack (1)	59,62,71,140	.250	1.80	1.50	1.07	.97	.81	.77	.73
39F1222	31-303	UG-262B/U	A	Panel jack (1)	59,62,71,140	.250	1.82	1.52	1.09	.98	.82	.78	.74
39F1219	31-300	UG-291B/U	A	Panel jack (1)	55,58,141,142	.206	1.80	1.50	1.07	.97	.81	.77	.73

NOTES:

*Pressurized Types.

†Connects Male Series N and Female Series BNC.

1) Improved Series BNC Connectors.

2) Modified UG-290/U for RG-62 and 71/U Cables.

SOLDERLESS RF CONNECTORS

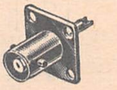
Solderless Amphenol connectors eliminate two common soldering operations in connector-cable assembly. Both are similar to the standard Amphenol 83-ISP plug.

Stock No.	Type	Max. Oper. Freq. (mc)	Shp. Wt. (lbs.)	For RG-/U Cables	Max. Jkt. Dia.	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F088	83-850	200	.083	11	.405	1.38	1.15	.82	.74	.62	.59	.56
39F089	83-851	200	.082	65	......	1.20	1.00	.72	.65	.54	.51	.49

Small, weatherproof low-voltage connectors with bayonet action for quick-disconnect applications. Non-constant impedance types for RG-55 and 58/U cables, and modified types for RG-59, 62, and 71/U cables. Shells, couplings, and male contacts are accurately machined from brass . . . springs are beryllium copper. All parts are silver-plated. Improved Series BNC connectors (Note 1) are constant-impedance 50 ohm types with excellent electrical performance up to 10,000 megacycles. Modified UG-290/U connectors (Note 2) are for RG-62 and 71/U cables, and are not matched. Shp. wt. 3 oz. ea.

A

B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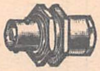
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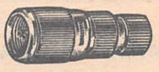
Type 83-850

Type 83-851

AMPHENOL CONNECTORS

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B

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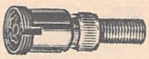
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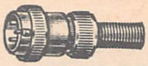
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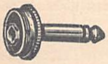
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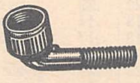
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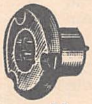
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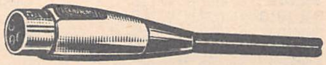
N

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75-1

75-2

75-3

MICROPHONE CONNECTORS

For most microphone applications chrome-plated brass, threaded coupling spring clamps eliminate stress. Plugs will mate with receptacles or jacks. P—plug, R—receptacles.

SERIES 75 SINGLE BUTTON CONTACT

Flat button contact means no pins to bend. Straight plug may be converted to jack by removing coupling ring. Phono plug adapter, 75 MCIP, and switch, 75-MCIS; screw into plug. *Non-shorting.

Stk. No.	Type	Fg.	Con	Desc.	1-24	25-99	100-249	250-499	500-999
39F000	75-MC1F	A	1	Plug	.46	.38	.32	.29	.26
39F001	75-MC1M	B	1	Jack	.42	.35	.29	.26	.24
39F002	75-PC1M	C	1	Receptacle	.37	.30	.26	.23	.20
39F003	75-MC1P	D	1	Phone Plug Adapter	.50	.41	.35	.31	.28
39F004	75-MC1FA	E	1	90° Plug	1.28	1.06	.90	.80	.72
39F005	75-CL-PC1M	F	1	Receptacle Shorting	.52	.43	.36	.33	.29
39F1280	75-CCC1	....	....	Cap, Chain	.44	.36	.31	.28	.25

SERIES 80 & 91 1, 2, 3, & 4 PIN CONTACTS

Series 80 are single and double pin contact connectors.

39F006	80-F	G	1F	Jack	.56	.46	.39	.35	.31
39F1281	80-F1	....	1F	Plug	.66	.54	.46	.41	.37
39F007	80-M	H	1M	Plug	.64	.53	.45	.40	.36
39F1282	80-M1	....	1M	Jack	.52	.43	.36	.33	.29
39F008	80-C	I	1F	Recpt.	.60	.50	.42	.38	.34
39F1283	80-C1		1M	Recpt.	.60	.50	.42	.38	.34
39F009	80-MC2F	G	2F	Jack	.62	.51	.43	.39	.35
39F1284	80-MC2F1	....	2F	Plug	.70	.58	.49	.44	.39
39F010	80-MC2M	H	2M	Plug	.68	.56	.48	.43	.38
39F1285	80-MC2M1	....	2M	Jack	.52	.43	.36	.33	.29
39F011	80-PC2F	I	2F	Recpt.	.60	.50	.42	.38	.34
39F1286	80-PC2M	....	2M	Recpt.	.60	.50	.42	.38	.34

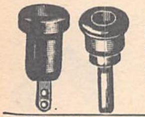
Series 91 are 3 and 4 contact connectors.

39F012	91-MC3F	J	3F	Jack	.84	.69	.59	.53	.47
39F1287	91-MC3F1	J	3F	Plug	.92	.76	.64	.58	.52
39F013	91-MC3M	K	3M	Plug	.88	.73	.62	.55	.49
39F1288	91-MC3M1	K	3M	Jack	.80	.66	.56	.50	.45
39F014	91-PC3F	L	3F	Recpt.	.72	.59	.50	.45	.40
39F1289	91-PC3M	....	3M	Recpt.	.82	.68	.57	.51	.46
39F015	91-MC4F	J	4F	Jack	.90	.74	.63	.56	.50
39F1290	91-MC4F1	....	4F	Plug	.98	.81	.69	.61	.51
39F016	91-MC4M	K	4M	Plug	.90	.74	.63	.56	.50
39F1291	91-MC4M1	....	4M	Jack	.82	.68	.57	.51	.46
39F017	91-PC4F	L	4F	Recpt.	.74	.61	.52	.46	.41
39F1292	91-PC4M	....	4M	Recpt.	.82	.68	.57	.51	.46

"QUIK-MIKE" MICROPHONE CONNECTORS

Body is high grade zinc alloy. Gold plated contacts for easy soldering. Nickel finish insures resistance to corrosion. Wt., 5 oz. Figs. M & N. M—Male; F—Female.

Stk. No.	Type	Con.	Desc.	1-24	25-99	100-249	250-499	500-999
39F151	91-853	3M	Plug	1.34	1.11	.94	.84	.75
39F152	91-854	3F	Jack	1.54	1.27	1.08	.96	.86
39F153	91-855	3M	Recpt.	1.00	.83	.70	.63	.56
39F154	91-856	3F	Recpt.	2.23	1.84	1.56	1.39	1.25
39F155	91-857	4M	Plug	1.42	1.17	.99	.89	.80
39F156	91-858	4F	Jack	1.96	1.62	1.37	1.23	1.10
39F157	91-859	4M	Recpt.	1.09	.86	.73	.65	.58
39F158	91-860	4F	Recpt.	2.29	1.89	1.60	1.43	1.28



JACKS AND PLUGS

Single-contact units of molded bakelite. Contacts recessed 1/8", to prevent shorts. All are for 3/32" jacks or plugs except * which are for 1/8", † 5/32", ‡ take standard phone tips. 2 oz.

78 SERIES TIP JACKS

Stk. No.	Type	Color	1-49	50-249	250-499	500-999	1000-2499
39F180	78-1S	Red	.11	.087	.074	.066	.059
39F181	78-1S	Black					
39F182	78-1M	Red*					
39F183	78-1M	Black*					
39F184	78-1L	Red†					
39F185	78-1L	Black†					
39F186	78-1P	Red‡					
39F187	78-1P	Black‡					

75 SERIES MINIATURE MICROPHONE CONNECTORS

Miniaturized version of the single contact mike connectors, have same rugged characteristics of standard 75 series mike connectors. Available in a male, female and chassis or panel type. Female is 1 11/64" long, male is 1" long, chassis is 5/8" long. Threads are 3/8-32, all parts machined brass nickel plated, Coupling ring removable for versatility. Accepts maximum cable OD of .208 inches. Wt., 3 oz. M—Male; F—Female.

Stk. No.	Model	Desc.	1-24	25-99	100-249	250-499	500-999
39F094	75-1	Cable Plug	.48	.40	.34	.30	.27
39F095	75-2	Cable Jack	.29	.24	.21	.184	.165
39F096	75-3	Receptacle	.33	.28	.23	.21	.187

71 SERIES PLUGS

39F188	71-1S	Red	.08	.07	.059	.053	.047
39F189	71-1S	Black					
39F190	71-1M	Red*					
39F191	71-1M	Black*					
39F192	71-1L	Red†					
39F193	71-1L	Black†					

BAKELITE MINIATURE CABLE PLUGS

For series 78 sockets. Have plated brass prongs. Wt., 2 oz.

Stk. No.	Type	Pins	1-49	50-249	250-499	500-999	1000-2499
39F160	71-3S	3	.09	.08	.064	.058	.052
39F161	71-4S	4	.11	.09	.08	.071	.064
39F162	71-5S	5	.12	.10	.084	.075	.067
39F163	71-6S	6	.15	.13	.106	.095	.085

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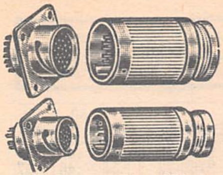
AMPHENOL MINIATURE MS TYPE CONNECTORS



Size	Small	Large
Plug diameter	57/64″	1 9/64″
Recpt. mtg. ctrs.	25/32″	.968″
Plug length	2 3/64″	2 3/64″
Cable opening	3/8″	21/32″
Recpt. flange	1 1/16″	1 5/16″
Mounting hole	13/16″	1 1/16″

165 Series. The 165 series are pressure-proof and completely waterproof, mated or apart. Weights average about one third that of standard "MS" connectors. Withstand government salt-spray tests by many hours in excess of standards. Extremely efficient in operation, the contacts are bronze, gold plated over silver. Features built-in cable clamp. Av. Shpg. wt., 3 oz.

No.	Type	Description	Contacts @ AWG	1-49	50-99
38F300	165-9	Sml.plug	12-#20 male	3.71	2.95
38F301	165-10	Sml.plug	12-#20 female	5.53	4.40
38F302	165-11	Sml. recpt.	12-#20 male	2.79	2.22
38F303	165-12	Sml. recpt.	12-#20 female	4.58	3.64

No.	Type	Description	Contacts @ AWG			1-49	50-99
38F304	165-13	Sml. plug	9-#20	-	male	3.52	2.81
38F305	165-14	Sml. plug	9-#20	-	fem.	5.41	4.31
38F306	165-15	Sml. recpt.	9-#20	-	male	2.61	2.07
38F307	165-16	Sml. recpt.	9-#20	-	fem.	3.34	2.66
38F308	165-17	Lge. plug	7-#20	4-#16	male	4.93	3.92
38F309	165-18	Lge. plug	7-#20	4-#16	fem.	6.03	4.80
38F310	165-19	Lge. recpt.	7-#20	4-#16	male	3.11	2.47
38F311	165-20	Lge. recpt.	7-#20	4-#16	fem.	4.19	3.34
38F312	165-25	Lge. plug	24-#20	-	male	5.83	4.64
38F313	165-26	Lge. plug	24-#20	-	fem.	7.65	6.09
38F314	165-27	Lge. recpt.	24-#20	-	male	4.02	3.21
38F315	165-28	Lge. recpt.	24-#20	-	fem.	5.83	4.64
38F316	165-29	Lge. plug	14-#16	-	fem.	5.03	4.00
38F317	165-30	Lge. plug	14-#16	-	fem.	6.98	5.56
38F318	165-31	Lge. recpt.	14-#16	-	male	3.24	2.58
38F319	165-32	Lge. recpt.	14-#16	-	fem.	5.16	4.11
38F320	165-33	Sml. plug	5-#20	-	male	3.36	2.67
38F321	165-34	Sml. plug	5-#20	-	fem.	4.59	3.66
38F322	165-35	Sml. recpt.	5-#20	-	male	2.40	1.92
38F323	165-36	Sml. recpt.	5-#20	-	fem.	2.91	2.31

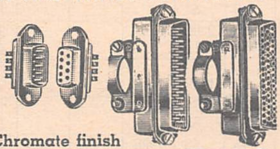
AMPHENOL MINNI "E" MINIATURE CONNECTORS

Amphenol's 67 Series of MINNI "E" connectors quick-disconnect, multi-contact, miniature bayonet lock types. First miniature connectors to fully meet the "E" requirements of MIL-C-5015. MINNI "E" Connectors are available as Plugs. Cable and Panel Receptacles and Single Hole Mounting Receptacles in four constructions, five shell sizes and 17 insert arrangements. Positive locking action. Type P construction for potting. Disposable polyethylene potting form. Type E has unitized grommet/clamp individually sealing conductor at back.

	67-01						67-02			67-03			67-06					
	E			P			E			E			E			P		
Shell Insert	1-24	25-99	100-999	1-24	25-99	100-999	1-24	25-99	100-999	1-24	25-99	100-999	1-24	25-99	100-999	1-24	25-99	100-999
12-7P	9.62	8.42	7.22	7.56	6.62	5.67	5.54	4.85	4.16	6.30	5.51	4.73	9.18	8.03	6.89	7.12	6.23	5.34
12-7S	11.10	9.71	8.33	9.04	7.91	6.78	7.02	6.14	5.27	7.78	6.81	5.84	10.68	9.35	8.01	8.62	7.54	6.47
12-60P	9.62	8.42	7.22	7.46	6.53	5.60	5.42	4.74	4.07	6.18	5.41	4.64	9.18	8.03	6.89	7.02	6.14	5.27
12-60S	10.44	9.14	7.83	8.28	7.25	6.21	6.30	5.51	4.73	13.24	11.59	9.93	10.02	8.77	7.52	7.84	6.86	5.88
14-5P	8.42	7.37	6.32	6.18	5.41	4.64	4.88	4.27	3.66	5.40	4.73	4.05	8.22	7.19	6.17	5.98	5.23	4.49
14-9P	9.90	8.66	7.43	6.58	5.76	4.94	5.30	4.64	3.98	5.80	5.08	4.35	8.94	7.82	6.71	6.58	5.76	4.94
14-9S	11.10	9.71	8.33	7.76	6.79	5.82	6.48	5.67	4.86	7.00	6.13	5.25	10.14	8.87	7.61	7.76	6.79	5.82
14-12P	9.46	8.28	7.10	7.42	6.49	5.57	5.34	4.67	4.01	5.86	5.13	4.40	8.48	7.42	6.36	8.48	7.42	6.36
14-12S	10.90	9.54	8.18	8.86	7.75	6.65	7.14	6.25	5.36	7.66	6.70	5.75	9.92	8.68	7.44	9.92	8.68	7.44
14-61S	13.80	12.08	10.35	11.16	9.77	8.37	9.90	8.66	7.43	10.42	9.12	7.82	13.60	11.90	10.20	10.96	9.59	8.22
14-63P	9.10	7.96	6.83	6.96	6.09	5.22	5.46	4.78	4.10	5.98	5.23	4.49	8.90	7.79	6.68	6.56	5.74	4.92
14-63S	10.36	9.07	7.77	8.00	7.00	6.00	6.72	5.88	5.04	7.24	6.34	5.43	10.16	8.89	7.62	8.02	7.02	6.02
18-24P	10.38	9.08	7.79	7.46	6.53	5.60	6.60	5.78	4.95	7.16	6.27	5.37	10.38	9.08	7.79	7.46	6.53	5.60
18-24S	13.82	12.09	10.37	10.90	9.54	8.18	9.92	8.68	7.44	10.52	9.21	7.89	13.82	12.09	10.37	10.90	9.54	8.18
18-64P	11.06	9.68	8.30	8.48	7.42	6.36	7.08	6.20	5.31	7.66	6.70	5.75	11.06	9.68	8.30	8.48	7.42	6.36
18-64S	12.04	10.54	9.03	9.46	8.28	7.10	8.12	7.11	6.09	8.70	7.61	6.53	12.04	10.54	9.03	9.46	8.28	7.10
18-65P	11.82	10.34	8.87	9.34	8.17	7.01	8.02	7.02	6.02	8.62	7.54	6.47	11.82	10.34	8.87	9.34	8.17	7.01
18-65S	11.24	9.84	8.43	8.76	7.67	6.57	7.44	6.51	5.58	8.02	7.02	6.02	11.24	9.84	8.43	8.76	7.67	6.57
20-37P	13.76	12.04	10.32	11.28	9.87	8.46	11.08	9.70	8.31	11.84	10.36	8.88	13.80	12.08	10.35	11.34	9.92	8.51
20-37S	18.62	16.29	13.97	16.22	14.19	12.17	14.58	12.76	10.94	15.38	13.46	11.54	18.66	16.33	14.00	16.20	14.18	12.15
20-66P	11.42	9.99	8.57	9.56	8.37	7.17	8.40	7.35	6.30	9.14	8.00	6.86	11.46	10.03	8.60	9.60	8.40	7.20
20-66S	14.58	8.57	10.94	12.74	11.15	9.56	7.98	6.98	5.99	12.34	10.80	9.26	14.62	12.79	10.97	12.78	11.18	9.59
22-48P	13.76	12.04	10.32	12.54	10.97	9.41	11.82	10.34	8.87	13.34	11.67	10.01	13.48	11.80	10.11	12.26	10.73	9.20
22-48S	19.86	17.38	14.90	18.64	16.31	13.98	17.66	15.45	13.25	19.18	16.78	14.39	19.58	17.13	14.69	18.36	16.07	13.77

MIN RAC 17 MINIATURE RACK AND PANEL CONNECTORS

Newest in the Amphenol line, for crimp type contacts. Weight saving of 50% over old style. Uniform asembly separate from the connector plus removability at any time for circuit changes. Contacts are gold over silver plated.



RECEPTACLES Chromate finish

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1360	9	17-10090	1.76	1.49	1.23	1.10	.93	.88	.84
39F1361	15	17-10150	2.55	2.16	1.78	1.39	1.33	1.28	1.21
39F1362	25	17-10250	3.50	2.97	2.45	2.19	1.84	1.75	1.66
39F1363	37	17-10370	4.74	4.04	3.32	2.97	2.49	2.37	2.26
39F1364	50	17-10500	6.10	5.18	4.27	3.81	3.20	3.05	2.90

RECEPTACLES gold iridite fin.

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1365	9	17-11090	1.76	1.49	1.23	1.10	.93	.88	.84
39F1366	15	17-11150	2.55	2.16	1.78	1.39	1.33	1.28	1.21
39F1367	25	17-11250	3.50	2.97	2.45	2.19	1.84	1.75	1.66
39F1368	37	17-11370	4.74	4.04	3.32	2.97	2.49	2.37	2.26
39F1369	50	17-11500	6.10	5.18	4.27	3.81	3.20	3.05	2.90

PLUGS Chromate finish

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1370	9	17-20090	1.50	1.27	1.05	.94	.79	.75	.68
39F1371	15	17-20150	1.74	1.48	1.22	1.09	.92	.87	.83
39F1372	25	17-20250	2.39	2.03	1.67	1.49	1.26	1.20	1.14
39F1373	37	17-20370	3.14	2.67	3.20	1.96	1.65	1.57	1.49
39F1374	50	17-20500	3.97	3.58	2.78	2.48	2.09	1.99	1.89

PLUGS gold iridite fin.

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1375	9	17-21090	1.50	1.27	1.05	.94	.79	.75	.68
39F1376	15	17-21150	1.74	1.48	1.22	1.01	.92	.87	.83
39F1377	25	17-21250	2.39	2.03	1.67	1.49	1.26	1.20	1.14
39F1378	37	17-21370	3.14	2.67	3.20	1.96	1.65	1.57	1.49
39F1379	50	17-21500	3.97	3.58	2.78	2.48	2.09	1.99	1.89

CABLE CLAMP ASSEMBLIES

For use with either receptacle or plug

Chromate fin.

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1380	9	17-310-01	1.13	.95	.76	.68	.57	.52	.49
39F1381	15	17-311-01	1.18	.99	.78	.71	.59	.54	.50
39F1382	25	17-312-01	1.24	1.02	.82	.74	.62	.57	.53
39F1383	37	17-313-01	1.28	1.07	.86	.77	.64	.59	.55
39F1384	50	17-314-01	1.31	1.09	.87	.79	.65	.60	.56

Gold iridite

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1385	9	17-310-02	1.13	.95	.76	.68	.57	.52	.49
39F1386	15	17-311-02	1.18	.99	.78	.71	.59	.54	.50
39F1387	25	17-312-02	1.24	1.02	.82	.74	.62	.57	.53
39F1388	37	17-313-02	1.28	1.07	.86	.77	.64	.59	.55
39F1389	50	17-314-02	1.31	1.09	.87	.79	.65	.60	.56

MIN RAC LOCKING ASSEMBLIES
CLEAR CHROMATE FINISH

For positive latching in cable to panel applications. Use with cable clamp assemblies.

Stk. No.	Type	Use With	1-9	10-49	50-99	100-249	250-499	500-999
39F1390	17-529	All except 50 cont. spring	.65	.59	.49	.40	.36	.30
39F1391	17-768	All sizes screw	.72	.65	.54	.44	.40	.33
39F1392	17-770	50 cont. spring	.65	.59	.49	.40	.36	.30
39F1393	17-769	All float screws	.61	.55	.46	.37	.34	.28

AMPHENOL "MS" CONNECTORS

SOLID AND SPLIT SHELL TYPES

Amphenol "MS" connectors approved under Specification MIL-C-5015-D. Connectors built to this new specification mate with connectors built to previous specs. Connectors and fittings will be furnished in olive drab finish as required by current military specs. Alternate insert positions available from stock, special insert materials and finishes are available on special order. By referring to the illustrations and the type descriptions at right, the correct number may be located to properly mate an existing connector or for a new application. Av. Shpg. wt. 3 oz.

3100A. Solid shell wall receptacle with flange. For wall or bulkhead use with conduit to eliminate need for conduit box.
3101A. Solid shell cable receptacle. Provides a detachable splice in cable or conduit. Back shell removable.

3102A. Solid shell box receptacle. Mounts directly on equipment, chassis or panel. Designed for open type wiring.
3106A. Solid shell straight plug. Back shell removable for soldering connections and wire inspection.
3106B. Split shell straight plug. As above except shell halves removable for soldering.
3108A. Solid shell angle plug. For dust and moisture tight angle joint. Angle may be turned for wire takeoff any angle.
3108B. Split shell angle plug. Back shell halves removable for soldering and wire inspection.

Newark can supply the Amphenol "MS" connectors for potting, as well as the pressurized, fireproof and explosion-proof types. Literature and prices on request.

Plug Dust Cap	1-49	50-99	100-999	Fits Conn. Size	Dust Cap	1-49	50-99	100-999
9760-10P	.75	.63	.50	10S, 10SL	9760-10	.50	.41	.33
9760-12P	.83	.69	.55	12, 12S, 12SL	9760-12	.56	.46	.37
9760-14P	.95	.79	.63	14, 14S	9760-14	.60	.50	.40
9760-16P	1.08	.90	.72	16, 16S	9760-16	.66	.55	.44
9760-18P	1.11	.93	.74	18	9760-18	.78	.65	.52
9760-20P	1.14	.95	.76	20	9760-20	.86	.71	.57
9760-22P	1.43	1.19	.95	22	9760-22	.98	.81	.75
9760-24P	1.71	1.43	1.14	24	9760-24	1.14	.95	.76
9760-28P	1.80	1.50	1.20	28	9760-28	1.37	1.14	.91
9760-32P	2.64	2.20	1.76	32	9760-32	1.59	1.32	1.06
9760-36P	2.73	2.28	1.82	36	9760-36	1.76	1.46	1.17

97-3057-10-6 Step down cable clamp for size 18 connector. **1-49**.. **.67** **50-99**.. **.53**

97-3057-12-6 Step down cable clamp for size 20 and 22 connectors. **1-49**.. **.67** **50-99**.. **.53**

Cable Clamp	Fits Connector Size	1-49	50-99	100-999	Cable Clamp	Fits Connector Size	1-49	50-99	100-999	Water Proof Cable Clamp	1-49	50-99	100-999
3057-3	8, 10S	.56	.46	.37	3057-12	20, 22	....	....	....	....	.75	.63	.50
3057-4	10SL, 12, 12S	.57	.48	.38	3057-16	24, 28	....	....	....	....	.92	.76	.61
3057-6	12SL, 14, 14S	.57	.48	.38	3057-20	32	.68	.56	.45	9767-6	1.13	.94	.75
3057-8	16, 16S	.59	.49	.39	3057-24	36	.69	.58	.46	9767-8	1.56	1.20	1.04
3057-10	18	.71	.59	.47	3057-28	40	.87	.73	.58	9767-10	1.94	1.61	1.23
					3057-32	44	....	....	....		2.33	1.94	1.55

3106B

3100A

3101A

3102A

3106A

3108A

3108B

9760

3057

Shell Insert	MS/3100 A			MS/3101 A			MS/3102 A			MS/3106 A			MS/3106 B			MS/3108 A			MS/3108 B		
	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999
8S-1P	1.19	.99	.79	1.14	.95	.76	.77	.64	.51	1.04	.86	.69	......	......	......	1.40	1.16	.93	......	......	......
8S-1S	1.17	.98	.78	1.13	.94	.75	.75	.63	.50	1.02	.85	.68	......	......	......	1.38	1.15	.92	......	......	......
10S-2P	1.05	.88	.70	.90	.75	.66	.53	.44	.35	.92	.76	.61	......	......	......	1.56	1.30	1.04	.96	.80	.64
10S-2S	1.05	.88	.70	.90	.75	.60	.53	.44	.35	.92	.76	.61	......	......	......	1.56	1.30	1.04	.96	.80	.64
10SL-3P	.92	.76	.61	.87	.73	.58	.65	.54	.43	......	......	......	......	......	......	......	......	......	......	......	......
10SL-3S	......	......	......	......	......	......	......	......	......	.89	.74	.59	......	......	......	1.61	1.34	1.07	1.11	.93	.74
10SL-4P	.84	.70	.56	.80	.66	.53	.57	.48	.38	......	......	......	......	......	......	......	......	......	......	......	......
10SL-4S	......	......	......	......	......	......	......	......	......	.86	.71	.57	......	......	......	1.58	1.31	1.05	1.08	.90	.72
12S-1P	.95	.79	.63	1.05	.86	.70	.60	.50	.40	.99	.83	.66	......	......	......	1.91	1.59	1.27	1.31	1.09	.87
12S-1S	.99	.83	.66	1.10	.91	.73	.65	.54	.43	1.04	.86	.69	......	......	......	1.95	1.63	1.30	1.35	1.13	.90
12S-3P	.87	.73	.58	.98	.81	.65	.53	.44	.35	.92	.76	.61	......	......	......	1.83	1.53	1.22	1.23	1.03	.82
12S-3S	.92	.76	.61	1.02	.85	.68	.57	.48	.38	.96	.80	.64	......	......	......	1.88	1.56	1.25	1.28	1.06	.85
12S-4P	.95	.79	.63	1.05	.88	.70	.60	.50	.40	.99	.83	.66	......	......	......	1.91	1.59	1.27	1.31	1.09	.87
12S-4S	.92	.76	.61	1.02	.85	.68	.57	.48	.38	.96	.80	.64	......	......	......	1.88	1.56	1.25	1.28	1.06	.85
12S-6P	2.96	2.46	1.97	3.06	2.55	2.04	2.61	2.18	1.74	3.00	2.50	2.00	......	......	......	3.92	3.26	2.61	3.32	2.76	2.21
12S-6S	3.12	2.60	2.08	3.23	2.69	2.15	2.78	2.31	1.85	3.17	2.64	2.11	......	......	......	4.08	3.40	2.72	3.48	2.90	2.32
12SL-844P	......	......	......	......	......	......	1.20	1.00	.80	......	......	......	......	......	......	......	......	......	......	......	......
12SL-844S	......	......	......	......	......	......	......	......	......	2.22	1.85	1.48	......	......	......	3.36	2.80	2.24	......	......	......
12-5P	1.07	.89	.71	1.20	1.00	.80	.65	.54	.43	1.07	.89	.71	......	......	......	1.80	1.50	1.20	1.16	.96	.77
12-5S	1.23	1.03	.82	1.37	1.14	.91	.81	.68	.54	1.23	1.03	.82	......	......	......	1.97	1.64	1.31	1.32	1.10	.88
14S-1P	.96	.80	.64	1.16	.96	.77	.62	.51	.41	1.02	.85	.68	1.28	1.06	.85	1.76	1.46	1.17	1.08	.90	.72
14S-1S	1.01	.84	.67	1.20	1.00	.80	.66	.55	.44	1.07	.89	.71	1.32	1.10	.88	1.80	1.50	1.20	1.13	.94	.75
14S-2P	.96	.80	.64	1.16	.96	.77	.62	.51	.41	1.02	.85	.68	1.28	1.06	.85	1.76	1.46	1.17	1.08	.90	.72
14S-2S	1.05	.88	.70	1.25	1.04	.83	.71	.59	.47	1.11	.93	.74	1.37	1.14	.81	1.85	1.54	1.23	1.17	.98	.78
14S-4P	.90	.75	.60	1.10	.91	.73	.56	.46	.37	.96	.80	.64	1.22	1.01	.81	1.70	1.41	1.13	1.02	.85	.68
14S-4S	.93	.78	.62	1.13	.94	.75	.59	.49	.39	.99	.83	.66	1.25	1.04	.83	1.73	1.44	1.15	1.05	.88	.70
14S-5P	1.08	.90	.72	1.28	1.06	.85	.74	.61	.49	1.14	.95	.76	1.40	1.16	.93	1.88	1.56	1.25	1.20	1.00	.80
14S-5S	1.11	.93	.74	1.31	1.09	.87	.77	.64	.51	1.17	.98	.78	1.43	1.19	.95	1.91	1.59	1.27	1.23	1.03	.82
14S-6P	1.19	.99	. 79	1.38	1.15	.92	.84	.70	.56	1.25	1.04	.83	1.50	1.25	1.00	1.98	1.65	1.32	1.31	1.09	.87
14S-6S	1.19	.99	. 79	1.38	1.15	.92	.84	.70	.56	1.25	1.04	.83	1.50	1.25	1.00	1.98	1.65	1.32	1.31	1.09	.87
14S-7P	.96	.80	.64	1.16	.96	.77	.62	.51	.41	1.02	.85	.68	1.28	1.06	.85	1.76	1.46	1.17	1.08	.90	.72
14S-7S	1.01	.84	.67	1.20	1.00	.80	.66	.55	.44	1.07	.89	.71	1.32	1.10	.88	1.80	1.50	1.20	1.13	.94	.75
14S-9P	.92	.76	.61	1.11	.93	.74	.57	.48	.38	.98	.81	.65	1.23	1.03	.82	1.71	1.43	1.14	1.04	.86	.69
14S-9S	.95	.79	.63	1.14	.95	.76	.60	.50	.40	1.01	.84	.67	1.26	1.05	.84	1.74	1.45	1.16	1.07	.89	.71
14S-10P	1.04	.86	.69	1.23	1.03	.82	.69	.58	.46	1.10	.91	.73	1.35	1.13	.90	1.83	1.53	1.22	1.16	.96	.77
14S-10S	1.13	.94	.75	1.32	1.10	.88	.78	.65	.52	1.19	.99	.79	1.44	1.20	.96	1.92	1.60	1.28	1.25	1.04	.83
16S-1P	1.19	.99	.79	1.34	1.11	.89	.81	.68	.54	1.25	1.04	.83	1.52	1.26	1.01	2.48	2.06	1.65	1.43	1.19	.95
16S-1S	1.26	1.05	.84	1.41	1.18	.94	.89	.74	.59	1.32	1.10	.88	1.59	1.33	1.06	2.55	2.13	1.70	1.50	1.25	1.00
16S-3S	1.05	.88	.70	1.20	1.00	.80	.68	.56	.45	1.11	.93	.74	1.38	1.15	.92	2.34	1.95	1.56	1.29	1.08	.86
16S-4P	1.11	.93	.74	1.26	1.05	.84	.74	.61	.49	1.17	.98	.78	1.44	1.20	.96	2.40	2.00	1.60	1.35	1.13	.90
16S-4S	1.14	.95	.76	1.29	1.08	.86	.77	.64	.51	1.20	1.00	.80	1.47	1.23	.98	2.43	2.03	1.62	1.38	1.15	.92
16S-5P	1.11	.93	.74	1.26	1.05	.84	.74	.61	.49	1.17	.98	.78	1.44	1.20	.96	2.40	2.00	1.60	1.35	1.13	.90
16S-5S	1.17	.98	.78	1.32	1.10	.88	.80	.66	.53	1.23	1.03	.82	1.50	1.25	1.00	2.46	2.05	1.64	1.41	1.18	.94
16S-6P	1.19	.99	.79	1.34	1.11	.89	.81	.68	.54	1.25	1.04	.83	1.52	1.26	1.01	2.48	2.06	1.65	1.43	1.19	.95
16S-6S	1.23	1.03	.82	1.38	1.15	.92	.86	.71	.57	1.29	1.08	.86	1.56	1.30	1.04	2.52	2.10	1.68	1.47	1.23	.98

"MS" CONNECTORS

AMPHENOL

Shell Insert	MS/3100			MS/3101			MS/3102			MS/3106						MS/3108					
	A			A			A			A			B			A			B		
	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49-	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999
16S-8P	1.14	.95	.76	1.29	1.08	.86	.77	.64	.51	1.20	1.00	.80	1.47	1.23	.98	2.43	2.03	1.62	1.38	1.15	.92
16S-8S	1.20	1.00	.80	1.35	1.13	.90	.83	.69	.55	1.26	1.05	.84	1.53	1.28	1.02	2.49	2.08	1.66	1.44	1.20	.96
16S-15P	1.19	.99	.79	1.34	1.11	.89	.81	.68	.54	1.25	1.04	.83	1.52	1.26	1.01	2.48	2.06	1.65	1.43	1.19	.95
16S-15S	1.22	1.01	.81	1.37	1.14	.91	.84	.70	.56	1.28	1.06	.85	1.55	1.29	1.03	2.51	2.09	1.67	1.46	1.21	.97
16-2P	1.10	.91	.73	1.31	1.09	.87	.74	.61	.49	1.28	1.06	.85	......	......	......	2.31	1.93	1.54	1.40	1.16	.93
16-2S	1.25	1.04	.83	1.46	1.21	.97	.89	.74	.59	1.43	1.19	.95	......	......	......	2.46	2.05	1.64	1.55	1.29	1.03
16-7P	1.40	1.16	.93	1.61	1.34	1.07	1.04	.86	.69	1.58	1.31	1.05	......	......	......	2.61	2.18	1.74	1.70	1.41	1.13
16-7S	1.53	1.28	1.02	1.74	1.45	1.16	1.17	.98	.78	1.71	1.43	1.14	......	......	......	2.75	2.29	1.83	1.83	1.53	1.22
16-9P	1.26	1.05	.84	1.47	1.23	.98	.90	.75	.60	1.44	1.20	.96	......	......	......	2.48	2.06	1.65	1.56	1.30	1.04
16-9S	1.34	1.11	.89	1.55	1.29	1.03	.98	.81	.65	1.52	1.26	1.01	......	......	......	2.55	2.13	1.70	1.64	1.36	1.09
16-10P	1.19	.99	.79	1.40	1.16	.93	.83	.69	.55	1.37	1.14	.91	......	......	......	2.40	2.00	1.60	1.49	1.24	.99
16-10S	1.41	1.18	.94	1.62	1.35	1.08	1.05	.88	.70	1.59	1.33	1.06	......	......	......	2.63	2.19	1.75	1.71	1.43	1.14
16-11P	1.08	.90	.72	1.29	1.08	.86	.72	.60	.48	1.26	1.05	.84	......	......	......	2.30	1.91	1.53	1.38	1.15	.92
16-11S	1.26	1.05	.84	1.47	1.23	.98	.90	.75	.60	1.44	1.20	.96	......	......	......	2.48	2.06	1.65	1.56	1.30	1.04
16-12P	1.44	1.20	.96	1.65	1.38	1.10	1.08	.90	.72	1.62	1.35	1.08	......	......	......	2.66	2.21	1.77	1.74	1.45	1.16
16-13P	3.29	2.74	2.19	3.50	2.91	2.33	2.93	2.44	1.95	3.47	2.89	2.31	......	......	......	4.50	3.75	3.00	3.59	2.99	2.39
16-13S	3.84	3.20	2.56	4.05	3.38	2.70	3.48	2.90	2.32	4.02	3.35	2.68	......	......	......	5.06	4.21	3.37	4.14	3.45	2.76
18-1P	1.50	1.25	1.00	1.76	1.46	1.17	1.07	.89	.71	1.67	1.39	1.11	2.06	1.71	1.37	3.05	2.54	2.03	1.95	1.63	1.30
18-1S	1.70	1.41	1.13	1.95	1.63	1.30	1.26	1.05	.84	1.86	1.55	1.24	2.25	1.88	1.50	3.24	2.70	2.16	2.15	1.79	1.43
18-3P	1.20	1.00	.80	1.46	1.21	.97	.77	.64	.51	1.37	1.14	.91	1.76	1.46	1.17	2.75	2.29	1.83	1.65	1.38	1.10
18-3S	1.41	1.18	.94	1.67	1.39	1.11	.98	.81	.65	1.58	1.31	1.05	1.97	1.64	1.31	2.96	2.46	1.97	1.86	1.55	1.24
18-4P	1.23	1.03	.82	1.49	1.24	.99	.80	.66	.53	1.40	1.16	.93	1.79	1.49	1.19	2.78	2.31	1.85	1.68	1.40	1.12
18-4S	1.34	1.11	.89	1.59	1.33	1.06	.90	.75	.60	1.50	1.25	1.00	1.89	1.58	1.26	2.88	2.40	1.92	1.79	1.49	1.19
18-5P	1.65	1.38	1.10	1.91	1.59	1.27	1.22	1.01	.81	1.82	1.51	1.21	2.21	1.84	1.47	3.20	2.66	2.13	2.10	1.75	1.40
18-5S	1.41	1.18	.94	1.67	1.39	1.11	.98	.81	.65	1.58	1.31	1.05	1.97	1.64	1.31	2.96	2.46	1.97	1.86	1.55	1.24
18-6P	1.41	1.18	.94	1.67	1.39	1.11	.98	.81	.65	1.58	1.31	1.05	1.97	1.64	1.31	2.96	2.46	1.97	1.86	1.55	1.24
18-6S	1.70	1.41	1.13	1.95	1.63	1.30	1.26	1.05	.84	1.86	1.55	1.24	2.25	1.88	1.50	3.24	2.70	2.16	2.15	1.79	1.43
18-7P	1.23	1.03	.82	1.49	1.24	.99	.80	.66	.53	1.40	1.16	.93	1.79	1.49	1.19	2.78	2.31	1.85	1.68	1.40	1.12
18-8P	1.49	1.24	.99	1.74	1.45	1.16	1.05	.88	.70	1.65	1.38	1.10	2.04	1.70	1.36	3.03	2.53	2.02	1.94	1.61	1.29
18-8S	1.62	1.35	1.08	1.88	1.56	1.25	1.19	.99	.79	1.79	1.49	1.19	2.18	1.81	1.45	3.17	2.64	2.11	2.07	1.73	1.38
18-9P	1.44	1.20	.96	1.70	1.41	1.13	1.01	.84	.67	1.61	1.34	1.07	2.00	1.66	1.33	2.99	2.49	1.99	1.89	1.58	1.26
18-9S	1.61	1.34	1.07	1.86	1.55	1.24	1.17	.98	.78	1.77	1.48	1.18	2.16	1.80	1.44	3.15	2.63	2.10	2.06	1.71	1.37
18-10P	1.37	1.14	.91	1.62	1.35	1.08	.93	.78	.62	1.53	1.28	1.02	1.92	1.60	1.28	2.91	2.43	1.94	1.82	1.51	1.21
18-10S	1.71	1.43	1.14	1.97	1.64	1.31	1.28	1.06	.85	1.88	1.56	1.25	2.27	1.89	1.51	3.26	2.71	2.17	2.16	1.80	1.44
18-11P	1.52	1.26	1.01	1.77	1.48	1.18	1.08	.90	.72	1.68	1.40	1.12	2.07	1.73	1.38	3.06	2.55	2.04	1.97	1.64	1.31
18-11S	1.70	1.41	1.13	1.95	1.63	1.30	1.26	1.05	.84	1.86	1.55	1.24	2.25	1.88	1.50	3.24	2.70	2.16	2.15	1.79	1.43
18-12P	1.43	1.19	.95	1.68	1.40	1.12	.99	.83	.66	1.59	1.33	1.06	1.98	1.65	1.32	2.97	2.48	1.98	1.88	1.56	1.25
18-12S	1.56	1.30	1.04	1.82	1.51	1.21	1.13	.94	.75	1.73	1.44	1.15	2.12	1.76	1.41	3.11	2.59	2.07	2.01	1.68	1.34
18-13P	1.56	1.30	1.04	1.82	1.51	1.21	1.13	.94	.75	1.73	1.44	1.15	2.12	1.76	1.41	3.11	2.59	2.07	2.01	1.68	1.34
18-16P	1.38	1.15	.92	1.64	1.36	1.09	.95	.79	.63	1.55	1.29	1.03	1.94	1.61	1.29	2.93	2.44	1.95	1.83	1.53	1.22
18-16S	1.62	1.35	1.08	1.88	1.56	1.25	1.19	.99	.79	1.79	1.49	1.19	2.18	1.81	1.45	3.17	2.64	2.11	2.07	1.73	1.38
18-18P	1.52	1.26	1.01	1.77	1.48	1.18	1.08	.90	.72	1.68	1.40	1.12	2.07	1.73	1.38	3.06	2.55	2.04	1.97	1.64	1.31
18-18S	1.68	1.40	1.12	1.94	1.61	1.29	1.25	1.04	.83	1.85	1.54	1.23	2.24	1.86	1.49	3.23	2.69	2.15	2.13	1.78	1.42
18-19P	2.10	1.75	1.40	2.36	1.96	1.57	1.67	1.39	1.11	2.27	1.89	1.51	2.66	2.21	1.77	3.65	3.04	2.43	2.55	2.13	1.70
18-19S	1.89	1.58	1.26	2.15	1.79	1.43	1.46	1.21	.97	2.06	1.71	1.37	2.45	2.04	1.63	3.44	2.86	2.29	2.34	1.95	1.56
18-20P	1.29	1.08	.86	1.55	1.29	1.03	.86	.71	.57	1.46	1.21	.97	1.85	1.54	1.23	2.84	2.36	1.89	1.74	1.45	1.16
18-20S	1.49	1.24	.99	1.74	1.45	1.16	1.05	.88	.70	1.65	1.38	1.10	2.04	1.70	1.36	3.03	2.53	2.02	1.92	1.61	1.29
18-22P	1.32	1.10	.88	1.58	1.31	1.05	.89	.74	.59	1.49	1.24	.99	1.88	1.56	1.25	2.87	2.39	1.91	1.77	1.48	1.18
18-22S	1.37	1.14	.91	1.62	1.35	1.08	.93	.78	.62	1.53	1.28	1.02	1.92	1.60	1.28	2.91	2.43	1.94	1.82	1.51	1.21
18-29P	1.38	1.15	.92	1.64	1.36	1.09	.95	.79	.63	1.55	1.29	1.03	1.94	1.61	1.29	2.93	2.44	1.95	1.83	1.53	1.22
18-29S	1.56	1.30	1.04	1.82	1.51	1.21	1.13	.94	.75	1.73	1.44	1.15	2.12	1.76	1.41	3.11	2.59	2.07	2.01	1.68	1.34
18-420P	2.43	2.03	1.62	2.81	2.34	1.87	2.27	1.89	1.51	3.09	2.58	2.06	3.42	2.85	2.28	4.65	3.88	3.10	3.45	2.88	2.30
18-420S	2.76	2.30	1.84	2.99	2.49	1.99	2.45	2.04	1.63	3.27	2.73	2.18	3.60	3.00	2.40	4.83	4.03	3.22	3.63	3.03	2.42
20-2P	1.82	1.51	1.21	2.07	1.73	1.38	1.41	1.18	.94	2.09	1.74	1.39	2.30	1.91	1.53	3.68	3.06	2.45	2.37	1.98	1.58
20-2S	2.03	1.69	1.35	2.28	1.90	1.52	1.62	1.35	1.08	2.30	1.91	1.53	2.51	2.09	1.67	3.89	3.24	2.59	2.58	2.15	1.72
20-3P	1.46	1.21	.97	1.71	1.43	1.14	1.05	.88	.70	1.73	1.44	1.15	1.94	1.61	1.29	3.32	2.76	2.21	2.01	1.68	1.34
20-3S	1.86	1.55	1.24	2.12	1.76	1.41	1.46	1.21	.97	2.13	1.78	1.42	2.34	1.95	1.56	3.72	3.10	2.48	2.42	2.01	1.61
20-4P	1.47	1.23	.98	1.73	1.44	1.15	1.07	.89	.71	1.74	1.45	1.16	1.95	1.63	1.30	3.33	2.78	2.22	2.03	1.69	1.35
20-4S	1.70	1.41	1.13	1.95	1.63	1.30	1.29	1.08	.86	1.97	1.64	1.31	2.18	1.81	1.45	3.56	2.96	2.37	2.25	1.88	1.50
20-5P	1.38	1.15	.92	1.64	1.36	1.09	.98	.81	.65	1.65	1.38	1.10	1.86	1.55	1.24	3.24	2.70	2.16	1.94	1.61	1.29
20-5S	1.50	1.25	1.00	1.76	1.46	1.17	1.10	.91	.73	1.77	1.48	1.18	1.98	1.65	1.32	3.36	2.80	2.24	2.06	1.71	1.37
20-6P	1.35	1.13	.90	1.61	1.34	1.07	.95	.79	.63	1.62	1.35	1.08	1.83	1.53	1.22	3.21	2.68	2.14	1.91	1.59	1.27
20-6S	1.50	1.25	1.00	1.76	1.46	1.17	1.10	.91	.73	1.77	1.48	1.18	1.98	1.65	1.32	3.36	2.80	2.24	2.06	1.71	1.37
20-7P	1.47	1.23	.98	1.73	1.44	1.15	1.07	.89	.71	1.74	1.45	1.16	1.95	1.63	1.30	3.33	2.78	2.22	2.03	1.69	1.35
20-7S	1.67	1.39	1.11	1.92	1.60	1.28	1.26	1.05	.84	1.94	1.61	1.29	2.15	1.79	1.43	3.53	2.94	2.35	2.22	1.85	1.48
20-8P	1.77	1.48	1.18	2.03	1.69	1.35	1.37	1.14	.91	2.04	1.70	1.36	2.25	1.88	1.50	3.63	3.03	2.42	2.33	1.94	1.55
20-8S	2.10	1.75	1.40	2.36	1.96	1.57	1.70	1.41	1.13	2.37	1.98	1.58	2.58	2.15	1.72	3.96	3.30	2.64	2.66	2.21	1.77
20-9P	1.77	1.48	1.18	2.03	1.69	1.35	1.37	1.14	.91	2.04	1.70	1.36	2.25	1.88	1.50	3.63	3.03	2.42	2.33	1.94	1.55
20-9S	2.00	1.66	1.33	2.25	1.88	1.50	1.59	1.33	1.06	2.27	1.89	1.51	2.48	2.06	1.65	3.86	3.21	2.57	2.55	2.13	1.70
20-11P	1.89	1.58	1.26	2.15	1.79	1.43	1.49	1.24	.99	2.16	1.80	1.44	2.37	1.98	1.58	3.75	3.13	2.50	2.45	2.04	1.63
20-11S	3.05	2.54	2.03	3.30	2.75	2.20	2.64	2.20	1.76	3.32	2.76	2.21	3.53	2.94	2.35	4.91	4.09	3.27	3.60	3.00	2.40
20-12P	1.71	1.43	1.14	1.97	1.64	1.31	1.31	1.09	.87	1.98	1.65	1.32	2.19	1.83	1.46	3.57	2.98	2.38	2.27	1.89	1.51
20-15P	1.62	1.35	1.08	1.88	1.56	1.25	1.22	1.01	.81	1.89	1.58	1.26	2.10	1.75	1.40	3.48	2.90	2.32	2.18	1.81	1.45
20-15S	2.30	1.91	1.53	2.55	2.13	1.70	1.89	1.58	1.26	2.57	2.14	1.71	2.78	2.31	1.85	4.16	3.46	2.77	2.85	2.38	1.90
20-16P	1.59	1.33	1.06	1.85	1.54	1.23	1.19	.99	.79	1.86	1.55	1.24	2.07	1.73	1.38	3.45	2.88	2.30	2.15	1.79	1.43
20-16S	1.91	1.59	1.27	2.16	1.80	1.44	1.50	1.25	1.00	2.18	1.81	1.45	2.39	1.99	1.59	3.77	3.14	2.51	2.46	2.05	1.64
20-17P	1.77	1.48	1.18	2.03	1.69	1.35	1.37	1.14	.91	2.04	1.70	1.36	2.25	1.88	1.50	3.63	3.03	2.42	2.33	1.94	1.55
20-17S	2.03	1.69	1.35	2.28	1.90	1.52	1.62	1.35	1.08	2.30	1.91	1.53	2.51	2.09	1.67	3.89	3.24	2.59	2.58	2.15	1.72
20-18P	1.80	1.50	1.20	2.06	1.71	1.37	1.40	1.16	.93	2.07	1.73	1.38	2.28	1.90	1.52	3.66	3.05	2.44	2.36	1.96	1.57
20-18S	2.00	1.66	1.33	2.25	1.88	1.50	1.59	1.33	1.06	2.27	1.89	1.51	2.48	2.06	1.65	3.86	3.21	2.57	2.55	2.13	1.70
20-22P	2.06	1.71	1.37	2.31	1.93	1.54	1.65	1.38	1.10	2.33	1.94	1.55	2.54	2.11	1.69	3.92	3.26	2.61	2.61	2.16	1.74
20-22S	2.45	2.04	1.63	2.70	2.25	1.80	2.04	1.70	1.36	2.72	2.26	1.81	2.93	2.44	1.95	4.31	3.59	2.87	3.00	2.50	2.00
20-23P	1.65	1.38	1.10	1.91	1.59	1.27	1.25	1.04	.83	1.92	1.60	1.28	2.13	1.78	1.42	3.51	2.93	2.34	2.21	1.84	1.47
20-23S	1.98	1.65	1.32	2.24	1.86	1.49	1.58	1.31	1.05	2.25	1.88	1.50	2.46	2.05	1.64	3.84	3.20	2.56	2.54	2.11	1.69

AMPHENOL

"MS" CONNECTORS

NEWARK CAN SUPPLY
ALL AMPHENOL CONNECTORS

Shell Insert	MS/3100 A			MS/3101 A			MS/3102 A			MS/3106						MS/3108					
										A			B			A			B		
	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999
20-24P	1.77	1.48	1.18	2.03	1.69	1.35	1.37	1.14	.91	2.04	1.70	1.36	2.25	1.88	1.50	3.63	3.03	2.42	2.33	1.94	1.55
20-24S	2.12	1.76	1.41	2.37	1.98	1.58	1.71	1.43	1.14	2.39	1.99	1.59	2.60	2.16	1.73	3.98	3.31	2.65	2.67	2.23	1.78
20-27P	1.67	1.39	1.11	1.92	1.60	1.28	1.26	1.05	.84	1.94	1.61	1.29	2.15	1.79	1.43	3.53	2.94	2.35	2.22	1.85	1.48
20-27S	1.98	1.65	1.32	2.24	1.86	1.49	1.58	1.31	1.05	2.25	1.88	1.50	2.46	2.05	1.64	3.84	3.20	2.56	2.54	2.11	1.69
20-29P	1.80	1.50	1.20	2.06	1.71	1.37	1.40	1.16	.93	2.07	1.73	1.38	2.28	1.90	1.52	3.66	3.05	2.44	2.36	1.96	1.57
20-29S	2.18	1.81	1.45	2.43	2.03	1.62	1.77	1.48	1.18	2.45	2.04	1.63	2.66	2.21	1.77	4.04	3.36	2.69	2.73	2.28	1.82
20-33P	1.82	1.51	1.21	2.07	1.73	1.38	1.41	1.18	.94	2.09	1.74	1.39	2.30	1.91	1.53	3.68	3.06	2.45	2.37	1.98	1.58
20-33S	2.00	1.66	1.33	2.25	1.88	1.50	1.59	1.33	1.06	2.27	1.89	1.51	2.48	2.06	1.65	3.86	3.21	2.57	2.55	2.13	1.70
22-1P	1.82	1.51	1.21	1.98	1.65	1.32	1.31	1.09	.87	2.15	1.79	1.43	2.39	1.99	1.59	3.68	3.06	2.45	2.30	1.91	1.53
22-1S	2.19	1.83	1.46	2.36	1.96	1.57	1.68	1.40	1.12	2.52	2.10	1.68	2.76	2.30	1.84	4.05	3.38	2.70	2.67	2.23	1.78
22-2P	1.98	1.65	1.32	2.15	1.79	1.43	1.47	1.23	.98	2.31	1.93	1.54	2.55	2.13	1.70	3.84	3.20	2.56	2.46	2.05	1.64
22-2S	2.37	1.98	1.58	2.54	2.11	1.69	1.86	1.55	1.24	2.70	2.25	1.80	2.94	2.45	1.96	4.23	3.53	2.82	2.85	2.38	1.90
22-4P	2.01	1.68	1.34	2.18	1.81	1.45	1.50	1.25	1.00	2.34	1.95	1.56	2.58	2.15	1.72	3.87	3.23	2.58	2.49	2.08	1.66
22-4S	2.57	2.14	1.71	2.73	2.28	1.82	2.06	1.71	1.37	2.90	2.41	1.93	3.14	2.61	2.09	4.43	3.69	2.95	3.05	2.54	2.03
22-5P	1.80	1.50	1.20	1.97	1.64	1.31	1.29	1.08	.85	2.13	1.78	1.42	2.37	1.98	1.58	3.66	3.05	2.44	2.28	1.90	1.52
22-5S	2.27	1.89	1.51	2.43	2.03	1.62	1.76	1.46	1.17	2.60	2.16	1.73	2.84	2.36	1.89	4.13	3.44	2.75	2.75	2.29	1.83
22-6P	1.94	1.61	1.29	2.10	1.75	1.40	1.43	1.19	.95	2.27	1.89	1.51	2.51	2.09	1.67	3.80	3.16	2.53	2.42	2.01	1.61
22-7P	1.97	1.54	1.31	2.13	1.78	1.42	1.46	1.21	.97	2.30	1.91	1.53	2.54	2.11	1.69	3.83	3.19	2.55	2.45	2.04	1.63
22-7S	2.36	1.96	1.57	2.52	2.10	1.68	1.85	1.54	1.23	2.69	2.24	1.79	2.93	2.44	1.95	4.22	3.51	2.81	2.84	2.36	1.89
22-8P	1.55	1.29	1.03	1.71	1.43	1.14	1.04	.85	.69	1.88	1.56	1.25	2.12	1.76	1.41	3.41	2.84	2.27	2.03	1.69	1.35
22-8S	1.94	1.61	1.29	2.10	1.75	1.40	1.43	1.19	.95	2.27	1.89	1.51	2.51	2.09	1.67	3.80	3.16	2.53	2.42	2.01	1.61
22-9P	1.64	1.36	1.09	1.80	1.50	1.20	1.13	.94	.75	1.97	1.64	1.31	2.21	1.84	1.47	3.50	2.91	2.33	2.12	1.76	1.41
22-9S	2.06	1.71	1.37	2.22	1.85	1.48	1.55	1.29	1.03	2.39	1.99	1.59	2.63	2.19	1.75	3.92	3.26	2.61	2.54	2.11	1.69
22-10P	1.59	1.33	1.06	1.76	1.46	1.17	1.08	.90	.72	1.92	1.60	1.28	2.16	1.80	1.44	3.45	2.88	2.30	2.07	1.73	1.38
22-10S	1.77	1.48	1.18	1.94	1.61	1.29	1.26	1.05	.84	2.10	1.75	1.40	......	1.95	1.56	......	3.03	2.42	......	1.88	1.50
22-11P	1.47	1.23	.98	1.64	1.36	1.09	.96	.80	.64	1.80	1.50	1.20	2.04	1.70	1.36	3.33	2.78	2.22	1.95	1.63	1.30
22-11S	1.68	1.40	1.12	1.85	1.54	1.23	1.17	.98	.78	2.01	1.68	1.34	2.25	1.88	1.50	3.54	2.95	2.36	2.16	1.80	1.44
22-12P	2.00	1.66	1.33	2.16	1.80	1.44	1.49	1.24	.99	2.33	1.94	1.55	2.57	2.14	1.71	3.86	3.21	2.57	2.48	2.06	1.65
22-12S	2.54	2.11	1.69	2.70	2.25	1.80	2.03	1.69	1.35	2.87	2.39	1.91	3.11	2.59	2.07	4.40	3.66	2.93	3.02	2.51	2.01
22-13P	1.82	1.51	1.21	1.98	1.65	1.32	1.31	1.09	.87	2.15	1.79	1.43	2.39	1.99	1.59	3.68	3.06	2.45	2.30	1.91	1.53
22-13S	2.00	1.66	1.33	2.16	1.80	1.44	1.49	1.24	.99	2.33	1.94	1.55	2.57	2.14	1.71	3.86	3.21	2.57	2.48	2.06	1.65
22-14P	2.00	1.66	1.33	2.16	1.80	1.44	1.49	1.24	.99	2.33	1.94	1.55	2.57	2.14	1.71	3.86	3.21	2.57	2.48	2.06	1.65
22-14S	2.39	1.99	1.59	2.55	2.13	1.70	1.88	1.56	1.25	2.72	2.26	1.81	2.96	2.46	1.97	4.25	3.54	2.83	2.87	2.39	1.91
22-15P	2.01	1.68	1.34	2.18	1.81	1.45	1.50	1.25	1.00	2.34	1.95	1.56	2.58	2.15	1.72	3.87	3.23	2.58	2.49	2.08	1.66
22-15S	2.39	1.99	1.59	2.55	2.13	1.70	1.88	1.56	1.25	2.72	2.26	1.81	2.96	2.46	1.97	4.25	3.54	2.83	2.87	2.39	1.91
22-16P	1.95	1.63	1.30	2.12	1.76	1.41	1.44	1.20	.96	2.28	1.90	1.52	2.52	2.10	1.68	3.81	3.18	2.54	2.43	2.03	1.62
22-16S	2.19	1.83	1.46	2.36	1.96	1.57	1.68	1.40	1.12	2.52	2.10	1.68	2.76	2.30	1.84	4.05	3.38	2.70	2.67	2.23	1.78
22-17P	1.85	1.54	1.23	2.01	1.68	1.34	1.34	1.11	.89	2.18	1.81	1.45	2.42	2.01	1.61	3.71	3.09	2.47	2.33	1.94	1.55
22-17S	2.21	1.84	1.47	2.37	1.98	1.58	1.70	1.41	1.13	2.54	2.11	1.69	2.78	2.31	1.85	4.07	3.39	2.71	2.69	2.24	1.79
22-18P	1.71	1.43	1.14	1.88	1.56	1.25	1.20	1.00	.80	2.04	1.70	1.36	2.28	1.90	1.52	3.57	2.98	2.38	2.19	1.83	1.46
22-18S	1.86	1.55	1.24	2.03	1.69	1.35	1.35	1.13	.90	2.19	1.83	1.46	2.43	2.03	1.62	3.72	3.10	2.48	2.34	1.95	1.56
22-19P	2.28	1.90	1.52	2.45	2.04	1.63	1.77	1.48	1.18	2.61	2.18	1.74	2.85	2.38	1.90	4.14	3.45	2.76	2.76	2.30	1.84
22-19S	2.27	1.89	1.51	2.43	2.03	1.62	1.76	1.46	1.17	2.60	2.16	1.73	2.84	2.36	1.89	4.13	3.44	2.75	2.75	2.29	1.83
22-20P	1.77	1.48	1.18	1.94	1.61	1.29	1.26	1.05	.84	2.10	1.75	1.40	2.34	1.95	1.56	3.63	3.03	2.42	2.25	1.88	1.50
22-20S	2.12	1.76	1.41	2.28	1.90	1.52	1.61	1.84	1.07	2.45	2.04	1.63	3.69	2.24	1.79	3.98	3.31	2.65	2.60	2.16	1.73
22-22P	2.34	1.95	1.56	2.51	2.09	1.67	1.83	1.63	1.22	2.67	2.23	1.78	2.91	2.43	1.94	4.20	3.50	2.80	2.82	2.35	1.88
22-22S	2.87	2.39	1.91	3.03	2.53	2.02	2.36	1.96	1.57	3.20	2.66	2.13	3.44	2.86	2.29	4.73	3.94	3.15	3.35	2.79	2.23
22-23P	2.12	1.76	1.41	2.28	1.90	1.52	1.61	1.34	1.07	2.45	2.04	1.63	2.69	2.24	1.79	3.98	3.31	2.65	2.60	2.16	1.73
22-23S	2.72	2.26	1.81	2.88	2.40	1.92	2.21	1.84	1.47	3.05	2.54	2.03	3.29	2.74	2.19	4.58	3.81	3.05	3.20	2.66	2.13
22-26P	1.88	1.56	1.25	2.04	1.70	1.36	1.37	1.14	.91	2.21	1.84	1.47	2.45	2.04	1.63	3.74	3.11	2.49	2.36	1.96	1.57
22-26S	2.15	1.79	1.43	2.31	1.93	1.54	1.64	1.36	1.09	2.48	2.06	1.65	2.72	2.26	1.81	4.01	3.34	2.67	2.63	2.19	1.75
22-27P	1.97	1.64	1.31	2.13	1.78	1.42	1.46	1.21	.97	2.30	1.91	1.53	2.54	2.11	1.69	3.83	3.19	2.55	2.45	2.04	1.63
22-27S	2.42	2.01	1.61	2.58	2.15	1.72	1.91	1.59	1.27	2.75	2.29	1.83	2.99	2.49	1.99	4.28	3.56	2.85	2.90	2.41	1.93
22-28P	2.04	1.70	1.36	2.21	1.84	1.47	1.53	1.28	1.02	2.37	1.98	1.58	2.61	2.18	1.74	3.90	3.25	2.60	2.52	2.10	1.68
22-28S	2.76	2.30	1.84	2.93	2.44	1.95	2.25	1.88	1.50	3.09	2.58	2.06	3.33	2.78	2.22	4.62	3.85	3.08	3.24	2.70	2.16
22-29P	2.04	1.70	1.36	2.21	1.84	1.47	1.53	1.28	1.02	2.37	1.98	1.58	2.61	2.18	1.74	3.90	3.25	2.60	2.52	2.10	1.68
22-29S	2.33	1.94	1.55	2.49	2.08	1.66	1.82	1.51	1.21	2.66	2.21	1.77	2.90	2.41	1.93	4.19	3.49	2.79	2.81	2.34	1.87
22-34P	1.70	1.41	1.13	1.86	1.55	1.24	1.19	.99	.79	2.03	1.69	1.35	2.27	1.89	1.51	3.56	2.96	2.37	2.18	1.81	1.45
22-34S	2.12	1.76	1.41	2.28	1.90	1.52	1.61	1.34	1.07	2.45	2.04	1.63	2.69	2.24	1.79	3.98	3.31	2.65	2.60	2.16	1.73
22-36P	9.39	7.83	6.26	9.56	7.96	6.37	8.88	7.40	5.92	9.72	8.85	6.48	9.96	8.30	6.64	11.25	9.38	7.50	9.87	8.23	6.58
22-36S	10.29	8.58	6.86	10.46	8.71	6.97	9.78	8.15	6.52	10.62	8.10	7.08	10.86	9.05	7.24	12.15	10.13	8.10	10.77	8.98	7.18
24-404P	9.39	7.83	6.26	9.56	7.96	6.37	8.88	7.40	5.92	9.72	8.10	6.48	9.96	8.30	6.64	11.25	9.38	7.50	9.87	8.23	6.58
24-404S	10.29	8.58	6.86	10.46	8.71	6.97	9.78	8.15	6.52	10.62	8.85	7.08	10.86	9.05	7.24	12.15	10.13	8.10	10.77	8.98	7.18
24-1P	2.16	1.80	1.44	2.36	1.96	1.57	1.64	1.36	1.09	2.51	2.09	1.67	2.73	2.28	1.82	4.38	3.65	2.92	2.60	2.16	1.73
24-1S	2.60	2.16	1.73	2.79	2.33	1.86	2.07	1.73	1.38	2.94	2.45	1.96	3.17	2.64	2.11	4.82	4.01	3.21	3.03	2.53	2.02
24-2P	2.21	1.84	1.47	2.40	2.00	1.60	1.68	1.40	1.12	2.55	2.13	1.70	2.78	2.31	1.85	4.43	3.69	2.95	2.64	2.20	1.76
24-2S	2.63	2.19	1.75	2.82	2.35	1.88	2.10	1.75	1.40	2.97	2.48	1.98	3.20	2.66	2.13	4.85	4.04	3.23	3.06	2.55	2.04
24-5P	2.42	2.01	1.61	2.61	2.18	1.74	1.89	1.58	1.26	2.76	2.30	1.84	2.99	2.49	1.99	4.64	3.86	3.09	2.85	2.38	1.90
24-5S	2.48	2.06	1.65	2.67	2.23	1.78	1.95	1.63	1.30	2.82	2.35	1.88	3.05	2.54	2.03	4.70	3.91	3.13	2.91	2.43	1.94
24-6P	2.27	1.89	1.51	2.46	2.05	1.64	1.74	1.45	1.16	2.61	2.18	1.74	2.84	2.36	1.89	4.49	3.74	2.99	2.70	2.25	1.80
24-6S	2.96	2.46	1.97	3.15	2.63	2.10	2.43	2.03	1.62	3.30	2.75	2.20	3.53	2.94	2.35	5.18	4.31	3.45	3.39	2.83	2.26
24-7P	2.24	1.86	1.49	2.43	2.03	1.62	1.71	1.43	1.14	2.58	2.15	1.72	2.81	2.34	1.87	4.46	3.71	2.97	2.67	2.23	1.78
24-7S	2.60	2.16	1.73	2.79	2.33	1.86	2.07	1.73	1.38	2.94	2.45	1.96	3.17	2.64	2.11	4.82	4.01	3.21	3.03	2.53	2.02
24-9P	2.54	2.11	1.69	2.73	2.28	1.82	2.01	1.68	1.34	2.88	2.40	1.92	3.11	2.59	2.07	4.76	3.96	3.17	2.97	2.48	1.98
24-9S	2.73	2.38	1.82	2.93	2.44	1.95	2.21	1.84	1.47	3.08	2.56	2.05	3.30	2.75	2.20	4.95	4.13	3.30	3.17	2.64	2.11
24-10P	3.18	2.65	2.12	3.38	2.81	2.25	2.66	2.21	1.77	3.53	2.94	2.35	3.75	3.13	2.50	5.40	4.50	3.60	3.62	3.01	2.41
24-10S	4.28	3.56	2.85	4.47	3.73	2.98	3.75	3.13	2.50	4.62	3.85	3.08	4.85	4.04	3.23	6.50	5.41	4.33	4.71	3.93	3.14
24-11P	2.79	2.33	1.86	2.99	2.49	1.99	2.27	1.89	1.51	3.14	2.61	2.09	3.36	2.80	2.24	5.01	4.18	3.34	3.23	2.69	2.15
24-11S	3.48	2.90	2.32	3.68	3.06	2.45	2.96	2.46	1.97	3.83	3.19	2.55	4.05	3.38	2.70	5.70	4.75	3.80	3.92	3.26	2.61
24-12P	2.81	2.34	1.87	3.00	2.50	2.00	2.28	1.90	1.52	3.15	2.63	2.10	3.38	2.81	2.25	5.03	4.19	3.35	3.24	2.70	2.16
24-12S	3.41	2.84	2.27	3.60	3.00	2.40	2.88	2.40	1.92	3.75	3.13	2.50	3.98	3.31	2.65	5.63	4.69	3.75	3.84	3.20	2.56
24-18P	1.80	1.50	1.20	2.00	1.66	1.33	1.28	1.06	.85	2.15	1.79	1.43	2.37	1.98	1.58	4.02	3.35	2.68	2.24	1.86	1.49
24-18S	2.91	2.43	1.94	3.11	2.59	2.07	2.39	1.99	1.59	3.26	2.71	2.17	3.48	2.90	2.32	5.13	4.28	3.42	3.35	2.79	2.23
24-19P	2.27	1.89	1.51	2.46	2.05	1.64	1.74	1.45	1.16	2.61	2.18	1.74	2.84	2.36	1.89	4.49	3.74	2.99	2.70	2.25	1.80
24-19S	2.40	2.00	1.60	2.60	2.16	1.73	1.88	1.56	1.25	2.75	2.29	1.83	2.97	2.48	1.98	4.62	3.85	3.08	2.84	2.36	1.89

"MS" CONNECTORS AMPHENOL

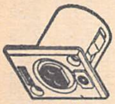
Shell Insert	MS/3100			MS/3101			MS/3102			MS/3106						MS/3108					
	A			A			A			A			B			A			B		
	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999
24-20P	2.24	1.86	1.49	2.43	2.03	1.62	1.71	1.43	1.14	2.58	2.15	1.72	2.81	2.34	1.87	4.46	3.71	2.97	2.67	2.23	1.71
24-20S	2.30	1.91	1.53	2.49	2.08	1.66	1.77	1.48	1.18	2.64	2.20	1.76	2.87	2.39	1.91	4.52	3.76	3.01	2.73	2.28	1.82
24-21S	2.52	2.10	1.68	2.72	2.26	1.81	2.00	1.66	1.33	2.87	2.39	1.91	3.09	2.58	2.06	4.74	3.95	3.16	2.96	2.46	1.97
24-22P	2.54	2.11	1.69	2.73	2.28	1.82	2.01	1.68	1.34	2.88	2.40	1.92	3.11	2.59	2.07	4.76	3.96	3.17	2.97	2.48	1.98
24-22S	3.21	2.68	2.14	3.41	2.84	2.27	2.69	2.24	1.79	3.56	2.96	2.37	3.78	3.15	2.52	5.43	4.53	3.62	3.65	3.04	2.43
24-23S	3.02	2.51	2.01	3.21	2.68	2.14	2.49	2.08	1.66	3.36	2.80	2.24	3.59	2.99	2.39	5.24	4.36	3.49	3.45	2.88	2.30
24-27P	2.03	1.69	1.35	2.22	1.85	1.48	1.50	1.25	1.00	2.37	1.98	1.58	2.60	2.16	1.73	4.25	3.54	2.83	2.46	2.05	1.64
24-27S	2.10	1.75	1.40	2.30	1.91	1.53	1.58	1.31	1.05	2.45	2.04	1.63	2.67	2.23	1.78	4.32	3.60	2.88	2.54	2.11	1.69
24-28P	2.42	2.01	1.61	2.61	2.18	1.74	1.89	1.58	1.26	2.76	2.30	1.84	2.99	2.49	1.99	4.64	3.86	3.09	2.85	2.38	1.90
24-28S	2.85	2.38	1.90	3.05	2.54	2.03	2.33	1.94	1.55	3.20	2.66	2.13	3.42	2.85	2.28	5.07	4.23	3.38	3.29	2.74	2.19
24-768P	2.70	2.25	1.80	2.90	2.41	1.93	2.18	1.81	1.45	3.05	2.54	2.03	3.27	2.73	2.18	4.92	4.10	3.28	3.14	2.61	2.09
24-768S	3.78	3.15	2.52	3.98	3.31	2.65	3.26	2.71	2.17	4.13	3.44	2.75	4.35	3.63	2.90	6.00	5.00	4.00	4.22	3.51	2.81
24-835P	2.12	1.76	1.41	2.31	1.93	1.54	1.59	1.33	1.06	2.46	2.05	1.64	2.69	2.24	1.79	4.34	3.61	2.89	2.55	2.13	1.70
24-835S	2.66	2.21	1.77	2.85	2.38	1.90	2.13	1.78	1.42	3.00	2.50	2.00	3.23	2.69	2.15	4.88	4.06	3.25	3.09	2.58	2.06
28-1P	3.08	2.56	2.05	3.44	2.86	2.29	2.39	1.99	1.59	3.59	2.99	2.39	3.59	2.99	2.39	5.39	4.49	3.59	3.53	2.94	2.35
28-2P	2.42	2.01	1.61	2.78	2.31	1.85	1.73	1.44	1.15	2.93	2.44	1.95	2.93	2.44	1.95	4.73	3.94	3.15	2.87	2.39	1.91
28-2S	2.67	2.23	1.78	3.03	2.53	2.02	1.98	1.65	1.32	3.18	2.65	2.12	3.18	2.65	2.12	4.98	4.15	3.32	3.12	2.60	2.08
28-3P	2.57	2.14	1.71	2.93	2.44	1.95	1.88	1.56	1.25	3.08	2.56	2.05	3.08	2.56	2.05	4.88	4.06	3.25	3.02	2.51	2.01
28-3S	3.03	2.53	2.02	3.39	2.83	2.26	2.34	1.95	1.56	3.54	2.95	2.36	3.54	2.95	2.36	5.34	4.45	3.56	3.48	2.90	2.32
28-5P	3.02	2.51	2.01	3.38	2.81	2.25	2.33	1.94	1.55	3.53	2.94	2.35	3.53	2.94	2.35	5.33	4.44	3.55	3.47	2.89	2.31
28-5S	3.62	3.01	2.41	3.98	3.31	2.65	2.93	2.44	1.95	4.13	3.44	2.75	4.13	3.44	2.75	5.93	4.94	3.95	4.07	3.39	2.71
28-6P	3.36	2.80	2.24	3.72	3.10	2.48	2.67	2.23	1.78	3.87	3.23	2.58	3.87	3.23	2.58	5.67	4.73	3.78	3.81	3.18	2.54
28-6S	4.22	3.51	2.81	4.58	3.81	3.05	3.53	2.94	2.35	4.73	3.94	3.15	4.73	3.94	3.15	6.53	5.44	4.35	4.67	3.89	3.11
28-7P	2.72	2.26	1.81	3.08	2.56	2.05	2.03	1.69	1.35	3.23	2.69	2.15	3.23	2.69	2.15	5.03	4.19	3.35	3.17	2.64	2.11
28-7S	3.24	2.70	2.16	3.60	3.00	2.40	2.55	2.13	1.70	3.75	3.13	2.50	3.75	3.13	2.50	5.55	4.63	3.70	3.69	3.08	2.46
28-8P	2.52	2.10	1.68	2.88	2.40	1.92	1.83	1.53	1.22	3.03	2.53	2.02	3.03	2.53	2.02	4.83	4.03	3.22	2.97	2.48	1.98
28-8S	2.84	2.36	1.89	3.20	2.66	2.13	2.15	1.79	1.43	3.35	2.79	2.23	3.35	2.79	2.23	5.15	4.29	3.43	3.29	2.74	2.19
28-9P	2.58	2.15	1.72	2.94	2.45	1.96	1.89	1.58	1.26	3.09	2.58	2.06	3.09	2.58	2.06	4.89	4.08	3.26	3.03	2.53	2.02
28-9S	2.90	2.41	1.93	3.26	2.71	2.17	2.21	1.84	1.47	3.41	2.84	2.27	3.41	2.84	2.27	5.21	4.34	3.47	3.35	2.79	2.23
28-10P	3.47	2.89	2.31	3.83	3.19	2.55	2.78	2.31	1.85	3.98	3.31	2.65	3.98	3.31	2.65	5.78	4.81	3.85	3.92	3.26	2.61
28-10S	4.44	3.70	2.96	4.80	4.00	3.20	3.75	3.13	2.50	4.95	4.13	3.30	4.95	4.13	3.30	6.75	5.63	4.50	4.89	4.08	3.26
28-11P	2.79	2.33	1.86	3.15	2.63	2.10	2.10	1.75	1.40	3.30	2.75	2.20	3.30	2.75	2.20	5.10	4.25	3.40	3.24	2.70	2.16
28-11S	3.30	2.75	2.20	3.66	3.05	2.44	2.61	2.18	1.74	3.81	3.18	2.54	3.81	3.18	2.54	5.61	4.68	3.74	3.75	3.13	2.50
28-12P	2.82	2.35	1.88	3.18	2.65	2.12	2.13	1.78	1.42	3.33	2.78	2.22	3.33	2.78	2.22	5.13	4.28	3.42	3.27	2.73	2.18
28-12S	3.36	2.80	2.24	3.72	3.10	2.48	2.67	2.23	1.78	3.87	3.23	2.58	3.87	3.23	2.58	5.67	4.73	3.78	3.81	3.18	2.54
28-13P	2.90	2.41	1.93	3.26	2.71	2.17	2.21	1.84	1.47	3.41	2.84	2.27	3.41	2.84	2.27	5.21	4.34	3.47	3.35	2.79	2.23
28-13S	3.44	2.86	2.29	3.80	3.16	2.53	2.75	2.29	1.83	3.95	3.29	2.63	3.95	3.29	2.63	5.75	4.79	3.83	3.89	3.24	2.59
28-14P	2.67	2.23	1.78	3.03	2.53	2.02	1.98	1.65	1.32	3.18	2.65	2.12	3.18	2.65	2.12	4.98	4.15	3.32	3.12	2.60	2.08
28-14S	2.94	2.45	1.96	3.30	2.75	2.20	2.25	1.88	1.50	3.45	2.88	2.30	3.45	2.88	2.30	5.25	4.38	3.50	3.39	2.83	2.26
28-15P	3.27	2.73	2.18	3.63	3.03	2.42	2.58	2.15	1.72	3.78	3.15	2.52	3.78	3.15	2.52	5.58	4.65	3.72	3.72	3.10	2.48
28-15S	3.77	3.14	2.51	4.13	3.44	2.75	3.08	2.56	2.05	4.28	3.56	2.85	4.28	3.56	2.85	6.08	5.06	4.05	4.22	3.51	2.81
28-16P	2.93	2.44	1.95	3.29	2.74	2.19	2.24	1.86	1.49	3.44	2.86	2.29	3.44	2.86	2.29	5.24	4.36	3.49	3.38	2.81	2.25
28-16S	3.17	2.64	2.11	3.53	2.94	2.35	2.48	2.06	1.65	3.68	3.06	2.45	3.68	3.06	2.45	5.48	4.56	3.65	3.62	3.01	2.41
28-17P	2.39	1.99	1.59	2.75	2.29	1.83	1.70	1.41	1.13	2.90	2.41	1.93	2.90	2.41	1.93	4.70	3.91	3.13	2.84	2.36	1.89
28-17S	2.91	2.43	1.94	3.27	2.73	2.18	2.22	1.85	1.48	3.42	2.85	2.28	3.42	2.85	2.28	5.22	4.35	3.48	3.36	2.80	2.24
28-18P	2.72	2.26	1.81	3.08	2.56	2.05	2.03	1.69	1.35	3.23	2.69	2.15	3.23	2.69	2.15	5.03	4.19	3.35	3.17	2.64	2.11
28-18S	2.94	2.45	1.96	3.30	2.75	2.20	2.25	1.88	1.50	3.45	2.88	2.30	3.45	2.88	2.30	5.25	4.38	3.50	3.39	2.83	2.26
28-19P	2.48	2.06	1.65	2.84	2.36	1.89	1.79	1.49	1.19	2.99	2.49	1.99	2.99	2.49	1.99	4.79	3.99	3.19	2.93	2.44	1.95
28-19S	2.96	2.46	1.97	3.32	2.76	2.21	2.27	1.89	1.51	3.47	2.89	2.31	3.47	2.89	2.31	5.27	4.39	3.51	3.41	2.84	2.27
28-20P	2.91	2.43	1.94	3.27	2.73	2.18	2.22	1.85	1.48	3.42	2.85	2.28	3.42	2.85	2.28	5.22	4.35	3.48	3.36	2.80	2.24
28-20S	3.20	2.66	2.13	3.56	2.96	2.37	2.51	2.09	1.67	3.71	3.09	2.47	3.71	3.09	2.47	5.51	4.59	3.67	3.65	3.04	2.43
28-21P	3.30	2.75	2.20	3.66	3.05	2.44	2.61	2.18	1.74	3.81	3.18	2.54	3.81	3.18	2.54	5.61	4.68	3.74	3.75	3.13	2.50
28-21S	3.89	3.24	2.59	4.25	3.54	2.83	3.20	2.66	2.13	4.40	3.66	2.93	4.40	3.66	2.93	6.20	5.16	4.13	4.34	3.61	2.89
28-22P	3.39	2.83	2.26	3.75	3.13	2.50	2.70	2.25	1.80	3.90	3.25	2.60	3.90	3.25	2.60	5.70	4.75	3.80	3.84	3.20	2.56
32-4S	3.44	2.86	2.29	3.59	2.99	2.39	2.46	2.05	1.64	4.07	3.39	2.71	4.02	3.35	2.68	6.44	5.36	4.29	4.22	3.51	2.81
32-5P	3.75	3.13	2.50	3.90	3.25	2.60	2.78	2.31	1.85	4.38	3.65	2.92	4.34	3.61	2.89	6.75	5.63	4.50	4.53	3.78	3.02
32-5S	4.28	3.56	2.85	4.43	3.69	2.95	3.30	2.75	2.20	4.91	4.09	3.27	4.86	4.05	3.24	7.28	6.06	4.85	5.06	4.21	3.37
32-6P	5.03	4.19	3.35	5.18	4.31	3.45	4.05	3.38	2.70	5.66	4.71	3.77	5.61	4.68	3.74	8.03	6.69	5.35	5.81	4.84	3.87
32-6S	6.53	5.44	4.35	6.68	5.56	4.45	5.55	4.63	3.70	7.16	5.96	4.77	7.11	5.93	4.74	9.53	7.94	6.35	7.31	6.09	4.87
32-7P	4.25	3.54	2.83	4.40	3.66	2.93	3.27	2.73	2.18	4.88	4.06	3.25	4.83	4.03	3.22	7.25	6.04	4.83	5.03	4.19	3.35
32-7S	4.88	4.06	3.25	5.03	4.19	3.35	3.90	3.25	2.60	5.51	4.59	3.67	5.46	4.55	3.64	7.88	6.56	5.25	5.66	4.71	3.77
32-8P	4.11	3.43	2.74	4.26	3.55	2.84	3.14	2.61	2.09	4.74	3.95	3.16	4.70	3.91	3.13	7.11	5.93	4.74	4.89	4.08	3.26
32-8S	4.83	4.03	3.22	4.98	4.15	3.32	3.86	3.21	2.57	5.46	4.55	3.64	5.42	4.51	3.61	7.83	6.53	5.22	5.61	4.68	3.74
32-9P	4.20	3.50	2.80	4.35	3.63	2.90	3.23	2.69	2.15	4.83	4.03	3.22	4.79	3.99	3.19	7.20	6.00	4.80	4.98	4.15	3.32
32-9S	4.65	3.88	3.10	4.80	4.00	3.20	3.68	3.06	2.45	5.28	4.40	3.52	5.24	4.36	3.49	7.65	6.38	5.10	5.43	4.53	3.62
32-12P	4.04	3.36	2.69	4.19	3.49	2.79	3.06	2.55	2.04	4.67	3.89	3.11	4.62	3.85	3.08	7.04	5.86	4.69	4.82	4.01	3.21
32-12S	5.15	4.29	3.43	5.30	4.41	3.53	4.17	3.48	2.78	5.78	4.81	3.85	5.73	4.78	3.82	8.15	6.79	5.43	5.93	4.94	3.95
32-13P	3.42	2.85	2.28	3.57	2.98	2.38	2.45	2.04	1.63	4.05	3.38	2.70	4.01	3.34	2.67	6.42	5.35	4.28	4.20	3.50	2.80
32-13S	3.86	3.21	2.57	4.01	3.34	2.67	2.88	2.40	1.92	4.49	3.74	2.99	4.44	3.70	2.96	6.86	5.71	4.57	4.64	3.86	3.09
32-15P	4.95	4.13	3.30	5.10	4.25	3.40	3.98	3.31	2.65	5.58	4.65	3.72	5.54	4.61	3.69	7.95	6.63	5.30	5.73	4.78	3.82
32-15S	5.25	4.38	3.50	5.40	4.50	3.60	4.28	3.56	2.85	5.88	4.90	3.92	5.84	4.86	3.89	8.25	6.88	5.50	6.03	5.03	4.02
32-17P	4.80	4.00	3.20	4.95	4.13	3.30	3.83	3.19	2.55	5.43	4.53	3.62	5.39	4.49	3.59	7.80	6.50	5.20	5.58	4.65	3.72
32-17S	5.25	4.38	3.50	5.40	4.50	3.60	4.28	3.56	2.85	5.88	4.90	3.92	5.84	4.86	3.89	8.25	6.88	5.50	6.03	5.03	4.02
32-101P	8.00	6.66	5.33	8.15	6.79	5.43	7.02	5.85	4.68	8.63	7.19	5.75	8.58	7.15	5.72	11.00	9.16	7.33	8.78	7.31	5.85
32-102P	5.88	4.90	3.92	6.03	5.03	4.02	4.91	4.09	3.27	6.51	5.43	4.34	6.47	5.39	4.31	8.88	7.40	5.92	6.66	5.55	4.44
32-102S	6.84	5.70	4.56	6.99	5.83	4.66	5.87	4.89	3.91	7.47	6.23	4.98	7.43	6.19	4.95	9.84	8.20	6.56	7.62	6.35	5.08
32-414P	5.22	4.35	3.48	5.37	4.48	3.58	4.25	3.54	2.83	5.85	4.88	3.90	5.81	4.84	3.87	8.22	6.85	5.48	6.00	5.00	4.00
32-414S	6.95	5.79	4.63	7.10	5.91	4.73	5.97	4.98	3.98	7.58	6.31	5.05	7.53	6.28	5.02	9.95	8.29	6.63	7.73	6.44	5.15
36-1S	5.96	4.96	3.97	6.23	5.19	4.15	4.68	3.90	3.12	8.07	6.73	5.38	6.33	5.28	4.22	9.11	7.59	6.07	6.63	5.53	4.42
36-2S	6.45	5.38	4.30	6.72	5.60	4.48	5.18	4.31	3.45	8.57	7.14	5.71	6.83	5.69	4.55	9.60	8.00	6.40	7.13	5.94	4.75
36-3P	5.45	4.54	3.63	5.72	4.76	3.81	4.17	3.48	2.78	7.56	6.30	5.04	5.82	4.85	3.88	8.60	7.16	5.73	6.12	5.10	4.08
36-3S	7.05	5.88	4.70	7.32	6.10	4.88	5.78	4.81	3.85	9.17	7.64	6.11	7.43	6.19	4.95	10.20	8.50	6.80	7.73	6.44	5.15
36-4P	5.40	4.50	3.60	5.67	4.73	3.78	4.13	3.44	2.75	7.52	6.26	5.01	5.78	4.81	3.85	8.55	7.13	5.70	6.08	5.06	4.05

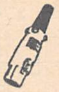
AMPHENOL "MS" CONNECTORS (Cont.)

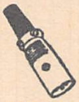
Shell Insert	MS/3100 A			MS/3101 A			MS/3102 A			MS/3106 A			MS/3106 B			MS/3108 A			MS/3108 B		
	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999	1-49	50-99	100-999
36-4S	6.45	5.38	4.30	6.72	5.60	4.48	5.18	4.31	3.45	8.57	7.14	5.71	6.83	5.69	4.55	9.60	8.00	6.40	7.13	5.94	4.75
36-6P	6.68	5.56	4.45	6.95	5.79	4.63	5.40	4.50	3.60	8.79	7.33	5.86	7.05	5.88	4.70	9.83	8.19	6.55	7.35	6.13	4.90
36-7P	5.40	4.50	3.60	5.67	4.73	3.78	4.13	3.44	2.75	7.52	6.26	5.01	5.78	4.81	3.85	8.55	7.13	5.70	6.08	5.06	4.05
36-7S	5.99	4.99	3.99	6.26	5.21	4.17	4.71	3.93	3.14	8.10	6.75	5.40	6.36	5.30	4.24	9.14	7.61	6.09	6.66	5.55	4.44
36-8P	5.27	4.39	3.51	5.54	4.61	3.69	3.99	3.33	2.66	7.38	6.15	4.92	5.64	4.70	3.76	8.42	7.01	5.61	5.94	4.95	3.96
36-8S	5.64	4.70	3.76	5.91	4.93	3.94	4.37	3.64	2.91	7.76	6.46	5.17	6.02	5.01	4.01	8.79	7.33	5.86	6.32	5.26	4.21
36-9P	6.05	5.04	4.03	6.32	5.26	4.21	4.77	3.98	3.18	8.16	6.80	5.44	6.42	5.35	4.28	9.20	7.66	6.13	6.72	5.60	4.48
36-9S	7.40	6.16	4.93	7.67	6.39	5.11	6.12	5.10	4.08	9.51	7.93	6.34	7.77	6.48	5.18	10.55	8.79	7.03	8.07	6.73	5.38
36-10P	4.95	4.13	3.30	5.22	4.35	3.48	3.68	3.06	2.45	7.07	5.89	4.71	5.33	4.44	3.55	8.10	6.75	5.40	5.63	4.69	3.75
36-10S	5.64	4.70	3.76	5.91	4.93	3.94	4.37	3.64	2.91	7.76	6.46	5.17	6.02	5.01	4.01	8.79	7.33	5.86	6.32	5.26	4.21
36-14P	6.71	5.59	4.47	6.98	5.81	4.65	5.43	4.53	3.62	8.82	7.35	5.88	7.08	5.90	4.72	9.86	8.21	6.57	7.38	6.15	4.92
36-14S	7.22	6.01	4.81	7.49	6.24	4.99	5.94	4.95	3.96	9.33	7.78	6.22	7.59	6.33	5.06	10.37	8.64	6.91	7.89	6.58	5.26
36-15P	4.58	3.81	3.05	4.85	4.04	3.23	3.30	2.75	2.20	6.69	5.58	4.46	4.95	4.13	3.30	7.73	6.44	5.15	5.25	4.38	3.50
36-15S	5.39	4.49	3.59	5.66	4.71	3.77	4.11	3.43	2.74	7.50	6.25	5.00	5.76	4.80	3.84	8.54	7.11	5.69	6.06	5.05	4.04
36-403P	5.73	4.78	3.82	6.00	5.00	4.00	4.46	3.71	2.97	7.85	6.54	5.23	6.11	5.09	4.07	8.88	7.40	5.92	6.41	5.34	4.27
36-403S	7.77	6.48	5.18	8.04	6.70	5.36	6.50	5.41	4.33	9.89	8.24	6.59	8.15	6.79	5.43	10.92	9.10	7.28	8.45	7.04	5.63
36-404P	6.63	5.53	4.42	6.90	5.75	4.60	5.36	4.46	3.57	8.75	7.29	5.83	7.01	5.84	4.67	9.78	8.15	6.52	7.31	6.09	4.87
36-404S	7.95	6.63	5.30	8.22	6.85	5.48	6.68	5.56	4.45	10.07	8.39	6.71	8.33	6.94	5.55	11.10	9.25	7.40	8.63	7.19	5.75
36-405P	7.92	6.60	5.28	8.19	6.83	5.46	6.65	5.54	4.43	10.04	8.36	6.69	8.30	6.91	5.53	11.07	9.23	7.38	8.60	7.16	5.73
36-405S	10.01	8.34	6.67	10.28	8.56	6.85	8.73	7.28	5.82	12.12	10.10	8.08	10.36	8.65	6.92	13.16	10.96	8.77	10.68	8.90	7.12
36-406P	7.02	5.85	4.68	7.29	6.08	4.86	5.75	4.79	3.83	9.14	7.61	6.09	7.40	6.16	4.93	10.17	8.48	6.78	7.70	6.41	5.13
40-1P	5.81	4.84	3.87	5.81	4.84	3.87	3.78	3.15	2.52	7.52	6.26	5.01	6.59	5.49	4.39	......	......	......	6.84	5.70	4.56
40-1S	6.53	5.44	4.35	6.53	5.44	4.35	4.50	3.75	3.00	8.24	6.86	5.49	7.31	6.09	4.87	......	......	......	7.56	6.30	5.04
40-5P	9.03	7.53	6.02	9.03	7.53	6.02	7.01	5.84	4.67	10.74	8.95	7.16	9.81	8.18	6.54	......	......	......	10.07	8.39	6.71
40-5S	11.28	9.40	7.52	11.28	9.40	7.52	9.26	7.71	6.17	12.99	10.83	8.66	12.06	10.05	8.04	......	......	......	12.32	10.26	8.21
40-9P	9.86	8.21	6.57	9.86	8.21	6.57	7.83	6.53	5.22	11.57	9.64	7.71	10.64	8.86	7.09	......	......	......	10.89	9.08	7.26
40-9S	11.55	9.63	7.70	11.55	9.63	7.70	9.53	7.94	6.35	13.26	11.05	8.84	12.33	10.28	8.22	......	......	......	12.59	10.49	8.39
40-10P	10.07	8.39	6.71	10.07	8.39	6.71	8.04	6.70	5.36	11.78	9.81	7.85	10.85	9.04	7.23	......	......	......	11.10	9.25	7.40
40-10S	11.63	9.69	7.75	11.63	9.69	7.75	9.60	8.00	6.40	13.34	11.11	8.89	12.41	10.34	8.27	......	......	......	12.66	10.55	8.44
44-1P	7.73	6.44	5.15	7.73	6.44	5.15	5.66	4.71	3.77	10.26	8.55	6.84	9.38	7.81	6.25	......	......	......	9.42	7.85	6.28
44-1S	7.97	6.64	5.31	7.97	6.64	5.31	5.90	4.91	3.93	10.50	8.75	7.00	9.62	8.01	6.41	......	......	......	9.66	8.05	6.44

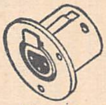
CANNON AUDIO PLUGS

CANNON XLR SERIES (Mates with the former Cannon XL Line)


XLR-31


XLR-11C


XLR-12C

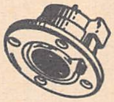

XLR-13

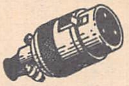
Protects against mechanical interference. Integral cable clamp, neoprene cable relief, and time tested latch-lock. 15 amp contacts. Avg. shipping wt., 3 oz.

STEEL & SATIN NICKEL FINISH SHELLS

Stk. No.	Type	Description	Pins	1-9	10-49	50-99
39F475	XLR-3-11SC	Cable Conn. F	3	3.49	3.20	2.91
39F476	XLR-3-12SC	Cable Conn. M	3	2.68	2.55	2.32
39F477	XLR-4-11SC	Cable Conn. F	4	3.55	3.26	2.96
39F478	XLR-4-12SC	Cable Conn. M	4	2.87	2.63	2.39
39F481	XLR-4-11C	Cable Conn. F	4	1.64	1.50	1.37
39F483	XLR-4-12C	Cable Conn. M	4	1.20	1.10	1.00
39F465	XLR-4-13	Panel Mt.-Flg. F	4	1.93	1.77	1.61
39F466	XLR-4-13N	Panel Mt.-Nut F	4	2.20	2.02	1.84
39F467	XLR-4-14	Panel Mt.-Flg. M	4	.87	.80	.73
39F468	XLR-4-14N	Panel Mt. Nut M	4	1.87	1.71	1.56
39F469	XLR-4-15	90° Cable Conn. F	4	3.41	3.13	2.85
39F485	XLR-4-31	Wall Mt. F	4	1.99	1.82	1.66
39F487	XLR-4-32	Wall Mt. M	4	1.22	1.12	1.02
39F480	XLR-3-11C	Cable Conn.F	3	1.29	1.18	1.08
39F482	XLR-3-12C	Cable Conn. M	3	1.13	1.03	.94
39F455	XLR-3-13	Panel Mt.-Flg. F	3	1.85	1.70	1.55
39F456	XLR-3-13N	Panel Mt. F	3	2.14	1.96	1.78
39F457	XLR-3-14	Panel Mt.-Flg. M	3	.83	.76	.70
39F458	XLR-3-14N	Panel Mt. M	3	1.73	1.59	1.45
39F459	XLR-3-15	90° Cable Conn. F	3	3.38	3.10	2.82
39F484	XLR-3-31	Wall Mt. F	3	1.93	1.77	1.61
39F486	XLR-3-32	Wall Mt. M	3	1.10	1.01	.92
39F460	XLR-3-35	Single Box Mt. F	3	4.03	3.70	3.36
39F461	XLR-3-35-2G	Double Box Mt., F	3	7.42	6.80	6.18
39F474	XLR-4-50T	Adapter-thrd. bar.	4	1.88	1.73	1.57

CANNON P SERIES AUDIO PLUGS


P2-13

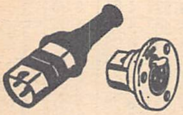

P-CG-11S

Used in sound and allied applications. All 90° plugs have split shell. Splash proof. Insulated by black phenolic. Two to 6 contact inserts accommodate No. 10 wire. 8 contact takes No. 14 wire. Panel mounting, except *Cable connector. Avg. wt., 4 oz.

Stk. No.	Pins	Male	1-9	10-49	50-99	100-249
39F531	3	P3-CG-12S*	3.40	3.12	2.84	2.55
39F532	4	P4-CG-12S*	3.50	3.21	2.92	2.62
39F533	5	P5-CG-12S*	3.56	3.27	2.97	2.67
39F534	6	P6-CG-12S*	3.73	3.42	3.11	2.80
39F535	8	P8-CG-12S*	3.96	3.63	3.30	2.97
39F542	2	P2-14	2.04	1.87	1.70	1.53
39F543	3	P3-14	2.19	2.01	1.83	1.64
39F544	4	P4-14	2.35	2.15	1.96	1.76
39F545	5	P5-14	2.50	2.29	2.08	1.87
39F546	6	P6-14	2.65	2.43	2.21	1.98
39F547	8	P8-14	3.99	3.32	2.66	2.44

Stk. No.	Pins	Female	1-9	10-49	50-99	100-249
39F536	2	P2-CG-11S*	4.06	3.72	3.39	3.05
39F537	3	P3-CG-11S*	4.16	3.81	3.47	3.12
39F538	4	P4-CG-11S*	4.39	4.03	3.66	3.29
39F539	5	P5-CG-11S*	4.62	4.24	3.85	3.47
39F540	6	P6-CG-11S*	4.75	4.36	3.96	3.56
39F541	8	P8-CG-11S*	5.08	4.66	4.24	3.81
39F548	2	P2-13	3.43	3.15	2.86	2.57
39F549	3	P3-13	3.68	3.38	3.07	2.76
39F550	4	P4-13	3.94	3.61	3.28	2.95
39F551	5	P5-13	4.18	3.83	3.49	3.14
39F552	6	P6-13	4.43	4.06	3.70	3.33
39F553	8	P8-13	4.69	4.30	3.91	3.51
39F556	3	P3-35	5.74	5.26	4.78	4.30

CANNON MICROPHONE PLUGS



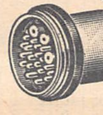
UA RETMA STANDARD PLUGS

RETMA standard 3 - contact microphone plugs. Latch-locking, gold-plated contacts, rubber relief collar and rubber bushings on the plugs, and flat-top polarization. Rated 15 amps. Provide ½" cable entry. Steel plug shells. Socket insert except *Pin insert.

Stk. No.	Type	Description	1-24	25-249
39F570	UA-3-11	Straight cord plug	7.04	4.70
39F571	UA-3-12	*Straight cord plug	4.55	3.04
39F572	UA-3-13	Round wall mount	4.73	3.16
39F573	UA-3-14	*Round wall mount	2.34	1.56
39F574	UA-3-31	Rect. wall mount	4.91	3.27
39F575	UA-3-32	*Rect. wall mount	2.35	1.57

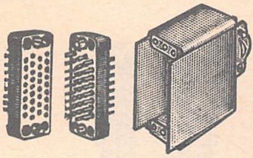
STANDARD TELEVISION CAMERA PLUGS FOR REPLACEMENT

Replacement units for connecting TV cameras. Shells are made of die-cast aluminum with cadmium-plated finish. All are 24-contact types except (*) dust caps. Wt., 4 oz.

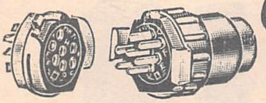


Stk. No.	Type	1-9	10-49	50-99
39F402	LKT-R24C-24⅞	31.97	26.64	21.31
39F403	LKT-R24C-22⅞	25.45	21.21	16.97
39F406	LK-R24C-21⅞T	21.44	17.87	14.29
39F408	LKT-R24C-21⅞	26.13	21.77	17.42
39F409	LKT-59A-2*	3.10	2.58	2.06

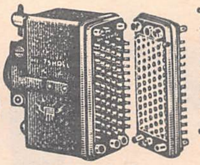
U.S. COMPONENTS–CONNECTORS



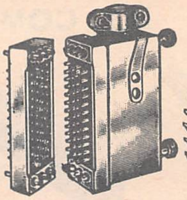
MI Series



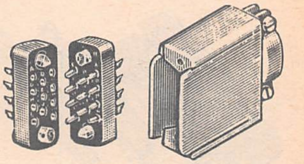
MH Series



MI-SL Series



MI-BSL Series



SMI Series

Connectors for all military and commercial high reliability electrical and electronic application. Meet the following requirements: Minimum space and weight factor, fool proof ease of engagement and disengagement, vibrashock resistance, protection of contacts, positive locking. High electrical performance is assured by use of asbestos-filled melamine, glass-filled alkyd, asbestos-filled diallyl phthalate, or glass fibre-filled diallyl phthalate solid one piece moldings. These connectors meet or exceed all applicable military and federal specifications.

MI SERIES—MINIATURE

Maximum Wire Size: #20 AWG. 2600 V.A.C. RMS. 7.5 amps.

Stk. No.	Type	Cont.	HxWxD	1-10	11-50	Stk. No.	Type	Cont.	HxWxD	1-10	11-50
44F000	MI-7M-DM30	7	55/64x3/8x25/32"	1.19	1.08	44F008	MI-7F-DM30	7	55/64x3/8x25/32"	1.57	1.41
44F001	MI-14M-DM30	14	1 1/4x7/16x25/32"	1.42	1.28	44F009	MI-14F-DM30	14	1 1/4x7/16x25/32"	2.34	2.10
44F002	MI-18M-DM30	18	1 5/16x9/16x25/32"	1.82	1.64	44F010	MI-18F-DM30	18	1 5/16x9/16x25/32"	2.76	2.48
44F003	MI-20M-DM30	20	1 7/16x7/16x25/32"	1.85	1.66	44F011	MI-20F-DM30	20	1 7/16x7/16x25/32"	2.91	2.61
44F004	MI-34M-DM30	34	2x3/4x25/32"	2.87	2.58	44F012	MI-34F-DM30	34	2x3/4x25/32"	4.09	3.66
44F005	MI-50M-DM30	50	2 23/32x7/8x55/64"	3.96	3.55	44F013	MI-50F-DM30	50	2 23/32x7/8x55/64"	6.51	5.82
44F006	MI-75M-DM30	75	2 23/32x1 15/16x55/64"	5.63	5.08	44F014	MI-75F-DM30	75	2 23/32x1 15/64x55/64"	8.93	7.99
44F007	MI-8-4MRC-DM30	12	1 9/16x7/16x55/64"	2.16	1.94	44F015	MI-8-4FRC-DM30	12	1 9/16x7/16x25/32"	2.86	2.56

SERIES MI-H MINIATURE HOODS

Maximum Wire Size: #20 AWG. 2600 V.A.C. RMS. 7.5 amps.

44F027	MI-7HR	7	1 25/32x1 7/32x7/16"	.74	.66	44F031	MI-34HR	34	2 1/32x2x1 3/16"	.87	.78
44F028	MI-14HR	14	1 1/2x1 1/4x1/2"	.83	.74	44F032	MI-34HS	34	2 1/8x2x1/2"	.87	.78
44F029	MI-18HR	18	1 1/2x1 5/16x5/8"	.83	.74	44F033	MI-50HR	50	2 19/32x1 55/64x27/32"	1.05	.94
44F030	MI-20HR	20	1 1/2x1 9/16x1/2"	.83	.74						

MH SERIES—MINIATURE HEX

Maximum Wire Size: #20 AWG. 2100 V.A.C. RMS. 7.5 amps.

44F016	MH-4MLS	4	1/2x1 1/16x5/8"	.64	.58	44F020	MH-4FLRN	4	1/2x1 1/16x5/8"	.93	.84
44F017	MH-5MLS	5	25/32x25/32x3/4"	.65	.59	44F021	MH-5FLRN	5	47/64x47/64x1/2"	1.00	.90
44F018	MH-7MLS	7	25/32x25/32x3/4"	.76	.69	44F022	MH-7FLRN	7	47/64x47/64x1/2"	1.09	.99
44F019	MH-9MLS	9	25/32x25/32x3/4"	.88	.79	44F023	MH-9FLRN	9	47/64x47/64x1/2"	1.21	1.09

MH-HC HOODS

Maximum Wire Size: #20 AWG. 2100 V.A.C. RMS. 7.5 amps.

44F024	MH-10C	4	9/16x7/8x5/32"	.42	.38	44F026	MH-19C	5,7,9	21/32x27/32x19/64"	.42	.38
44F025	MH-9C	5,7,9	21/32x27/32x19/64"	.42	.38						

MI-SL SERIES—MINIATURE HOODED SCREW LOCK

Maximum Wire Size: #20 AWG. 2600 V.A.C. RMS. 7.5 amps.

44F034	MI-7M2HRSL-DM30	7	1 7/32x45/64x2 19/64"	3.95	3.54	44F041	MI-7F2SL-DM30	7	1 7/32x3/8x53/64"	2.40	2.15
44F035	MI-14M2HRSL-DM30	14	1 1/4x49/64x2 19/64"	4.36	3.90	44F042	MI-14F2SL-DM30	14	1 1/4x7/16x53/64"	3.29	2.95
44F036	MI-18M2HRSL-DM30	18	1 5/16x57/64x2 19/64"	4.76	4.26	44F043	MI-18F2SL-DM30	18	1 5/16x9/16x53/64"	3.84	3.44
44F037	MI-20M2HRSL-DM30	20	1 9/16x49/64x2 19/64"	4.83	4.32	44F044	MI-20F2SL-DM30	20	1 9/16x7/16x53/64"	4.13	3.70
44F038	MI-34M2HRSL-DM30	34	2x1 3/32x2 33/64"	6.06	5.43	44F045	MI-34F2SL-DM30	34	2x3/4x53/64"	5.92	5.30
44F039	MI-50M2HRSL-DM30	50	2 23/32x1 3/32x2 33/64"	7.72	6.90	44F046	MI-50F2SL-DM30	50	2 23/32x7/8x53/64"	8.49	7.59
44F040	MI-75M2HRSL-DM30	75	2 23/32x1 29/64x2 33/64"	10.08	9.01	44F047	MI-75F2SL-DM30	75	2 23/32x1x1 15/64"	9.26	8.28

SMI SERIES—SUBMINIATURE

Maximum Wire Size: #20 AWG. 1950 V.A.C. RMS. 7.5 amps.

44F067	SMI-5M-DM30	5	25/32x1 5/64x17/32"	1.75	1.58	44F077	SMI-5F-DM30	5	25/32x1 5/64x17/32"	2.10	1.89
44F068	SMI-7M-DM30	7	7/8x1 5/64x17/32"	1.93	1.74	44F078	SMI-7F-DM30	7	7/8x1 5/64x17/32"	2.28	2.05
44F069	SMI-11M-DM30	11	7/8x1 1/32x17/32"	2.05	1.84	44F079	SMI-11F-DM30	11	7/8x1 1/32x17/32"	2.49	2.24
44F070	SMI-14M-DM30	14	1x1 1/32x17/32"	2.24	2.01	44F080	SMI-14F-DM30	14	1x1 1/32x17/32"	2.96	2.65
44F071	SMI-20M-DM30	20	1 1/4x1 1/32x17/32"	2.33	2.09	44F081	SMI-20F-DM30	20	1 1/4x1 1/32x17/32"	3.67	3.29
44F072	SMI-26M-DM30	26	1 1/2x1 1/32x17/32"	2.56	2.30	44F082	SMI-26F-DM30	26	1 1/2x1 1/32x17/32"	4.27	3.83
44F073	SMI-26MX-DM30	26	1 1/2x1 1/32x17/32"	2.56	2.30	44F083	SMI-26FX-DM30	26	1 1/2x1 1/32x17/32"	4.27	3.83
44F074	SMI-34M-DM30	34	1 9/16x1/2x17/32"	3.18	2.85	44F084	SMI-34F-DM30	34	1 9/16x1/2x17/32"	4.66	4.18
44F075	SMI-42M-DM30	42	1 13/16x1/2x17/32"	4.05	3.63	44F085	SMI-42F-DM30	42	1 13/16x1/2x17/32"	4.79	4.29
44F076	SMI-50M-DM30	50	2 1/16x1/2x17/32"	4.51	4.04	44F086	SMI-50F-DM30	50	2 1/16x1/2x17/32"	6.61	5.91

SMI SERIES—HOODS

Maximum Wire Size: #20 AWG. 2600 V.A.C. RMS. 7.5 amps.

44F087	SMI-7HR	7	1 5/16x1 9/64x1 9/32"	1.54	1.38	44F091	SMI-26HR	26	1 9/16x1 3/32x1 19/32"	.94	.84
44F088	SMI-11HR	11	1 5/16x1 3/32x1 9/32"	1.68	1.50	44F092	SMI-34HR	34	1 5/8x9/16x1 19/32"	.94	.84
44F089	SMI-14HR	14	1 1/16x1 3/32x1 9/32"	1.68	1.50	44F093	SMI-42HR	42	1 7/8x9/16x1 19/32"	1.68	1.50
44F090	SMI-20HR	20	1 5/16x1 3/32x1 9/32"	.94	.84	44F094	SMI-50HR	50	2 1/8x9/16x1 19/32"	.98	.88

SMI-SL SERIES—SUBMINIATURE SCREW LOCK

Maximum Wire Size: #20 AWG. 1950 V.A.C. RMS. 7.5 amps.

Stk. No.	Type	Cont.	HxWxD	1-10	11-50	Stk. No.	Type	Cont.	HxWxD	1-10	11-50
44F095	SMI-7M2HRSL-DM30	7	1 5/16x1 9/64x1 13/16"	4.97	4.45	44F103	SMI-7F2SL-DM30	7	7/8x1 5/64x17/32"	2.84	2.55
44F096	SMI-11M2HRSL-DM30	11	1 5/16x1 3/32x1 13/16"	5.08	4.55	44F104	SMI-11F2SL-DM30	11	7/8x1 1/32x17/32"	3.08	2.76
44F097	SMI-14M2HRSL-DM30	14	1 1/16x1 3/32x1 13/16"	5.28	4.73	44F105	SMI-14F2SL-DM30	14	1x1 1/32x17/32"	3.56	3.19
44F098	SMI-20M2HRSL-DM30	20	1 5/16x1 3/32x2 1/16"	5.35	4.79	44F106	SMI-20F2SL-DM30	20	1 1/4x1 1/32x17/32"	4.29	3.84
44F099	SMI-26M2HRSL-DM30	26	1 9/16x1 3/32x2 1/16"	5.59	5.00	44F107	SMI-26F2SL-DM30	26	1 1/2x1 1/32x17/32"	4.96	4.44
44F100	SMI-34M2HRSL-DM30	34	1 5/8x9/16x2 1/16"	6.19	5.54	44F108	SMI-34F2SL-DM30	34	1 9/16x1/2x17/32"	5.35	4.79
44F101	SMI-42M2HRSL-DM30	42	1 7/8x9/16x2 1/16"	7.72	6.90	44F109	SMI-42F2SL-DM30	42	1 13/16x1/2x17/32"	6.34	5.68
44F102	SMI-50M2HRSL-DM30	50	2 1/8x9/16x2 1/16"	9.23	8.25	44F110	SMI-50F2SL-DM30	50	2 1/16x1/2x17/32"	7.60	6.80

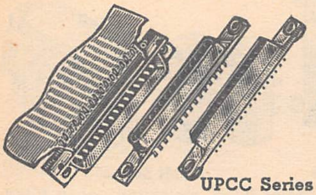
SMI-MK SERIES—SUBMINIATURE

Maximum Wire Size: #20 AWG. 1950 V.A.C. RMS. 7.5 amps.

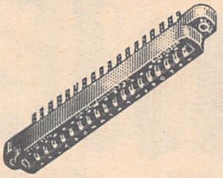
44F111	SMI-7M2K-DM30	7	7/8x1 5/64x27/32"	2.75	2.46	44F115	SMI-26M2K-DM30	26	1 1/2x1 1/32x27/32"	3.39	3.04
44F112	SMI-11M2K-DM30	11	7/8x1 1/32x27/32"	2.84	2.55	44F116	SMI-34M2K-DM30	34	1 9/16x1/2x27/32"	4.02	3.60
44F113	SMI-14M2K-DM30	14	1x1 1/32x27/32"	3.07	2.75	44F117	SMI-42M2K-DM30	42	1 13/16x1/2x27/32"	4.78	4.28
44F114	SMI-20M2K-DM30	20	1 1/4x1 1/32x27/32"	3.14	2.81	44F118	SMI-50M2K-DM30	50	2 1/16x1/2x27/32"	5.70	5.10

"M" in Type No. designates Male; "F" designates Female; "H" designates Hood.

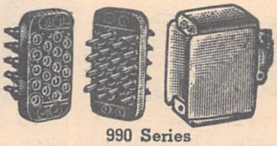
U.S. COMPONENTS CONNECTORS



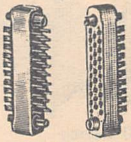
UPCC Series



UPCR Series



990 Series



UMI Series

UPCC SERIES—RIGHT ANGLE

Maximum Wire Size: #20 AWG. 2500 V.A.C. RMS. 7.5 amps.

Stk. No.	Type	Cont.	H x W x D	1-10	11-50
44F119	UPCC-M7A	7	2 3/32x.468x3/4"	2.00	1.79
44F120	UPCC-M11A	11	2 23/32x.468x3/4"	2.38	2.13
44F121	UPCC-M15A	15	3 11/32x.468x3/4"	2.66	2.38
44F122	UPCC-M19A	19	3 23/32x.468x3/4"	2.94	2.63
44F123	UPCC-M23A	23	4 19/32x.468x3/4"	3.29	2.94

Stk. No.	Type	Cont.	H x W x D	1-10	11-50
44F124	UPCC-F7	7	2 19/32x.438x43/64"	2.62	2.34
44F125	UPCC-F11	11	3 7/32x.438x43/64"	2.83	2.52
44F126	UPCC-F15	15	3 27/32x.438x43/64"	3.08	2.75
44F127	UPCC-F19	19	4 15/32x.438x43/64"	3.50	3.13
44F128	UPCC-F23	23	5 3/32x.438x43/64"	3.77	3.36

UPCR SERIES—SINGLE ROW PRINTED CARD

Card thickness 1/16". 2500 V.A.C. RMS. 5 amps.

44F129	UPCR-6-A	6	1 25/32x1 1/32x23/32"	1.09	.98
44F130	UPCR-10-A	10	2 13/32x1 1/32x23/32"	1.29	1.15
44F131	UPCR-15-A	15	3 3/16x1 1/32x23/32"	1.55	1.39
44F132	UPCR-18-A	18	3 21/32x1 1/32x23/32"	1.76	1.58
44F133	UPCR-22-A	22	4 9/32x1 1/32x23/32"	2.02	1.80

UPCR-D DOUBLE ROW PRINTED CARD

Card thickness 1/16". 2500 V.A.C. RMS. 5 amps.

44F134	UPCR-D6-DM30	6	1 25/32x1 1/32x23/32"	1.37	1.24
44F135	UPCR-D10-DM30	10	2 13/32x1 1/32x23/32"	1.53	1.38
44F136	UPCR-D15-DM30	15	3 3/16x1 1/32x23/32"	2.00	1.80
44F137	UPCR-D18-DM30	18	3 21/32x1 1/32x23/32"	2.28	2.05
44F138	UPCR-D22-DM30	22	4 9/32x1 1/32x23/32"	2.69	2.41

UMI SERIES ULTRA MINIATURE

Maximum wire size #22AWG 1000VAC RMS—3 Amp

44F205	UMI-5M	5	1 1/16x3/16x17/32	.80	.71
44F206	UMI-7M	7	25/32x3/16x17/32	.92	.83
44F207	UMI-9M	9	7/8x3/16x17/32	1.04	.93
44F208	UMI-11M	11	25/32x17/64x17/32	1.08	1.05
44F209	UMI-14M	14	7/8x17/64x17/32	1.33	1.19
44F210	UMI-20M	20	1 1/16x17/64x17/32	1.71	1.53
44F211	UMI-26M	26	1 1/4x17/64x17/32	2.07	1.85
44F212	UMI-29M	29	1 11/32x17/64x17/32	2.25	2.01
44F213	UMI-34M	34	1 1/4x3/8x17/32	2.59	2.31
44F214	UMI-44M	44	1 1/2x3/8x17/32	3.18	2.84
44F215	UMI-50M	50	1 5/8x3/8x17/32	3.95	3.53

44F216	UMI-5F	5	11/64x3/16x17/32	.99	.89
44F217	UMI-7F	7	25/32x3/16x17/32	1.19	1.06
44F218	UMI-9F	9	7/8x3/16x17/32	1.39	1.29
44F219	UMI-11F	11	25/32x17/64x17/32	1.58	1.41
44F220	UMI-14F	14	7/8x17/64x17/32	1.87	1.68
44F221	UMI-20F	20	1 1/16x17/64x17/32	2.46	2.20
44F222	UMI-26F	26	1 1/4x17/64x17/32	3.07	2.74
44F223	UMI-29F	29	1 11/32x17/64x17/32	3.36	3.00
44F224	UMI-34F	34	1 1/4x3/8x17/32	3.85	3.38
44F225	UMI-44F	44	1 1/2x3/8x17/32	4.84	4.33
44F226	UMI-50F	50	1 5/8x3/8x17/32	5.82	5.20

UMI-KSL SERIES ULTRA MINIATURE FEMALE KNOB TYPE SCREWLOCK

Maximum wire size #22AWG 1000VAC RMS—3 Amp

44F227	UMI-5MISL	5	1 1/16x3/16x17/32	1.22	1.09
44F228	UMI-7MISL	7	25/32x3/16x17/32	1.34	1.20
44F229	UMI-9MISL	9	7/8x3/16x17/32	1.46	1.30
44F230	UMI-11MISL	11	25/32x17/64x17/32	1.60	1.43
44F231	UMI-14MISL	14	7/8x17/64x17/32	1.75	1.56
44F232	UMI-20MISL	20	1 1/16x17/64x17/32	2.13	1.90
44F233	UMI-26MISL	26	1 1/4x17/64x17/32	2.49	2.23
44F234	UMI-29MISL	29	1 11/32x17/64x17/32	2.67	2.39
44F235	UMI-34MISL	34	1 1/4x3/8x17/32	3.01	2.69
44F236	UMI-44MISL	44	1 1/2x3/8x17/32	3.60	3.21
44F237	UMI-50MISL	50	1 5/8x3/8x17/32	4.37	3.90

44F238	UMI-5FIK	5	1 1/16x3/16x17/32	1.69	1.51
44F239	UMI-7FIK	7	25/32x3/16x17/32	1.89	1.69
44F240	UMI-9FIK	9	7/8x3/16x17/32	2.09	1.86
44F241	UMI-11FIK	11	25/32x17/64x17/32	2.28	2.04
44F242	UMI-14FIK	14	7/8x17/64x17/32	2.58	2.30
44F243	UMI-20FIK	20	1 1/16x17/64x17/32	3.16	2.83
44F244	UMI-26FIK	26	1 1/4x17/64x17/32	3.77	3.36
44F245	UMI-29FIK	29	11/32x17/64x17/32	4.06	3.63
44F246	UMI-34FIK	34	1 1/4x3/8x17/32	4.55	4.06
44F247	UMI-44FIK	44	1 1/2x3/8x17/32	5.54	4.95
44F248	UMI-50FIK	50	1 5/8x3/8x17/32	6.38	5.70

990 (A) POWER SERIES

Maximum Wire Size: #16 AWG. 1000 V.A.C. RMS.

44F179	990-7M(A)	7	1 1/4x1 5/8x19/32"	1.19	1.06
44F180	990-10M(A)	10	1 1/4x1 5/8x27/32"	1.99	1.78
44F181	990-15M(A)	15	2.218x2 19/32x19/32"	2.10	1.88
44F182	990-18M(A)	18	2x1 3/32x1 15/16"	2.24	2.00

44F183	990-7F(A)	7	1 1/4x1 5/8x19/32"	1.36	1.21
44F184	990-10F(A)	10	1 1/4x1 5/8x27/32"	2.32	2.08
44F185	990-15F(A)	15	2.218x2 19/32x19/32"	2.62	2.34
44F186	990-18F(A)	18	2x1 3/32x1 15/16"	2.86	2.55

990-HR SERIES—ALUMINUM HOODS

Maximum Wire Size: #16 AWG. 1000 V.A.C. RMS.

44F199	990-7HR	7	1 1/4x1 5/8x19/32"	.99	.89
44F200	990-10HR	10	1 1/4x1 5/8x27/32"	1.16	1.04

44F201	990-15HR	15	2.218x2 19/32x19/32"	1.15	1.03
44F202	990-18HR	18	2x1 3/32x1 15/16"	1.16	1.04

"M" in Type No. designates Male; "F" designates Female; "H" designates Hood.

MICRODOT CRIMP TYPE CONNECTORS

Coaxial all crimp connector. Uses 50 ohm, 70 ohm or 93 ohm cable or single conductor hook-up wire. Interlocking dielectricts—1000 Volt rating at sea level. Easy four step assembly. Standard impedance between 42 and 50 ohms.

Type 10-55. Crimping tool for above.
39F1985. Each NET **35.00**

MICRODOT ASSEMBLY HAND TOOLS

Stk. No.	Type	Description	Sh. Wt. (oz.)	Net, Ea.
39F1919	10-16	Steel	2	2.95
39F1920	10-03	Stainless steel	3	10.00
39F1921	T-3221	Aluminum	2	2.95

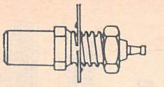
COAXIAL SWITCH

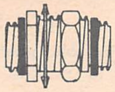
Miniature coaxial switch maintains high RF electrical efficiency. Single pole—double throw. Operative life is a minimum of 50,000 operations (de-energized). Case diamensions-1.3"Lx.6"Wx .65"H. Dielectric breakdown—750V (60 cps); 1000V (60 cps) test.

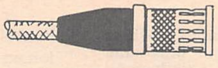
Stk. No.	Type	1-49	50-249	250-999
39F1990	90-01	39.25	35.00	32.60

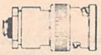
Stk. No.	Type	1-9	10-499	500-999
39F1965	031-0115	1.55	1.40	1.65
39F1966	031-0122			
39F1967	031-0116			
39F1968	031-0123			
39F1969	031-0117			
39F1970	031-0124			
39F1971	031-0120			
39F1972	032-0115	1.30	1.50	1.40
39F1973	032-0138			
39F1974	032-0117			
39F1975	032-0140			
39F1976	032-0120			
39F1977	032-0131			
39F1978	032-0146			
39F1979	032-0132			
39F1980	032-0147			
39F1981	032-0134			
39F1982	032-0148			
39F1983	033-0195	2.30	2.00	1.80

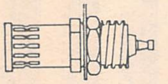
MICRODOT PLUGS AND RECEPTACLES


SOS-50, 31-49


S-50, 33-53


SOS-50, 32-55


S-50, 33-101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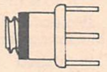
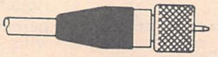

S-50, 31-59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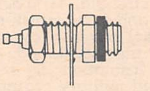

S-50, 31-50

MINIATURE COAXIAL CABLES

The variety of Microdot coaxial cables now being stocked at Newark offer design solution for your application. Features: light weight, small diameter, convenient bend radius and high operating temperatures. The dielectric material is "Teflon" for all types except for 50-3804, which is polyethylene. *At 400 mc (db/ft). Av. Shipping wt., 2½ lbs. per 100 ft.

Stock No.	Type No.	Ohms	Comparable to Mil C-17C	Attenuation*	MMF per foot	O.D. Max. (in.)	PER FOOT 1-99	100-499	500-999
37F820	2-3927	125	....	.27	....	.120	**.49**	**.39**	**.36**
37F814	2-3934	160	....	.27	....	.168	**.78**	**.68**	**.63**
37F812	50-3902	50	....	.25	29	.075	**.18**	**.15**	**.13**
37F817	50-3903	50	....	.29	29	.068	**.30**	**.23**	**.21**
37F800	50-3804	54	Minninoise	.30	29	.088	**.30**	**.23**	**.18**
38F808	50-3808	50	Hi Temp Minninoise	.35	29	.080	**.85**	**.78**	**.72**
37F818	50-3922	50	....	.21	....	.110	**.66**	**.50**	**.46**
37F813	50-3937	50	....	.29	....	.128	**.73**	**.69**	**.67**
37F809	50-3944	50	RG-178 A/U	.29	28	.075	**.26**	**.19**	**.19**
37F802	50-3920	50	RG-196-U	.29	28	.080	**.27**	**.20**	**.20**
37F815	60-3905	30	....	....	50	.045	**.30**	**.23**	**.21**
37F810	75-3923	75	RG-179 A/U	.21	20	.105	**.32**	**.24**	**.24**
37F804	75-3920	75	RG-187/U	.21	19	.110	**.35**	**.26**	**.26**
37F819	93-3907	93	....	.19	15.5	.132	**.56**	**.46**	**.42**
37F811	93-3913	100	Low Capacitance	.25	12	.132	**.19**	**.14**	**.13**
37F807	95-3920	95	RG-195-U	.17	15	.155	**.54**	**.40**	**.40**
37F816	95-3921	95	....	.17	15	.155	**.83**	**.79**	**.75**

MICROMINIATURE CONNECTORS

Engineered to perform specifically with the Microdot cables are Microdot microminiature connectors. All 50 ohm conductors are matched to 50 ohm cables with excellent results through S band. The following specifications, applicable to all connectors indicate the high performance possible with Microdot. Voltage rating: rated 850 volts peak. Finish: all shield parts are silver plated .0002 min., for 48 hours salt spray rating; all center contact parts are gold plated .00003 min. Dielectrics: all "Teflon" (except for occasional Epoxy and other seals). Insulation Resistance: all over 10^{11} ohms. Contact Resistance: all less than 0.002 ohms. The two types of connectors listed are differentiated by the prefix of the type number with "S" meaning Screw type and "SOS" meaning Slide-On type. Since cable sizes vary, the code above is completed with a suffix (of the type number) for the characteristic impedance of attaching cables, as "S-50", "SOS-93". Avg. Shipping wt., 1 oz.

SERIES S-50

Stock No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1900	31-01	Bulkhead receptacle for 1⁄16" panel, has solder pot, no keying	**1.80**	**1.71**	**1.62**	**1.53**	**1.44**
39F1901	31-02	Bulkhead receptacle for ⅛" panel, has solder pot, no keying	**1.80**	**1.71**	**1.62**	**1.53**	**1.44**
39F1902	31-03	Bulkhead receptacle for ⅛" panel, threads into panel, sold. pot	**1.80**	**1.71**	**1.62**	**1.53**	**1.44**
39F1903	31-50	Bulkhead receptacle for ⅛" panel with rnd. or "D" shaped hole for keying	**1.80**	**1.71**	**1.62**	**1.53**	**1.44**
39F1904	31-34	Jack ¼" Dia.	**2.00**	**1.90**	**1.80**	**1.70**	**1.60**
39F1905	31-33	Bulkhead jack	**2.50**	**2.37**	**2.25**	**2.12**	**2.00**
39F1906	31-59	Printed Cir. Recpt.	**1.80**	**1.71**	**1.62**	**1.53**	**1.44**
39F1907	31-61	Printed circuit recept.—Right angle	**3.00**	**2.85**	**2.70**	**2.55**	**2.40**
39F1908	32-15	Angle plug ¼" Dia.	**3.00**	**2.85**	**2.70**	**2.55**	**2.40**
39F1909	32-21	Plug—solderless	**1.50**	**1.42**	**1.35**	**1.28**	**1.20**
39F1910	32-23	Plug with 2 Teflon bushings	**1.50**	**1.42**	**1.35**	**1.28**	**1.20**
39F1911	33-01	Coupling	**2.00**	**1.90**	**1.80**	**1.70**	**1.60**
39F1912	33-53	Bulkhead feedthru for S-50 series	**2.50**	**2.37**	**2.25**	**2.12**	**2.00**
39F1913	33-101	S-50 jack to BNC adapter with UG-88 C/U plug end	**4.50**	**4.27**	**4.05**	**3.82**	**3.60**
39F1914	33-102	Same as 33-101 with UG89B/U Jack end	**4.50**	**4.27**	**4.05**	**3.82**	**3.60**
39F1915	33-103	S-50 plug to BNC adapter with UG-88 C/U plug end	**4.50**	**4.27**	**4.05**	**3.82**	**3.60**
39F1916	33-104	Same as 33-103 with UG-89 B/U jack end	**4.50**	**4.27**	**4.05**	**3.82**	**3.60**
39F1960	31-24	Ins. Bulkhead Recept.	**2.50**	**2.37**	**2.25**	**2.12**	**2.00**

SERIES S-70

Stock No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1922	31-17	Bulkhead receptacle for 1⁄16" panel, has solder pot, no keying	**1.80**	**1.71**	**1.62**	**1.53**	**1.44**
39F1923	31-51	Bulkhead receptacle for ⅛" panel with round or "D" shaped hole for keying	**1.80**	**1.71**	**1.62**	**1.53**	**1.44**
39F1924	32-10	Plug—solderless	**1.50**	**1.42**	**1.35**	**1.28**	**1.20**
39F1925	32-13	Plug—Right angle	**3.00**	**2.85**	**2.70**	**2.55**	**2.40**
39F1926	33-57	Dust type cap	**.50**	**.48**	**.45**	**.43**	**.40**
39F1927	33-105	S-70 jack to BNC adapter with UG-88 C/U plug end	**4.50**	**4.27**	**4.05**	**3.82**	**3.60**

SERIES S-93

39F1928	31-16	Bulkhead receptacle for 1⁄16" panel, has solder pot, no keying	**1.80**	**1.71**	**1.62**	**1.53**	**1.44**
39F1929	31-37	Jack, 5⁄16" Diameter	**2.00**	**1.90**	**1.80**	**1.70**	**1.60**
39F1930	31-52	Bulkhead receptacle for ⅛" panel with round or "D" shaped hole for keying	**1.80**	**1.71**	**1.62**	**1.53**	**1.44**
39F1931	31-67	Printed cir. recept.	**1.80**	**1.71**	**1.62**	**1.53**	**1.44**
39F1932	32-11	Plug—solderless	**1.50**	**1.42**	**1.35**	**1.28**	**1.20**
39F1933	32-14	Plug—right angle	**3.00**	**2.85**	**2.70**	**2.55**	**2.40**
39F1934	32-17	Plug—5⁄16" Diam.	**1.50**	**1.42**	**1.35**	**1.28**	**1.20**
39F1935	32-68	Angle plug—takes 95 ohm cable	**3.00**	**2.85**	**2.70**	**2.55**	**2.40**
39F1936	33-36	Coupling	**2.00**	**1.90**	**1.80**	**1.70**	**1.60**
39F1937	33-110	S-93 Plug to BNC adapter	**4.50**	**4.27**	**4.05**	**3.82**	**3.60**
39F1938	33-109	S-93 jack to BNC adapter with UG-88 C/U plug end	**4.50**	**4.27**	**4.05**	**3.82**	**3.60**
39F1939	33-112	S-93 plug to BNC adapter with UG-89 B/U jack end	**4.50**	**4.27**	**4.05**	**3.82**	**3.60**

SERIES SOS-50

39F1940	31-49	Bulkhead receptacle	**1.80**	**1.71**	**1.62**	**1.53**	**1.44**
39F1941	31-53	Jack	**2.00**	**1.90**	**1.80**	**1.70**	**1.60**
39F1942	31-60	Receptacle—printed circuit	**1.80**	**1.71**	**1.62**	**1.53**	**1.44**
39F1945	32-42	Plug receptacle	**2.00**	**1.90**	**1.80**	**1.70**	**1.60**
39F1946	32-55	Plug—modified for min. mating force	**1.50**	**1.42**	**1.35**	**1.28**	**1.20**
39F1948	32-63	Angle plug	**3.00**	**2.85**	**2.70**	**2.55**	**2.40**

SERIES SOS-93

39F1944	31-94	Bulkhead jack—takes 95-3920 cable	**2.50**	**2.37**	**2.25**	**2.12**	**2.00**
39F1947	32-59	Angle plug	**3.00**	**2.85**	**2.70**	**2.55**	**2.40**
39F1949	32-84	Plug—takes 95 ohm cbl.	**1.50**	**1.42**	**1.35**	**1.28**	**1.20**

SERIES SOS

39F1943	31-70	Printed circuit receptacle—Rt. angle	**3.00**	**2.85**	**2.70**	**2.55**	**2.40**

LOCKING TYPE CONNECTORS

Ultra-easy engagement and disengagement is featured in these connectors for 95-ohm cable. Will withstand up to 45 lbs. pull when locked, releases with less than 7 lbs. pull. VSWR less than 1:25:1 up to 10kmc. Avg. Shipping wt., 1 oz.

Stk. No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1950	31-101	Receptacle	**5.50**	**5.40**	**5.20**	**4.80**	**3.48**
39F1951	32-101	Plug	**6.90**	**6.80**	**6.60**	**6.50**	**6.40**

ULTRA-MINIATURE CONNECTORS

World's smallest 50-ohm coax connectors! Rated 600 RMS volts max. Type 61 are receptacles, Type 62 are plugs. *Cable-mount. †Right angle. Avg. Shipping wt., 1 oz.

Stk. No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1952	61-01	Screw-on	**3.20**	**3.00**	**2.90**	**2.80**	**2.70**
39F1953	61-02	Slide-on	**3.20**	**3.00**	**2.90**	**2.80**	**2.70**
39F1954	61-03	Screw-on*	**2.40**	**2.20**	**2.00**	**1.80**	**1.65**
39F1955	61-04	Screw-on*	**2.40**	**2.20**	**2.00**	**1.80**	**1.65**
39F1956	62-01	Screw-on	**2.40**	**2.20**	**2.00**	**1.80**	**1.65**
39F1957	62-02	Slide-on	**2.20**	**2.00**	**1.80**	**1.60**	**1.40**
39F1958	62-03	Screw-on	**2.40**	**2.20**	**2.06**	**1.80**	**1.65**
39F1959	62-06	Screw-on†	**3.70**	**3.30**	**3.00**	**2.75**	**2.50**

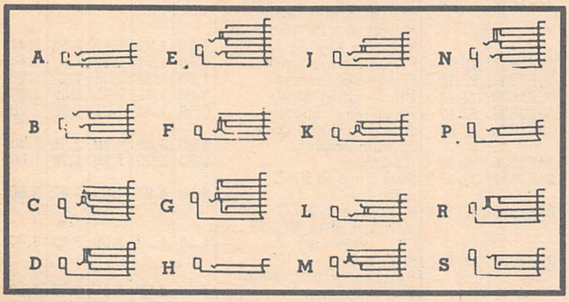
ADC PANEL CONNECTORS, TERMINAL BLOCKS

JACKS

Unique one-piece frame, which provides both dimensional stability and maximum strength, is specially plated to withstand and pass moisture and 50-hour salt spray tests. Springs are nickel silver alloy to afford maximum spring life. Connecting lugs are hot-tinned. Coin silver contacts are welded to springs. Insulation is high-grade XXX phenolic selected to meet rugged military requirements. Designed to give years of trouble free service, they are readily interchangeable, mechanically and electrically, with commonly used jacks.

Stock No.	Type	W.E. Equiv.	Config.	NET
57F112	PJ238	238A	A	**.66**
57F113	PJ240	240C	E	**1.23**
57F114	PJ241	241A	J	**1.02**
57F115	PJ242	242C	N	**1.23**
57F116	PJ339	239A	B	**.92**
57F117	PJ226	226A	F	**1.02**
57F118	PJ237	237A	K	**.87**
57F119	PJ318	218A	P	**.66**
57F120	PJ336	236C	C	**1.14**
57F121	PJ338	438C	G	**1.23**
57F122	PJ418	218C	P	**.69**
57F123	PJ115	215A	L	**.90**
57F124	PJ116	216A	R	**.90**
57F125	PJ117	217A	D	**.90**
57F126	PJ123	223A	H	**.60**
57F127	PJ125	225A	M	**1.02**
57F128	PJ203	303A	S	**.78**

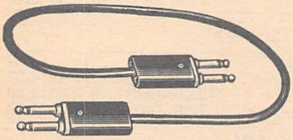
CIRCUIT CONFIGURATIONS



PJ-1. Equivalent, WE-241, heavy duty die cast frame. Black phenolic shell. Self aligning plug prongs on ⅝" center for use with all standard jack panels. Two tip conductors, plus sleeve connection common to both sleeves.

57F130. 1-24..........**2.55** 25-49..........**2.13**

PATCH CORDS



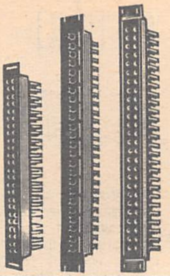
Shielded cords made of tinned copper conductor wire with heavy braided cover reinforced at each end. Cords, as well as cord assemblies with PJ-1 double plugs, PJ-5 or PJ-3 single plugs and standard black patch cords with shields grounded both ends, are considered standard.

Cord With PJ-3 Plugs

Replacement Cords for PJ-3 Plugs

Stock No.	Type	Lgth.	1-24	25-49	Stock No.	Type	Lgth.	1-24	25-49
57F133	PJ-82	2-feet	**8.70**	**7.25**	**57F136**	PJ-62	2-feet	**2.10**	**1.75**
57F134	PJ-84	4-feet	**9.30**	**7.75**	**57F137**	PJ-64	4-feet	**2.40**	**2.00**
57F135	PJ-86	6-feet	**9.90**	**8.25**	**57F138**	PJ-66	6-feet	**2.82**	**2.35**
Cord With PJ-1 Plugs									
57F139	PJ-10½	6-inch	**6.38**	**5.32**	**57F143**	PJ-14	4-feet	**7.13**	**5.94**
57F140	PJ-11	1-foot	**6.60**	**5.50**	**57F144**	PJ-15	5-feet	**7.28**	**6.07**
57F141	PJ-12	2-feet	**6.75**	**5.63**	**57F145**	PJ-16	6-feet	**7.58**	**6.32**
57F142	PJ-13	3-feet	**6.90**	**5.75**	**57F146**	PJ-10	10-feet	**8.10**	**6.75**
Cord With PJ-5 Plugs									
57F147	PJ-50½	6-inch	**3.48**	**2.90**	**57F151**	PJ-54	4-feet	**4.44**	**3.70**
57F148	PJ-51	1-foot	**3.63**	**3.03**	**57F152**	PJ-55	5-feet	**4.77**	**3.98**
57F149	PJ-52	2-feet	**3.84**	**3.20**	**57F153**	PJ-56	6-feet	**5.25**	**4.38**
57F150	PJ-53	3-feet	**4.11**	**3.43**	**57F154**	PJ-50	10-feet	**5.82**	**4.85**
Replacement Cords for PJ-1 and PJ-5									
57F155	PJ-20½	6-inch	**1.11**	**.93**	**57F159**	PJ-24	4-feet	**1.80**	**1.50**
57F156	PJ-21	1-foot	**1.50**	**1.25**	**57F160**	PJ-25	5-feet	**1.89**	**1.58**
57F157	PJ-22	2-feet	**1.65**	**1.38**	**57F161**	PJ-26	6-feet	**2.49**	**2.08**
57F158	PJ-23	3-feet	**1.74**	**1.45**	**57F162**	PJ-20	10-feet	**3.15**	**2.63**

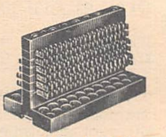
JACK PANELS



Panels are molded of solid phenolic, reinforced with steel to provide maximum rigidity and strength. Jacks are spaced to permit use of any standard double plug with ⅝" spacing. Mounting brackets and designation strips furnished with each panel. All panels designed to fit standard 19" relay rack. For use in television and broadcasting stations, recording studios, industrial paging systems, and communication equipment.

Stk. No.	Type	Description	Hgt.	1-9	20-24
57F106	PJ-31	Dbl. pan. less jacks	2⅛"	**9.45**	**7.88**
57F107	PJ-341	Dbl. pan. w/PJ-318 jacks	2⅛"	**42.75**	**35.63**
57F164	PJ-391	Dbl. pan. w/PJ-339 jacks	2⅛"	**57.30**	**47.75**
57F108	PJ-30	Dbl. pan. less jacks	1¾"	**12.90**	**10.75**
57F165	PJ-35	Dbl. pan. less jacks	1¾"	**15.60**	**13.00**
57F109	PJ-340	Dbl. pan. w/PJ-318 jacks	1¾"	**49.50**	**41.25**
57F166	PJ-350	Dbl. pan. w/PJ-318 jacks	1¾"	**52.50**	**43.75**
57F167	PJ-390	Dbl. pan. w/PJ-339 jacks	1¾"	**64.80**	**54.00**
57F168	PJ-395	Dbl. pan. w/PJ-339 jacks	1¾"	**67.50**	**56.25**
57F110	PJ-33	Sngl. pan. less jacks	1¾"	**8.52**	**7.10**
57F169	PJ-36	Sngl. pan. less jacks	1¾"	**8.70**	**7.25**
57F111	PJ-343	Sngl. pan. w/PJ-318 jacks	1¾"	**25.14**	**20.95**
57F170	PJ-360	Sngl. pan. w/PJ-318 jacks	1¾"	**27.90**	**23.25**
57F171	PJ-393	Sngl. pan. w/PJ-339 jacks	1¾"	**32.40**	**27.00**
57F172	PJ-396	Sngl. pan. w/PJ-339 jacks	1¾"	**35.10**	**23.25**

TERMINAL BLOCKS



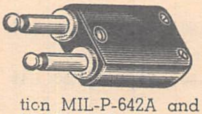
The one piece base and individual terminal separators are molded of black phenolic plastic. Interchangeable with popular telephone type blocks 100A through 100D and L3A through L6A. Terminals are .040 brass with special tin plating for improved solderability. Rows of terminals are graduated in length for ease of wiring and the top row of terminals is identified by numbering. The PJ-106 terminal block provides 120 terminals, six rows of 20 terminals each.

Stock No.	Type	Rows of Terms.	No. of Terms.	Height	1-9	10-24
57F100	PJ-101	1	20	1²⁹⁄₃₂	**3.45**	**2.88**
57F101	PJ-102	2	40	2¼	**4.65**	**3.88**
57F102	PJ-103	3	60	2¹⁹⁄₃₂	**5.85**	**4.88**
57F103	PJ-104	4	80	2¹⁵⁄₁₆	**7.05**	**5.88**
57F104	PJ-105	5	100	3⁹⁄₃₂	**8.25**	**6.88**
57F105	PJ-106	6	120	3⅝	**9.45**	**7.88**

PJ-5. Equivalent, PJ-055 (old style PL-55), WE-47, fits ¼" phone jacks. Black plastic shell. Screw terminals. Two conductor.

57F129. 1-24..........**.78** 25-49..........**.65**

TWIN PLUG

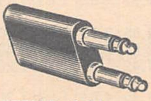


PJ-327. Twin plug. Provides two electrically independent, 2 conductor plugs in a phenolic shell which is notched to indicate polarity. Self aligning plug sleeves are on ⅝" ctrs. Designed and constructed in accordance with Military Specification MIL-P-642A and interchangeable with WE-327.

57F163. 1-24..........**2.55** 25-49..........**2.13**

PJ-3. Equivalent, PJ-51, WE-310. Designed for use with ¼" tip, ring and sleeve jacks. Molded insulation, red plastic shell. Three conductor.

57F131. 1-24..........**2.40** 25-49..........**2.00**



PJ-6. Equivalent, WE-213. Designed for applications requiring two separate 3 conductor circuits. Popularly used with operator's intercom/monitor headsets. Black shell notched for polarity identification. Self aligning plug prongs on ¹¹⁄₁₆" centers.

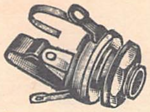
57F132. 1-24..........**9.78** 25-49..........**8.15**

ATTENTION INDUSTRIAL BUYERS! NEWARK carries complete lines of the highest quality electronic equipment. Newark can supply all of your needs, whether or not they are listed in this catalog.

PLUGS AND JACKS SWITCHCRAFT INC.

MIL. AND TELEPHONE TYPE JACKS, PLUGS AND JACK PANELS

"LITTEL-JAX" PHONE JACKS



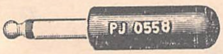
Compact phone jacks that mount with nut and washer in 3/8'' hole. Parts interlocked firmly to prevent rotation of contacts., Nickel-silver springs long lasting, hold mating plug firmly. Take standard plugs. Wt. ea., 5 oz.

Stock No.	Mfr. Type	JAN Type	No. Cond.	Circuit Type	1-49	50-99	100 up
39F782	11		2	Open	.23	.20	.18
39F662	C-11	JJ-034	2	Open	.35	.30	.27
39F663	S-11*		2	Open	.26	.23	.20
39F783	12-A		2	Single Closed	.26	.23	.20
39F664	C12-A	JJ-089	2	Single Closed	.44	.38	.34
39F665	12-B		3	Open	.32	.28	.25
39F666	S-12B**		3	Open	.38	.33	.29
39F667	C-12B	JJ-033	3	Open	.41	.35	.32
39F668	13B		3	Single Closed	.44	.38	.34
39F669	S-13B**		3	Single Closed	.56	.48	.43

*Special jack for thin-shank (.206 dia.) plugs used with Revere recorder. Also mates with S-250 and S-280 plugs below.

**Has .210 ID sleeve bushing to fit WE plug 309 and Signal Corps plug PL-68.

MIL-P-642(A) DESIGN PHONE PLUGS

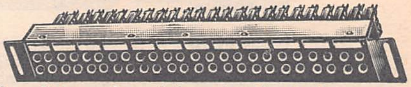


These "Littel Plugs" meet exacting JAN specs. Handle type—Black. Lug type—Screw, except * metal handle. Fit standard phone jacks. Extremely rugged. Shpg. wt., 2 oz.

Stock No.	Mfr's. Type	JAN Type	Signal Corps	No. of Conductors	1-49	50-99	100-up
39F792	440	PJ-055B	PL-55	2	.82	.70	.63
39F791	480	PJ-068	PL-68	3	2.12	1.80	1.62
22F276	430	PJ-054B	PL-54	2	.83	.70	.63
22F277	470	PJ-055M	PL-125	2	1.18	1.00	.90
22F278	*475	PJ-636	....	2	1.15	.98	.88
22F279	820	JJ-026	JK-48	2	1.18	1.00	.90
"LITTEL-PLUGS"—MIL DESIGN							
22F389	420	FJ047B	PL47	2	.88	.75	.68
22F390	425	PJ047R	PL48	2	.88	.75	.68
22F391	482	PJ051	PL51	3	2.35	2.00	1.80
"TWIN-PLUGS"—MIL DESIGN							
22F392	411	PJ327	491242	2	2.79	2.38	2.13
22F393	412	PJ289	....	2	2.65	2.35	2.11

†Navy

JACK PANELS



Polished Black phenolic panels, reinforced with steel, supports "T-Jax" or "MT-Jax". Slotted mounting brackets for standard 19" relay racks. Less jacks.

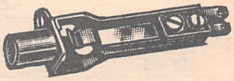
Series 1200. Single row 1¾" wide for 24 Jacks. Spaced so no shorting results. Shpg. wt., 3¼ lbs.

Series 2400. Double row Panel, 2⅛" wide for 48 Jacks. Jacks spaced ⅝" to permit use of double plug. Shpg. wt., 5 lbs.

Series 2600. Double row Panel 1¾" wide for 52 Jacks. Jacks spaced ⅝" centers. Shpg. wt., 5 lbs.

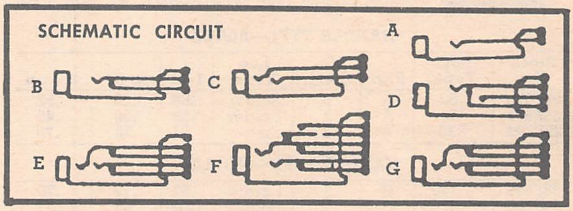
Stock No.	Type	1-49	50-99	100-up
22FX252	1200	10.69	9.00	8.10
22FX253	2400	11.76	10.00	9.00
22FX254	2600	14.70	12.50	11.25

"MT-JAX"

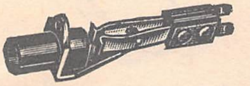


Long frame type, commonly referred to as telephone switchboard Jack. Pressure welded steel frame provides rigidity. Welded cross bar palladium contacts in all switching circuits.

Stock No.	Type	Dia.	Mil. Spec.	Mating Plug	Ht.	1-49	50-99	100-up
22FX255	MT-331	A	JJ-086	PJ-055	7/16"	.88	.75	.68
22FX256	MT-332A	B	JJ-024	PJ-055	½"	1.00	.85	.77
22FX257	MT-332B	C	JJ-022	PJ-051	9/16"	1.00	.85	.77
22FX258	MT-332C	D	JJ-016	PJ-051	9/16"	1.15	.98	.89
22FX259	MT-334B	E	JJ-042	PJ-051	⅝"	1.18	1.00	.90
22FX260	MT-336C	F	JJ-073	PJ-051	¾"	1.62	1.38	1.14
22FX261	MT-344B	G		PJ-068	⅝"	1.32	1.13	1.01
22F297	MT-334F	....		PJ-055	⅝"	1.18	1.00	.90



"LAMP JAX"



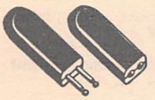
Ideal for use on regular Jack Panel such as series 1200, 2400, or 2600. Rugged steel frame placed as an insert in a mold of nylon. Lamp housing completely insulated from mtg. frame. Springs are Nickel Silver.

Paper base phenolic spacers with plastic tubes through the stack are used as insulators. Takes standard Lamp Caps.

Stock No.	Type	1-49	50-99	100-up
22FX262	LT-47A	1.18	1.00	.90

PLUGS AND JACKS

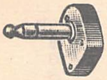
PLUG AND JACK



Make ideal connectors for hearing aids, speaker extensions, carbon microphones and other devices where space is limited. Only 1⅜'' long by ½'' wide by ⅜'' thick. Two-conductor precision. Army type. Molded black bakelite case. Machined brass pins and sockets. Sockets have strong spring contacts and solder lugs. Shpg. wt., 3 oz.

Stk. No.	MIL	Type	1-49	50-99	100-up
39F798	PJ291	410 Plug	.36	.30	.27
39F799	JJ048	810 Jack	.48	.40	.36

FLAT PLUGS



Flat design . . . projects only 15/32'' from jack! Ideal where conventional plug interferes with operation or placement of equipment. Screw-type terminals. Accept standard phone jacks. Shpg. wt., 4 oz.

Stk. No.	Type	Cond.	Handle	Lug Type	1-49	50-99	100 up
39F768	220	2	Black	Screw	.53	.45	.41
39F769	230	3	Black	Screw	.76	.65	.59

"MICRO-JAX" AND "MICRO-PLUG" SERIES

TR-2A

850

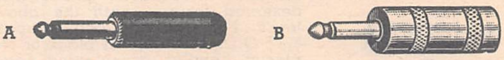
TR-2A. "Micro-Jax." Ultra-Miniaturized jacks. A 2 conductor single closed circuit design with keyed nylon insulation, interlock springs and solder lugs. Size: 17/32" L, ¼" Dia. THD 1.01".

22F394. 1-49.............. **.26** **50-99**............... **.23** **100-up**.......... **.20**

Type 850. Ultra-min. plug. Features screw-on black aluminum handle. Clamp Lug. Cable up to 7/64" Dia. Size: 1 1/64" L; ¼" O.D.

22F395. 1-49.............. **.44** **50-99**............... **.38** **100-up**........... **.34**

"LITTEL-PLUG" PHONE PLUGS



For 2 and 3-conductor cables. Fit standard jack, except S-250 and S-280. Solder types have cable clamp that clamps over metal braid of shielded cable, or outer cover of insulated cable. Screw terminal types have no cable clamp. †Shielded plugs have nickel-plated brass handles. Size, 2 57/64"x½". Shpg. wt., 3 oz.

Stock No.	Mfr. Type	Descrip.	Fig.	No. Cond.	Lug Type	1-49	50-99	100 up
39F761	245	Red Plastic	A	2	Screw	.44	.38	.34
39F674	255	Red Plastic	A	2	Solder	.41	.35	.32
39F676	269	Red Plastic	A	3	Solder	.62	.53	.47
39F760	240	Blk. Plastic	A	2	Screw	.44	.38	.34
39F763	250	Blk. Plastic	A	2	Solder	.41	.35	.32
39F675	260	Blk. Plastic	A	3	Screw	.71	.60	.54
39F771	267	Shielded†	A	3	Solder	.62	.53	.47
39F677	S-250*	Shielded†	A	2	Solder	.44	.38	.34
39F765	270	Shielded†	B	2	Screw	.62	.53	.47
39F764	280	Shielded†	B	2	Solder	.59	.50	.45
39F766	290	Shielded†	B	3	Screw	.82	.70	.63
39F767	297	Shielded†	B	3	Solder	.76	.65	.59
39F678	288**	Shielded†	B	2	Solder	.62	.53	.47
39F762	S-280*	Shielded†	B	2	Solder	.59	.50	.45
39F784	R-280*		B	2	Solder	.73	.63	.54
22F275	170		B	2	Screw	.97	.83	.75

*Special thin-shank (.206 dia.) plug for Revere recorders. Mates with Switchcraft S-128 and S-11 jacks above. R-280 Mates with No. 126 "Ext. Jax".

**Special two-conductor plug with wide insulator between tip and sleeve for use in 3-conductor jack without shorting.

SWITCHCRAFT INC. PLUGS–JACKS–MIXERS

NEWARK CARRIES COMPLETE LINES

● *NEW* "LOCK PLUG" AND "LOCK EXTENSION-JAX"

Type 282. A two conductor plug with solder lug terminals. Sleeve terminal has cable clamp. Coupling ring can be threaded to the thread projection of the mating panel Jack or to the threaded end of the Lock Extension-Jax. Makes proper contact to mating Jack without tightening or attaching coupling ring when rapid disconnect may be required. Dimensions: ½" Dia. by 3" length. Plug. ¼" dia. by 1¾" L.

Type 298. Has same specifications as Type 282 except that it is three conductor.

Type 123. A two conductor "Lock Extension-Jax" with solder lug terminals. Sleeve terminal has cable clamp. Will mate properly with standard phone Plugs where no lock requirement exists. Completely shielded. Locking device is designed into unit which makes it possible to lock the connection after plug has been inserted into Jack. Dimensions: ½" dia. by 2½" long. ⅜"-32 th'd.

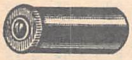
Type 133. Has same specficiations as Type 123 except that it is three conductor.

LOCK PLUGS

Stk. No.	Type	1-49	50-99	100-up
22F341	282	.83	.70	.63
22F342	298	1.03	.88	.73

LOCK EXTENSION-JAX

Stk. No.	Type	1-49	50-99	100-up
22F343	123	1.03	.88	.73
22F344	133	1.32	1.13	1.01



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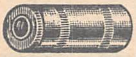


B

EXTENSION JACKS

Clamp-type terminals provide solid cable anchor. Solder lug terminals mechanically interlock. Shielded types have nickel-plated brass shell. All fit standard phone plugs, except S-128 (see note). Shpg. wt. ea., 4 oz.

HANDLE TYPE—BLACK

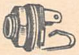
Stock No.	Mfr. Type	Fig.	No. Cond.	Lug Type	1-49	50-99	100 up
39F670	80	A	2	Screw	.68	.58	.52
39F671	88	A	2	Solder	.59	.50	.45
22F269	830	A	3	Screw	.91	.78	.70

HANDLE TYPE—SHIELD

Stock No.	Mfr. Type	Fig.	No. Cond.	Lug Type	1-49	50-99	100 up
39F672	120	B	2	Screw	.92	.78	.70
39F785	126	B	2	Solder	1.06	.93	.77
39F673	128	B	2	Solder	.83	.70	.63
39F757	1230	B	3	Screw	1.15	.98	.88
39F772	S-128*	B	2	Solder	.88	.75	.68

*Special jack for thin-shank (.206 dia.) plugs used with Revere recorder. Also mates with S-250 and S-280 plugs below.

"TINI-JAX" PHONE JACKS AND PLUGS



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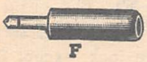
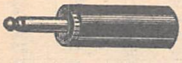


F

"Tini-Jax" is a sub-min. phone jack weighing less than ⅛ ounce. Mounts in ¼" dia. hole in panels up to ⅛" thick. "Tini-Plug" is a sub-min. 2 conductor phone plug designed for use with the above jacks. For use with cables up to 3/16" O.D. Available in black or red plastic handles or shielded brass nickel plated handle.

Stock No.	Mfr. Type	Fig.	Description	1-49	50-99	100 up
39F744	41	E	2-conductor open circuit jack	.23	.20	.18
39F745	42A	E	2-conductor closed circuit jack	.26	.23	.20
39F746	750	F	Black Ethocel handle plug	.41	.35	.32
39F747	755	F	Red Ethocel handle plug	.41	.35	.32
39F748	780	F	Shielded handle plug	.59	.50	.45

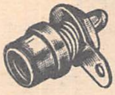


PHONE PLUGS

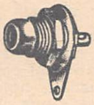
High quality general-purpose phone plugs for two or three conductors. Fit all standard phone jacks. Offered with black bakelite or nickel-plated brass handles. Staked tip-rods won't come loose . . . even after constant plugging and unplugging! Shpg. wt., 5 oz. *Solder term.

Stock No.	Mfr's. Type	Cond.	Handle Type	Handle Length	1-49	50-99	100 up
39F679	40	2	Black	2 1/16"	.45	.38	.34
39F680	70	2	Shield	2 1/16"	.72	.60	.54
39F681	160	2	Shield	1"	.54	.45	.41
39F682	60*	3	Black	2 1/16"	.63	.53	.47
39F683	90*	3	Shield	1"	.78	.65	.59

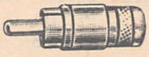
PHONO PLUGS AND JACKS



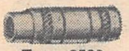
Type 3501FP



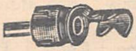
Type 3501FR



Type 3502



Type 3503



Type 3501MC

"PHONO JAX"

Model 3501FP. Standard phono jack mounts through panel and chassis with ¼"-32 nut. Fits panels up to ⅛" thick. Outside dia. 5/16". Shpg. wt., 3 oz.

39F684. 1-49.................**.20** 50-99.............. **.18** 100-up................ **.16**

Model 3501FR. Standard phono plug mounts from rear. Uses ⅜"-32 threaded locknut on panels up to 13/64" thick. 7/16" mtg. hole dia. Shpg. wt., 3 oz.

39F686. 1-49.............. **.23** 50-99.............. **.20** 100-up.............. **.18**

SHIELDED "PHONO PLUG"

Model 3502. Connects easily to cable. Terminals are designed so they may be crimped with a pliers for all temp. connection. "Handle" can be removed to expose terminals. Pin ⅝" long. Shpg. wt., 3 oz.

39F685. 1-49.............. **.29** 50-99.............. **.25** 100-up.............. **.23**

SHIELDED EXT. JACK

Model 3503. Removable handle, shielded cable clamp. Durable nickel plated body and handle. Max. cable dia. 11/64". Jack length 1 7/32". Shpg. wt., 3 oz .

22FX250. 1-49.............. **.35** 50-99.............. **.30** 100-up.............. **.27**

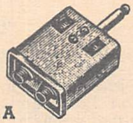
"PHONO CONNECTOR"

Model 3501MC is a simple Phono Plug that provides a convenient cable clamp. It eliminates the problem of shielded cable "breaking" loose from the old style Phono Plugs.

39F687. 1-49.. **.09**

50-99 .... **.075** **100-up**................................ **.06**

SWITCHCRAFT "MINI-MIX" AUDIO MIXERS



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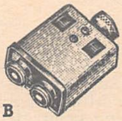

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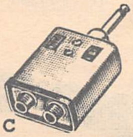


C

Dual-channel audio mixers. For 2 high impedance inputs. No external wires needed, just plug in equipment. Recessed gain control knobs are aligned to prevent confusion. Minimum lead lengths inside shielded housing end stray pickups. Size, 2½x1 13/16x1 1/16".

Fig. A. Type 310. Fitted with phone jack inputs with phone plug output. Fits standard jacks. Shpg. wt., 4 oz.

Fig. B. Type 320. Has standard PA mike inputs, and output for standard PA mike connectors. Shpg. wt., 4 oz.

Fig. C. Type 311. Has long 2-conductor plug output. Suitable for recorders with Jacks recessed such as latest Wilcox Gay, Webster Electric, V-M, etc. Shpg. wt., 4 oz.

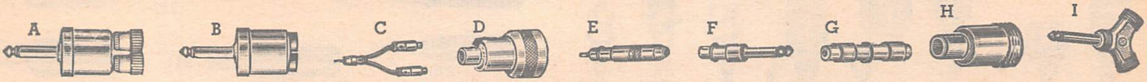
Fig. C. Type 326. 3-Cond. Jack Inputs. With long 2-cond. Plug Output. For Webcor Recorders Series 2020, 2110, and 2130. Shipping weight, 4 oz.

Stock No.	Type	1-49	50-99	100-up
39F758	310	4.67	3.98	3.58
22FX251	311	5.26	4.48	4.03
39F759	320	4.67	3.98	3.58
39F775	326	5.87	4.98	4.48

WHETHER ORDERING IN QUANTITY FOR PRODUCTION OR IN SMALL LOTS FOR SPECIALIZED USES, MAKE NEWARK YOUR ONE POINT SOURCE FOR ALL PLUGS, SWITCHES, AND MIXERS. NEWARK SAVES YOU TIME AND MONEY.

CONNECTORS, PLUGS, JACKS

SWITCHCRAFT CONNECTORS



ADAPTERS AND "Y" CONNECTORS

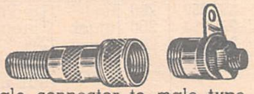
For PA, Hi-Fi, etc. Dissimilar connectors on opposite ends of 1¹⁄₃₂x1⅛" cans. Use either way. Shpg. wt., 3 oz.

Stock No.	Mfr. Type	Fig.	Input Conn.	Output Conn.	1-49	50-99	100-up
39F754	342*	A	Bind. post/ banana	Phone plug	1.53	1.30	1.17
39F756	346	B	Tip jacks (two)	Phone plug	1.26	1.08	.97
22F265	330F	C	Phono jack	Phono plug	1.03	.88	.73
22F266	334A	D	Phono jack	Female mike	.73	.68	.61
22F267	336A	E	Phono jack	Phono plug	.86	.73	.65
22F268	345A	F	Phono jack	Phono plug	.73	.68	.61
22F270	349A	G	Phono plug	Phono plug	.59	.50	.45
22F273	338B	H	Phono jack	Female mike	.73	.68	.61
22F274	330M	I	Male mike	Phone plug	1.12	.95	.86

*Input is special 3-way binding posts for wire, phone tips or banana plugs. Two terminals.

TINI-JAX MICROPHONE CONNECTORS

Designed for use with single conductor mike cable. Rugged body and coupling ring machined from brass, nickel plated. Coupling ring removable, resulting in quick change of female connector to male type. Panel connector mounts in 3⁄16" dia. hole. Ideal for use with lapel mikes, etc. Accepts 3⁄16" dia. cable. Wt., 2 oz.

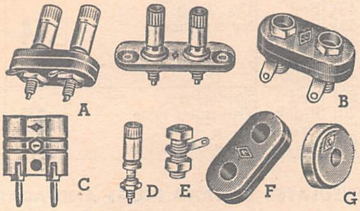


Stock No.	Type	Description	1-49	50-99	100-up
39F776	5501F	female	.36	.30	.27
39F777	5501M	male	.27	.23	.20
39F778	5501MP	male, panel	.21	.18	.16

STANDARD DOUBLE MALE AND FEMALE MIKE CONNECTOR

22F271	2501FT	female	.47	.40	.36
22F272	2501MT	male	.41	.36	.32

NATIONAL PLUGS AND JACKS



28F610. Fig. A. Type FWH. Banana jack binding posts with wire holes. Shipping weight, 3 oz. **NET**........1.10

28F612. Fig. B. Type FWJ. Twin banana jack assembly for use with FWT plug. Shipping weight, 3 oz. **NET**........87c

28F613. Fig. C. Type FWT. New design combination plug-socket that fits FWG, FWH and FWJ and takes additional FWT's. Leads out of side. Shipping weight, 3 oz. **NET**........1.56

28F614. Fig. D. Type FWA. Posts only. Brass nickel plated. Shipping weight, 3 oz. **NET**........42c

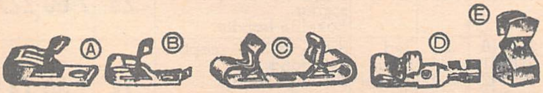
28F615. Fig. E. Type FWE. Brass nickel plated jacks. Shipping weight, 3 oz. **NET**........18c

28F616. Fig. F. Type FWC. Insulator made of R-39. Shipping weight, 3 oz. **NET Per Pr.**........60c

28F618. Fig. G. Type XS-6. Steatite bushing for mounting binding post. Fits on ½" hole. Shipping weight, 3 oz. **NET**........14c

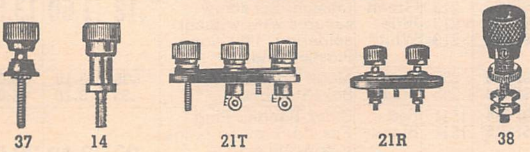
FAHNESTOCK
SPRING CLIPS BINDING POSTS

Fahnestock clips grip wire with rigid pressure for electrical contact. Other types available on special order. All clips are brass except type 36, which is bronze. Shpg. wt.. per 10—3 oz.



Stock No.	Mfr's. Type	Fig.	Length	Wire Size	Mtg. Hole	10 for	100 for	1000 for
28F560	9	C	2¹⁄₁₆"	No. 10	No. 8	.55	4.40	38.00
28F561	18	C	1½"	No. 14	No. 6	.60	4.80	40.00
28F562	2	A	1"	No. 10	No. 8	.20	1.60	12.80
28F563	5	B	1¹⁄₁₆"	No. 10	No. 8	.35	2.80	22.40
28F564	36	D	1⅝"	No. 10	Lug	1.20	10.60	82.00
28F565	45	E	¾"	No. 12	No. 6	.25	2.00	16.00

EBY BINDING POSTS



Have fully insulated bases and non-removable knobs. Molded bakelite. Shpg. wt., 2 oz.

28F581. Type 37. Stem, 6-32x9⁄16"........26c

28F582. Type 40. Similar to above, knob, 9⁄16" dia.; stem, 8-32x⅞"; base, ⅝x¼"........38c

28F583. Type 38. Stem, 6x32x9⁄16" with 1⁄16" insulating flattened boss base........29c

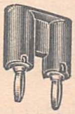
28F584. Type 14. Sergeant. With slot ⅛x5⁄32". Nickel-plated. Stem, 8-32x½". **NET**........35c

28F585. Type 21R. Twin Post. Base 2x1¹⁄₁₆x3⁄16". Distance between posts, ⅞". Wt., 4 oz. **NET**........82c

28F586. Type 21T. Triple Post. As above with two insulated and one grounded post. Base size, 2⅜x1¹⁄₁₆". Wt., 5 oz. **NET**........1.08

GENERAL RADIO

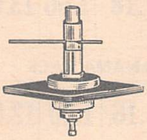
DOUBLE BANANA PLUG



General Radio. Type 274-MB. Rated 4000 volts, 15 amps, peak. Spacing between prong centers ¾". Shpg. wt., 2 oz.
28F589. NET........65c

DAVEN

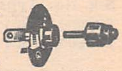
COMPONENT LEAD HOLDER ASSEMBLY



Model CLH-104. For use in development, qualifications and reliability assurance testing of component parts up to 200°C or better. Jaws of contact are opened by pressure in the top of the connector plunger. Angular cut on the movable jaw assures a low contact resistance. Connector body and plunger are made of brass with a heavy nickel and gold plate. The metal connector mounts in a specially-designed electrical grade steatite insert which in turn is mounted in a stainless steel panel. The top of the steatite insert is molded to accept the square bottom of the connector in any of four positions and a keyway is provided in the insert so that the insert cannot rotate. The assembly is impervious to changes in temperature from a mechanical standpoint and at the same time provides a rigid lead connection—part holding action and extremely high insulation resistance. Body diameter 3⁄16". Base insulator diameter ½". Height above panel 51⁄64". Total length 15⁄16".

Stock No.	1-99	100-999	1000-4999
10F130	.90	.85	.65

PHONO PIN PLUG AND JACK



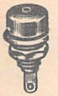
Pin Plug. Cinch No. 13A. Nickel plated. Fits standard phono jack. Pin diameter ⅛".
39F796. 1-99........ .08
100-up........ .039

Shielded Jack. Cinch No. 81A. Has two mounting holes on 1¹⁄₁₆" centers. For chassis mtg.
39F797. 1-99........ .13
100-up........ .063

MODEL 2R2

110-250 volt 2 prong socket. Rated at 15 amp., 110V or 10 amp., 250V. Molded from high dielectric black bakelite.
39F394. 1-99........ .19
100-up........ .095

H. H. SMITH CONNECTORS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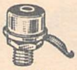
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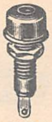
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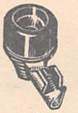
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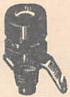
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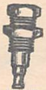
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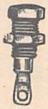
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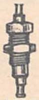
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INSULATED PHONE TIP JACKS

Nickel plated brass body with molded 7/16 inch bakelite head. Supplied w/hex nut and fibre washer. Mounts in 5/16 inch holes in panels up to 3/8 inch thick.

Stk. No.	Type	Color	Description	Each	10 for	100 for
39F856	202	Red	Accepts std. Phone tip plug. Length 1 1/64″.	.13	1.20	10.00
39F857	202	Black				
39F858	202	Green				
39F859	202	Yellow				

ALL NYLON TIP JACKS

Self insulating nylon molded body. Hex nut: brass nickel plated. Mounts in 1/4 inch hole in panels up to 1/4 inch thick.

Stk. No.	Type	Color	Description	Each	10 for	100 for
35F750	1505	White	Wrap around type. Fits all standard phone tip plugs. Length: 59/64″.	.21	1.90	16.00
35F751	1505	Red				
35F752	1505	Black				
35F753	1505	Green				
35F754	1505	Blue				
35F755	1505	Yellow				
35F756	1506	White	Spade terminal type. Fits all standard phone tip plugs. Length: 63/64″.	.30	2.70	24.50
35F757	1506	Red				
35F758	1506	Black				
35F759	1506	Green				
35F760	1506	Blue				
35F761	1506	Yellow				
35F762	1507	White	Feed thru types. Fits all standard phone tip plugs. Length: 1 1/64″.	.28	2.50	21.00
35F763	1507	Red				
35F764	1507	Black				
35F765	1507	Green				
35F766	1507	Blue				
35F767	1507	Yellow				

INSULATED BANANA JACKS

Nickel plated brass body and molded bakelite head. Supplied w/hex nut and fibre washer. Mount in 5/16 inch holes in panels up to 3/8 inch thick.

Stk. No.	Type	Color	Description	Each	10 for	100 for
39F967	219	Red	Body is recessed. Also supplied w/lockwasher and brass tinned lug. Length: 23/32″.	.15	1.30	11.00
39F968	219	Black				
39F969	219	Yellow				
39F970	219	Green				
39F971	219	Blue				
39F868	205	Red	Accepts std. banana plug. Also supplied w/brass tinned lug. Length: 21/32″.	.13	1.20	10.00
39F869	205	Black				
39F870	205	Green				
39F871	205	Yellow				

INSULATED MIDGET BANANA JACK

Molded nylon 3/8″ head and washer. Nickel plated brass body. W/hex nut and brass tinned lug. For std. banana plugs.

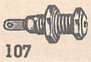
Stk. No.	Type	Color	Description	Each	10 for	100 for
39F972	221	Red	Insulated from panel. Mts. in 5/16″ hole in panels up to 1/4″ thick. Length: 5 3/64″.	.18	1.60	13.00
39F973	221	Black				
39F974	221	Yellow				
39F975	221	Green				
39F976	221	Blue				

COMBINATION—PHONE TIP AND BANANA JACK

Stk. No.	Type	Color	Description	Each	10 for	100 for
39F860	206	Red	Insulated. Accepts std. phone tip or banana plug. Length: 1 1/32″	.16	1.40	12.00
39F861	206	Black				

NON-INSULATED JACKS

Type 107. Phone Tip Jack. Accepts std. phone tip plugs. Supplied w/hex nut.
Type 109. Banana Jack Accepts std. banana plugs. W/hex nut and brass tinned lug.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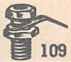
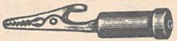

109

Stk. No.	Type	Description	Each	10 for	100 for
39F855	107	Phone Tip Jack. 15/16″ long	.10	.90	7.50
39F867	109	Banana Jack. 5/8″ long.	.10	.90	7.50

CLIP ADAPTERS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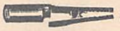
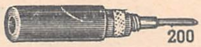

336

Plastic handle.
Steel, cadmium plated clips. Brass body, bronze phosphor spring.

Stk. No.	Type	Color	Description	EACH	10 for	100 for
28F604	304	Red	Permits adapting phone tip plugs to alligator clip.	.32	2.85	25.00
28F605	304	Black				
35F948	305	Red	Permits adapting std. phone tip or banana plugs to alligator clip.	.38	3.40	29.00
35F949	305	Black				
39F1652	336	Red	Fully insulated with plastic permits adapting phone tip plugs to alligator clip.	.35	3.20	27.00
39F1653	336	Black				
39F1650	337	Red	As 336 except with solder type connection, not jack.	.24	2.20	18.00
39F1651	337	Black				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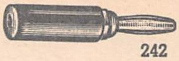
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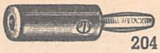
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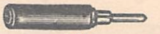
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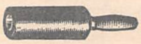
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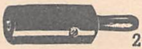
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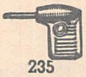
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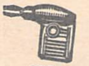
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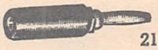
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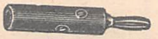
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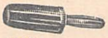
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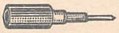
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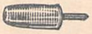
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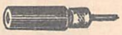
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INSULATED TIP PLUGS

Nickel Plated Brass Plugs. Fit Std. Phone Tip Jack.

Stk. No.	Type	Color	Description	EACH	10 for	100 for
39F852	200	Red	Tip Plug Solderless. Threaded type. 2 5/32″ long. Bakelite handle.	.15	1.30	11.00
39F853	200	Black				
39F848	200	Green				
39F849	200	Yellow				
39F846	270	Red	Sub-miniature tip plug. 1 23/32″ long. Fibre handle	.18	1.60	13.50
39F847	270	Black				
39F963	235	Red	Meter Tip Plug. Bakelite handle.	.26	2.40	19.50
39F964	235	Black		.26	2.40	19.50
35F769	491	White	Short tip type. 1 3/8″ long. Nylon handle	.14	1.25	10.50
35F770	491	Red				
35F771	491	Black				
35F772	491	Green				
35F773	491	Blue				
35F774	491	Yellow				
35F775	201	Red	Solderless. Threaded type. 1 15/16″ long. Bakelite handle.	.15	1.30	11.00
35F776	201	Black				
35F777	201	Green				
35F778	201	Yellow				

INSULATED BANANA PLUGS AND ADAPTERS

Nickel Plated Brass Plugs. Fit Std. Banana Jack.

Stk. No.	Type	Color	Description	EACH	10 for	100 for
39F934	212	Red	4 leaved phosphor bronze nickel plated springs. 1 7/8″ long. Bakelite handle.	.21	1.90	16.00
39F935	212	Black				
39F936	212	Yellow				
39F937	212	Green				
39F938	212	Blue				
39F939	212	White				
39F844	242	Red	4 leaved beryllium copper, nickel plated spring. Bakelite handle.	.29	2.60	22.00
39F845	242	Black				
39F940	211	Red	Same as 212 except 1 5/8″ long. Bakelite handle	.18	1.60	13.50
39F941	211	Black				
39F942	211	Yellow				
39F943	211	Green				
39F944	211	Blue				
39F945	211	White				
39F863	204	Red	With side wire locking set screw. 4 leaved phosphor bronze spring. 1 9/16″ long. Bakelite handle.	.18	1.60	13.50
39F864	204	Black				
39F865	204	Green				
39F866	204	Yellow				
39F957	213	Red	Banana Plug. Split type with side screw. Cross slotted for spring tension. Set screw secures wire without soldering. 1 9/16″ long. Plastic handle.	.18	1.60	13.50
39F958	213	Black				
39F959	213	Yellow				
39F960	213	Green				
39F961	213	Blue				
39F962	213	White				
39F965	255	Red	Meter Banana Plug. Bakelite handle.	.35	3.10	26.00
39F966	255	Black		.35	3.10	26.00
39F914	1511	Red	Stack Banana Plug. Fits std. banana plugs in top and side. 4 leaved phosphor bronze spring. 2″ long. Plastic handle.	.27	2.40	20.00
35F915	1511	Black				
39F916	1512	Red	Same as 1511 except with beryllium copper spring.	.29	2.60	22.00
39F917	1512	Black				
35F779	455	White	Solderless. 1 9/16″ long. Nylon handle.	.21	1.90	16.00
35F780	455	Red				
35F781	455	Black				
35F782	455	Green				
35F783	455	Blue				
35F784	455	Yellow				
35F785	215	Red	Adapter. Accepts std. banana plug, adapts to std. tip plug. 1 7/8″ long.	.15	1.30	11.00
35F786	215	Black				

H. H. SMITH CONNECTORS

NON INSULATED PLUGS

102

103

104

106

105

108

403

Solderless tip plugs. Wire fits through body of tip, and is wrapped around screw portion and tightened with knurled collar. Fits std. phone tip jacks.

Stk. No.	Type	Des.	L.	Each	10	100
39F850	105	Sr. type	$1\frac{15}{32}$"	.10	.90	7.50
39F851	106	Jr. type	$1\frac{3}{16}$"	.10	.90	7.50

Solder type. For std. phone tip jacks.

39F854	108	Phone cord repl. tip	.025	.20	1.50

Banana plugs. Supplied with hex nut and phosphor bronze lug. Hex brass nickel plated body. Fits std. banana jacks. With phos.-spring except (*) Type 104.

Stk. No.	Type	Des.	Thread	Overall	Ea.	10	100
38F292	104*	Split type, cross-slotted body	6-32x½	1¼	.13	1.20	10.00
38F298	403	4 leaved spring	6-32x½	$1\frac{11}{32}$	.18	1.60	13.50
38F290	102	4 leaved spring	6-32x⅜	$1\frac{7}{32}$	.15	1.30	11.00
38F291	103	4 leaved spring	6-32x⅜	$1\frac{11}{32}$	.15	1.30	11.00

INSULATED JUMBO ALLIGATOR CLIPS

Solder connection with plastic handle. ⅝" jaw opening. For heavy terminal use.

Stk. No.	No.	Type	Color	Each	10 for	100 for
35F848	397	Solid copper	Red	.24	2.20	18.00
35F849	397	Solid copper	Black	.24	2.20	18.00

DUAL ASSEMBLIES

284

269

Molded black styrene washer, cross slotted to accept std. phone tips in pose either forward, back, or side ways. Mts. in two ½" holes on ¾" mtg. ctrs. in panels up to ¼" thick. Supplied with 4 hex nuts and 2 washers. 285 connectors have captive type nylon heads with nickel plated brass insert; 269 connectors have captive type molded bakelite with nickel plated brass insert.

Stk. No.	Type	Color	Each	10 for	100 for
39F1654	284BB	2 black heads	.60	5.40	50.00
39F1655	284RR	2 red heads			
39F1656	284RB	1 black—1 red head			
35F845	269BB	2 black heads	.65	6.00	50.00
35F846	269RR	2 red heads			
35F847	269RB	1 black—1 red head			

BINDING POSTS

136

220

257

265

266

379

Brass nickel plated head and body. Accepts std. phone tips or banana plug. ⅜" head dia. $\frac{7}{16}$" long.

Stk. No.	Type	Description	Each	10	100
38F293	136	Metal Binding Post	.12	1.10	9.00

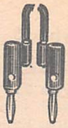
Molded bakelite head with molded in brass threaded insert. Complete with 8-32 threaded screw ½" long and nickel plated brass lockwasher. ½" head dia.

Stk. No.	Type	Color	Description	Each	10	100
35F827	265	Red	Binding Post	.15	1.30	11.00
35F832	265	Black	Binding Post	.15	1.30	11.00
35F828	266	Red	Binding Post	.18	1.60	13.50
35F831	266	Black	Binding Post	.18	1.60	13.50

Captive, molded plastic head and nickel plated brass body. Accepts phone tip plug, spade lug, banana plug, alligator clip or wire strand. Insulating washer supplied. 2 hex nuts supplied. 8-32 threaded stud length $1\frac{11}{32}$".

Stk. No.	Type	Color	Description	Each	10	100
38F296	220	Red	5-way grnd. type	.18	1.60	13.50
38F297	220	Black		.18	1.60	13.50
35F799	379	Red	grnd. type	.21	1.90	16.00
35F748	379	Black		.21	1.90	16.00
35F749	257	Black		.36	3.20	27.00
35F844	257	Red	5-way grnd. type	.36	3.20	27.00

MOLDED CROSS PATCH CORDS



Consist of 10,000V. rubber covered flexible wire (65 stds. #36) O.D. .140" cabled to two molded plastic banana plugs with four leaved beryllium copper, nickel plated springs. Interconnects unlimited number of multiple circuits. Contacts for banana plugs on top and side.

8" LONG

Stk. No.	Type	Color	Description	EACH	10 for
35F910	1510-8	Red	With $1\frac{9}{32}$" plug spring	.90	8.10
35F911	1510-8	Black			
35F912	1515-8	Red	With $1\frac{3}{32}$" plug spring		
35F913	1515-8	Black			

12" LONG

Stk. No.	Type	Color	Description	EACH	10 for
35F833	1510-12	Red	With $1\frac{9}{32}$" plug spring	.90	8.10
35F834	1510-12	Black			
35F835	1515-12	Red	With $1\frac{3}{32}$" plug spring		
35F836	1515-12	Black			

24" LONG

Stk. No	Type	Color	Description	Each	10	100
35F791	1510-24	Red	With $1\frac{9}{32}$" plug spring	.96	8.60	78.00
35F792	1510-24	Black				
35F793	1515-24	Red	With $1\frac{3}{32}$" plug spring			
35F794	1515-24	Black				

36" LONG

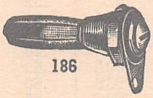
Stk. No	Type	Color	Description	Each	10	100
35F795	1510-36	Red	With $1\frac{9}{32}$" plug spring	1.02	9.20	83.00
35F796	1510-36	Black				
35F797	1515-36	Red	With $1\frac{3}{32}$" plug spring			
35F798	1515-36	Black				

1-11/16" INSULATED SPADE LUG

With jack to permit insertion of banana plug.

Stk. No	Type	Color	Description	Each	10	100
39F977	218	Red	.030" hot tinned steel	.11	1.00	8.00
39F978	218	Black	.030" hot tinned steel	.11	1.00	8.00

GIANT BANANA PLUGS AND JACKS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285

187

GIANT BANANA PLUGS. Hex brass, nickel plated body, 6 leaved, phosphor bronze, nickel plated spring.

Stk. No.	Type	Color	Description	EACH	10 for	100 for
32F829	285	Red	Insulated. Has large deep internal well for soldering heavy duty wire. Machined plastic handle. 2⅞" long.	.45	4.05	35.00
32F830	285	Black				
38F295	186	Nickel plated	Supplied with screw and brass tinned lug. Internal female permits use on all size panels. $1\frac{3}{16}$" long.	.30	2.70	24.50

INSULATED GIANT BANANA JACKS. Supplied with hex nut, fibre washer, lockwasher, screw and tinned copper lug. Mts. in ½ in. hole in panels up to ¾ in. thick.

Stk. No.	Type	Color	Each	10 for	100 for
35F946	286	Red	.42	3.80	33.00
35F947	286	Black	.42	3.80	33.00

GIANT BANANA JACK. Supplied with hex nut and brass tinned lug, mounts in inch hole in panels up to ½ inch thick. Body: Hex brass nickel plate.

Stk. No.	Type	Color	Each	10 for	100 for
35F789	187	Brass	.30	2.70	24.50

TELEPHONE PLUGS AND JACKS

276

226

Type 276. Brass, nickel plated bushing. Bakelite insul. W/hex brass nut and steel mounting washer.

Type 226. Brass, nickel plated with tubular insul. Tested at 1000 VAC. Fits std. phone jacks. Solder terminals.

Stk. No.	Type	Description	Ea.	10	100
35787	276	2-Conductor Closed	.30	2.70	24.50
35788	226	2-Circuit, Solder terminals	.60	5.40	50.00

P.R. MALLORY & CO. Inc.
MALLORY

PLUGS–JACKS–BINDING POSTS

PHONE AND MICROPHONE JACKS

Type 55. Adapts standard microphone connector for use with conventional jack. Length, $1\frac{7}{16}$''. Shipping weight, 4 oz.
39F742. NET .... **.30**

Type 75. Two-way phone plug with tie-cord anchor and insulated phenolic shell. Brass terminals for either phone tips or wire. Length $2\frac{13}{16}$''. Handle, $1\frac{9}{16}$'' long. Shpg. wt., 3 oz.
39F700. NET .... **.45**

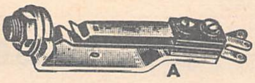
Type 75N. Two-way phone plug with tie-cord anchor and polished, shielded nickel shell. Brass screw terminals. Overall length, $2\frac{13}{16}$''. Handle, $1\frac{5}{8}$''. Shipping weight, 8 oz.
39F701. NET .... **.66**

Type 75A. Two-way phone plug with tie-cord anchor and polished, shielded nickel shell and cable clamp. Brass screw terminals. Length $3\frac{1}{16}$''. Handle, $1\frac{13}{16}$''. Shpg. wt., 4 oz.
39F702. NET **1.05**

Type 76. Similar to type 75. Three-way microphone plug with insulated phenolic shell. Silver-plated lug terminals. Overall length, $2\frac{13}{16}$''. Handle, $1\frac{9}{16}$'' long. Shipping weight, 3 oz.
39F703. NET .... **.66**

Type 76A. Similar to 75A. Three way mike plug in polished, shielded nickel shell with cable clamp. Silver-plated lug terminals. Length, 3''. $1\frac{13}{16}$'' handle. Shipping weight, 4 oz.
39F704. NET **1.17**

Type 85. Two-way miniature phone plug. $2\frac{1}{4}$'' long. Wt., 4 oz.
39F743. NET .... **.36**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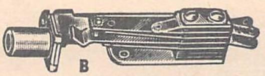
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LONG FRAME (Fig. A) AND JUNIOR JACKS (Fig. C)

Long frame jacks (Fig. A) mount in $\frac{7}{16}$'' hole in panels up to $\frac{1}{4}$'' thick; require $3\frac{3}{8}$'' behind panel. Junior jacks (Fig. C) extend $1\frac{5}{16}$'' behind panel. Mount in $\frac{3}{8}$'' hole in panels up $\frac{5}{16}$'' thick. Nickel plated brass frames and bushings. All take standard plugs. With mounting nut and washer. Wt., 4 oz.

Circuit Diagram	Stock No.	Long Type	Net Each	Stock No.	Junior Type	Net Each
1	**39F708**	1	.45	**39F724**	701	.45
2	**39F709**	2	.57	**39F725**	702	.52
3	**39F710**	2A	.57	**39F726**	702A	.57
4	**39F711**	2B	.57	**39F727**	702B	.57
5	**39F712**	3	.60	**39F728**	703	.60
6	....		....	**39F729**	703A	.60
7	**39F714**	3B	.60	**39F730**	703B	.60
8	....	......	....	**39F731**	703C	.60
9	....	......	....	**39F732**	704	.69
10	....	......	....	**39F733**	704A	.69
11	**39F718**	4B	.75	**39F734**	704B	.69
12	**39F719**	5	.90	**39F735**	705	.75
13	**39F720**	6	1.05	....	....	.....

SC JACKS

SC-1A Phone Jack. Fig. E. Open circuit, 2-conductor, diagram 1. Commercial equivalent of military jack No. JJ-034. Requires $\frac{7}{8}$" mounting space behind panel. Designed to receive these plugs: Mallory 75, West. Electric 47A and 47B, Signal Corps PL-47, PL-48, PL-55, PL-148, PL-155, PL-125 and Jan plugs PJ-055, PJ-155, PJ-634, PJ-636, and PJ-047. Shpg. wt. 2 oz.

39F780. NET .... **.36**

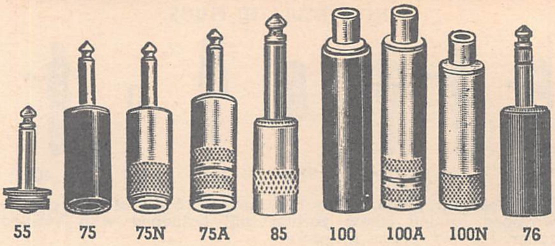
SCA-2B. Microphone Jack. Fig. F. Open circuit, 3 conductor, diagram 4. Commercial equivalent of Military Jack No. JJ-033. Requires $\frac{7}{8}$" mounting space behind panel. Designed to receive these plugs: West. Electric 109, and Signal Corps PL-68, PL-168, and Jan plugs PJ-068, PJ-168, and PJ-309. Shpg. wt. 2 oz.

39F781. NET .... **.42**

LA JACKS

Similar in basic design and size to SC1A and SCA2B Signal Corps jacks but have commercial construction for use in commercial electronic equipment. Have $\frac{3}{8}$" x 32 brass bushings, cadmium-plated. Contact springs are silver plated, spring brass to assure low contact resistance. Insulation is high-grade phenolic. Mounting depth behind panel is approximately 1". Mounting radius approximately $\frac{1}{2}$". Use with No. 75, 75N, 75A or 85 phone plugs. Shpg. wt. 2 ozs.

Stk. No.	Type	Circuit Diagram	Description	NET
35F838	LA-1	1	Open circuit jack	.27
35F839	LA-2	2	Shorting jack	.30
35F840	LA-2A	3	Closed	.33



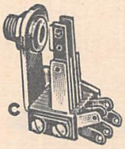
EXTENSION TYPE JACKS

Type 100. Two-way extension jack for type 75 phone plug. Fiber shell. $2\frac{3}{4}$'' long. Overall length, $3\frac{1}{4}$'. Shpg. wt., 4 oz.
39F705. NET .... **.84**

Type 100N. Two-way extension jack for type 75N phone plug. Highly polished, shielded nickel shell. Overall length, $3\frac{5}{16}$''. Shipping weight, 6 oz.
39F706. NET **1.08**

Type 100A. Two-way extension jack for type 75A phone plug. Shielded nickel shell with built-in cable clamp. Overall length, $3\frac{1}{16}$''. Shipping weight, 5 oz.
39F707. NET **1.50**

C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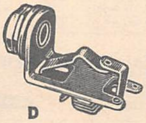
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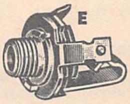
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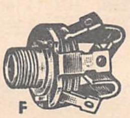


SWITCHBOARD AND INDUSTRIAL JACKS (Fig. B)

Industrial jacks are similar to long frame jacks (Fig. B) at left, but have special frame angle to provide greater support. Have plain, unthreaded bushing. Mount with single screw thru panel. Takes standard plugs. Shipping wt., 4 ozs.

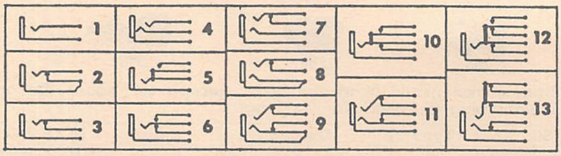
Stock No.	Mfr's. Type	Circuit No.	Description	NET EACH
39F721	XP-1	1	Open circuit jack	.63
39F722	XP-2B	3	Mike Jack	.75
39F723	XP-3B	6	Single circuit, make-break	.90

MIDGET TYPES (Fig. D)

Midget jacks have a shorter frame and spring than the Junior jack. For minimum clearance positions. Extend $1\frac{9}{32}$'' behind panel; *infant type only $\frac{7}{8}$''. Both will take standard plugs. Average shipping weight, 4 oz.

39F737	*A-1	1	Open circuit jack	.39
39F738	A-2	2	Shorting jack	.48
39F739	A-2A	3	Closed circuit jack	.57
39F740	A-3A	6	Single circuit, make-break	.66
39F741	*GJ-1	1	Aircraft grounding jack	.36

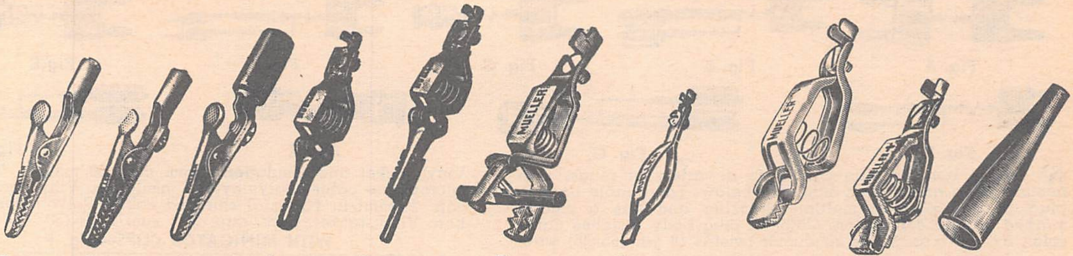
CIRCUIT DIAGRAM



ATTENTION INDUSTRIAL BUYERS!

NEWARK carries complete lines of the top quality electronic equipment. Newark can supply all your needs, whether or not they are listed in this catalog. Save time! Save money! Make Newark your one point source for all electronic needs.

MUELLER CLIPS



For making quick temporary electrical conections. Clips are *solid copper, †cadmium-plated steel, ‡solid bronze, (**) lead plated steel.

ALLIGATOR CLIPS

Stock No.	Mfr's. Type	Fig.	Description	Size	Ea.	10 for	100 for
28F500	60	A	†Solder connection	2″	.07	.46	4.00
28F501	60-S	B	†Screw connection	2″	.08	.52	4.40
28F502	60-CS	B	*Screw connection	2″	.12	.80	6.90

INSULATED ALLIGATOR CLIPS

Stock No.	Mfr's. Type	Fig.	Description	Size	Ea.	10 for	100 for
28F503	60-HS	C	†Screw conn. Red	2 11/32″	.11	.75	6.40
28F504	60-HS	C	†Screw conn. Black	2 11/32″	.11	.75	6.40
28F505	60-CHS	C	*Screw conn. Red	2 11/32″	.15	1.00	8.60
28F506	60-CHS	C	*Screw conn. Black	2 11/32″	.15	1.00	8.60

CROCODILE CLIPS

Stock No.	Mfr's. Type	Fig.	Description	Size	Ea.	10 for	100 for
28F507	85	D	†Screw connection	2⅛″	.09	.60	5.20
28F508	85-C	D	*Screw connection	2⅛″	.18	1.20	10.50
28F509	85-T	E	†"Tip Clip" phone tip	2⅝″	.22	1.50	13.00
28F510	50-C	F	‡Needle clip, screw conn.	2¼″	.28	2.00	16.60
28F511	51-C	F	‡Less needle, screw conn.	2¼″	.19	1.30	11.00

PHOSPHOR BRONZE WEE-PEE-WEE CLIPS

28F512	88	G	Thin nose. Non-ferrous. For coils and HF work	1 11/16″	.22	1.50	13.00

MESH-TEETH TEST CLIPS

Stock No.	Mfr's. Type	Fig.	Amp.	Size	Open	EACH	10 for	100 for
28F513	45†	I	5	1½″	5/16″	.07	.50	4.20
28F514	45C*	I	10	1½″	¼″	.14	.95	8.00

BATTERY CLIPS

Stock No.	Mfr's. Type	Fig.	Amp.	Size	Open	EACH	10 for	100 for
28F516	24A**	I	25	2⅞″	¾″	.23	1.60	13.40
28F517	21A**	I	50	4″	1⅛″	.40	2.80	24.00
28F518	11A**	I	100	6″	1¾″	1.06	7.50	64.00

SOLID COPPER CLIPS

Stock No.	Mfr's. Type	Fig.	Amp.	Size	Open	EACH	10 for	100 for
28F519	24C*	I	50	2⅞″	⅞″	.38	2.70	23.00
28F520	21C*	I	100	4½″	1⅛″	.97	6.80	58.00
28F521	11C*	I	200	6″	1¾″	1.81	12.70	108.00
28F522	33C*	I	300	7¾″	2⅛″	3.35	23.50	202.00

3-SIDED MESH TEETH CLIPS

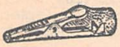
28F523	27†	H	20	2 7/16″	⅝″	.13	.74	7.70
28F524	27C*	H	40	2 7/16″	⅝″	.23	1.10	13.40
28F515	48B†	H	10	2″	7/16″	.11	.90	6.30
28F538	48C*	H	20	2″	7/16″	.15	1.60	9.20

FLEXIBLE INSULATORS FOR CLIPS LISTED ABOVE—FIG. J

Protect against electric shock and short circuit. Vinylite except (*) rubber compound. Vinyl insulators available also in white, blue, yellow and green on special order. Add 10% to price.

Stock No.	Type	Color	For Clip	NET EA.	10 for	100 for
28F476	47	Red	45, 45C	.06	.40	3.50
28F477	47	Blk	45, 45C	.06	.40	3.50
28F478	49	Red	48B-C, 50-51C	.09	.65	5.40
28F479	49	Blk	48B-C, 50-51C	.09	.65	5.40
28F480	35*	Red	33C	2.93	20.50	176.00
28F481	35*	Blk	33C	2.93	20.50	176.00
28F482	26	Red	24A-24C	.21	1.50	13.00
28F483	26	Blk	24A-24C	.21	1.50	13.00
28F484	23	Red	21A-21C	.40	2.80	23.70
28F485	23	Blk	21A-21C	.40	2.80	23.70

Stock No.	Type	Color	For Clip	NET EA.	10 for	100 for
28F486	29	Red	27, 27C	.13	.90	7.60
28F487	29	Blk	27, 27C	.13	.90	7.60
28F488	13	Red	11C, 11A	.80	5.60	48.00
28F489	13	Blk	11C, 11A	.80	5.60	48.00
28F490	87	Red	85, 85C, 85T	.06	.40	3.50
28F491	87	Blk	85, 85C, 85T	.06	.40	3.50
28F492	62	Red	60, 60CS, 60S	.05	.35	3.00
28F493	62	Blk	60, 60CS, 60S	.05	.35	3.00
28F494	93	Red	88	.12	.80	7.00
28F495	93	Blk	88	.12	.80	7.00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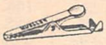

L

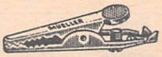
MINI-GATOR CLIPS

Miniaturized clip designed for No. 20 wire, provides quick, strong connection even in smallest areas. Penetrates corrosion. Easily removed. 1 1/16″ length, 3/16″ jaw spread. Shpg. wt. ¼ lb. per 100.

No.	Type	Description	Fig.	NET	10 for	100 for
28F528	30	Steel Cad. Plated	L	.06	.40	3.40
28F529	30C	Copper	L	.07	.50	4.30
28F472	32	Red Insul. for above	K	.05	.30	2.50
28F473	32	Blk. Insul. for above	K	.05	.30	2.50

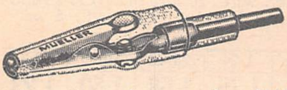
SERIES 70 CLIPS

Designed similar to No. 30 mini-gator clip but with dimensions of popular No. 60 alligator. In either *solid copper or †cadmium plated steel. Strong spring gives bite thru protective coatings. Fine meshing teeth and slim jaws for work in close quarters.



No.	Type	Description	NET	10 for	100 for
28F530	70	†Solder connection	.07	.42	3.60
28F531	70S	†Screw connection	.08	.48	4.10
28F532	70CS	*Screw connection	.11	.75	6.40
28F474	72	Red insul. for above	.05	.35	3.00
28F475	72	Blk. insul. for above	.05	.35	3.00

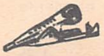
INSULATED ALLIGATOR CLIPS



Fully insulated alligator clips. Consists of Mueller No. †60S or *60CS complete with skin-tight flexible insulation. Barrel takes wire or banana plug. 2⅛″ long.

Stock No.	Mfr's. Type	Color	Construction	NET EACH	10 for	100 for
28F533	63	Black	Cadmium Ptd. Steel	.19	1.30	11.00
28F534	63	Red	Cadmium Ptd. Steel	.19	1.30	11.00
28F535	63C	Black	Solid Copper	.22	1.50	13.00
28F536	63C	Red	Solid Copper	.22	1.50	13.00

MICRO-GATOR CLIPS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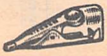
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Designed for printed circuits, tight spots, and crowded tiny terminals. Tip is no bigger than the head of a pin yet will stand up straight on the smallest terminals. Uses No. 20 or smaller wire. Length, 1 3/32″. Jaw spread, 7/32″. Tips, 1/32″ across. Shpg. wt., ¼ lb. per 100.

Stk. No.	Type	Description	Fig.	NET	10 for	100 for
28F496	34	Cad. Plated Steel	M	.06	.40	3.40
28F497	34C	Copper	M	.07	.50	4.30
28F498	36	Blk. Insul. for above	N	.05	.30	2.50
28F499	36	Red Insul. for above	N	.05	.30	2.50

POMONA PATCH CORDS, LEADS AND PLUGS

PECO STACK-UP PATCH CORDS, TEST AND CONNECTING LEADS

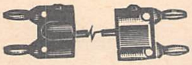


Fig. A

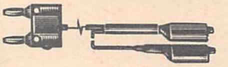


Fig. B

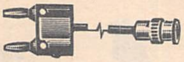
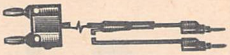


Fig. C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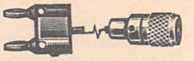


Fig.E

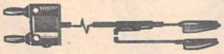


Fig. F

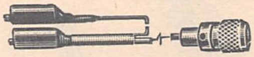


Fig. G

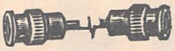


Fig. H

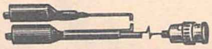


Fig. J

¾" double banana plug cabled to a variety of plugs, connectors, clips and tips as indicated below. The double banana plug permits parallel multiple stacking and has a clearly marked ground connection. Color of plug body matches cable color, av. wt. 5 oz. * Two conductor twisted 18 ga. (65x36) wire. Vinyl jacket and insulation. Nom. cap. 30 mmf/ft. **Shielded microphone cable. Polyethylene insulation. Vinyl jacket. Nom. cap. 25 mmf/ft. †Coaxial shielded cable. Polyethylene insulation. Vinyl jacket. Nom. cap. 28.5 mmf/ft. RG58C/U.

WITH DOUBLE PLUGS EACH END—Fig. A

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F801	2BA-36*	36"	4.85	4.37	4.13	3.40
34F803	2BB-36**	36"				
34F805	2BC-36†	36"				

WITH ALLIGATOR CLIPS—Fig. B

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F806	2BA-AL-24*	24"	5.85	5.27	4.97	4.10
34F807	2BA-AL-36*	36"				
34F809	2BB-AL-36**	36"				
34F811	2BC-AL-36†	36"				

WITH UG88C/U MALE BNC CONNECTOR—Fig. C

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F813	2BB-BNC-36**	36"	5.85	5.27	4.97	4.10
34F815	2BC-BNC-36†	36"	5.85	5.27	4.97	4.10

WITH PHONE TIP PLUGS—Fig. D

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F821	2BC-PP-36†	36"	7.50	6.75	6.38	5.25

WITH MINIGATOR CLIPS—Fig. F

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F822	2BA-MG-24*	24"	5.85	5.27	4.97	4.10
34F823	2BA-MG-36*	36"				
34F824	2BB-MG-24**	24"				
34F825	2BB-MG-36**	36"				
34F826	2BC-MG-24†	24"				
34F827	2BC-MG-36†	36"				

WITH PL259 MALE UHF CONNECTOR—Fig. E

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F831	2BC-UHF-36†	36"	5.85	5.27	4.97	4.10

ALLIGATOR CLIPS TO PL259 UHF CONNECTOR—Fig. G

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F835	AL-C-UHF-36†	36"	5.85	5.27	4.97	4.10

UG88C/U MALE BNC CONNECTOR BOTH ENDS—Fig. H

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F842	BNC-C-24†	24"	5.85	5.27	4.97	4.10
34F843	BNC-C-36†	36"	5.85	5.27	4.97	4.10

ALLIGATOR CLIPS TO UG88U/C MALE BNC CONNECTOR—Fig. J

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F839	AL-C-BNC-36†	36"	5.85	5.27	4.97	4.10

● *NEW* SOCKET SAVERS

SS-7

SS-9

SS-8

Peco test socket tube adapters are ideal for making measurements of voltage, resistance, audio and video without tracing complicated circuits from the bottom of the chassis. Extended test tabs for easy use with either alligator clips or test probes. Low loss Mica filled molded phenolic construction. Meets MIL-M-14, MFE. Power factor less than .010 at 10Mc. High insulation resistance of 500,000 ohms at 40% R.H. at 24°C. Distributed capacity 1 mmfd. High voltage operation up to 1700 volts AC/DC. Shpg. wt., 3 oz.

7 prong miniature SS-7		9 prong miniature SS-9		8 pin octal SS-8	
Stk. No.	NET	Stk. No.	NET	Stk. No.	NET
34F861	1.75	34F862	1.75	34F863	1.75

● *NEW* BREADBOARD SURFACE MOUNTED SOCKETS

XS-7

XS-9

XS-8

Useful for experimental circuit design, portable and enclosed units. Plug in and packaged assembly. An insulated base prevents connection from shorting to the chassis. Eliminates double chassis design. Circuits may be wired in enclosed unit, base connections are numbered for easy identification. Phosphor bronze spring contacts. Standard centers for mounting. 7 or 9 pin sockets may be mounted either in the center or on the side, 8 pin octal is mounted on the sides. Small mounting holes permit re-use of experimental chassis. Shpg. wt., 2 oz.

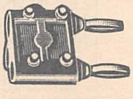
7 pin miniature XS-7		9 pin miniature XS-9		8 pin octal XS-8	
Stk. No.	NET	Stk. No.	NET	Stk. No.	NET
34F864	.49	34F865	.57	34F866	.57

¾" MOLDED DOUBLE PLUG STACK-UP ACCESSORIES

Model MDP. Enables user to attach a cable of his choice to the unit. Built in cable guide acts as a strain relief. Internal set screws for cable connection. Has .171" dia. stack up connections. 15A cont., 30A int. Working V.: 5000 VDC. Cap.: 0.8 mmF at 1 mc.

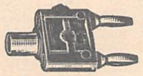
Model MDP-S. Has same features as Model MDP except it has an internal solder bonded shorting bar.

Stock No.	Model	Color	1-24	25-49	50-99	100-249
34F856	MDP	Red	.75	.68	.64	.53
34F857	MDP	Black	.75	.68	.64	.53
34F858	MDP-S	Cream	.95	.86	.81	.67



MODEL MDP-X

4 Terminal Isolation Plug suitable for design of filters, pads and networks.



MODEL 2B-1269

BNC Receptacle Adapter. Adapts ¾" spaced jacks to BNC plug.

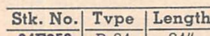
Stock No.	Model	Color	1-24	25-49	50-99	100-249
34F859	MDP-X	Red	3.25	2.93	2.76	2.28
34F860	2B-1269	Black	2.85	2.57	2.42	2.00

STACK-UP CONNECTING LEADS
(Banana Plugs Both Ends)

Model B. Fits all standard banana jacks. The molded polyethylene plug body is designed to permit stack-up and side connections. Extra flexible polyvinyl insulated wire 5KV (spark test). 18 gauge wire 65x36 stranding. Available in 24 and 36 inch lengths. Red or black. Shipping weight, 6 oz.

Stk. No.	Type	Length	Color	1-24	25-49	50-99	100-249
34F848	B-24	24"	Red	1.50	1.35	1.28	1.05
34F849	B-24	24"	Black				
34F850	B-36	36"	Red				
34F851	B-36	36"	Black				

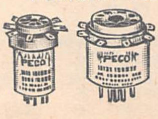
STACK-UP CONNECTING LEADS
(.080 Phone Tips Both Ends)



Model P. Fits all standard .080 tip jacks. One piece beryllium copper heat treated spring contact and tip. Plug body molded of polyethylene. Extra flexible polyvinyl insulated wire. 20 gauge, 41x36 stranding. Available in 24 and 36 inch lengths. Shpg. wt., 5 oz.

Stk. No.	Type	Length	Color	1-24	25-49	50-99	100-249
34F853	P-24	24"	Black	1.75	1.58	1.50	1.23
34F855	P-36	36"	Black				

POMONA TEST SOCKET ADAPTERS

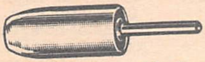


For measuring voltage, resistance, audio and video from the top of the chassis. Features extended test tabs for ease of use with test prods or alligator clips. Low R.F. loss, phenolic construction: power factor less than 0.010 at 10Mc. Insulation resistance exceeds 500,000 megohms. High voltage operation: voltage breakdown between elements exceeds 1700 volts AC-DC. Shpg. wt., 3 oz.

34F527. Miniature 7 pin. **NET**	1.65
34F545. 8 pin octal. **NET**	1.75
34F546. 9 pin miniature. **NET**	1.85
34F548. Duo-Ducal type. **NET**	1.95

CONNECTORS E. F. JOHNSON

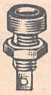
NYLON INSULATED SOLDERLESS TIP PLUG



Companion unit for the famous JOHNSON nylon tip jack. Durable molded nylon insulating sleeve designed so no metal surfaces are exposed when plug is inserted in jack. Quick, sure solderless connection of up to 16 gauge stranded wire. Withstands extremely high voltages and a wide temperature range. Current rating is 10 amperes. Standard .081 inch diameter pin fits all standard tip jacks. Dimensions: 1$\frac{7}{16}$'' long x $\frac{3}{8}$'' diameter. Comes in assortment of colors. Perfect for your needs. Wt., 2 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1513	105-301	White	.15	.14	12.70 Per 100	11.20 Per 100
39F1514	105-302	Red				
39F1515	105-303	Black				
39F1516	105-304	Dark Green				
39F1517	105-305	Light Blue				
39F1518	105-306	Orange				
39F1519	105-307	Yellow				
39F1520	105-308	Brown				
39F1521	105-309	Light Green				
39F1522	105-310	Dark Blue				
39F1523	105-311	Ivory				
39F1524	105-312	Violet				
39F1525	105-313	Gray				

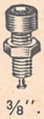
BANANA JACKS



Completely insulated banana jack. Retains low-loss characteristics through wide temp. range and high rel. humidity conditions. Voltage breakdown: 12,500 V. DC. For banana plugs of nom. .175" diam. Shpg. wt., 2 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1573	108-901	White	.12	.11	10.15 Per 100	9.00 Per 100
39F1574	108-902	Red				
39F1575	108-903	Black				
39F1576	108-904	Dark Green				
39F1577	108-905	Light Blue				
39F1578	108-906	Orange				
39F1579	108-907	Yellow				
39F1580	108-908	Brown				
39F1581	108-909	Light Green				
39F1582	109-910	Dark Blue				
39F1583	108-911	Ivory				
39F1584	108-912	Violet				
39F1585	108-913	Gray				

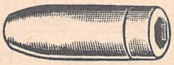
NYLON TIP JACKS



Molded of tough, low-loss nylon. Have high DC breakdown, 11,000 volts, and low capacity to panel, 2.0 mmf. Contacts recessed to avoid accidental shorting. Silver plated beryllium copper contacts. Mating pin, .081'' diameter. Mtg. hole req. $\frac{17}{32}$''. Head diam. $\frac{3}{8}$''. Body threaded $\frac{1}{4}$''-32. Wt., 1 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F878	105-601	White	.20	.18	16.90 Per 100	14.95 Per 100
39F879	105-602	Red				
39F880	105-603	Black				
39F881	105-604	Green				
39F882	105-606	Orange				
39F883	105-607	Yellow				
39F884	105-608	Brown				
39F885	105-610	Blue				
39F886	105-611	Ivory				
39F1558	105-612	Violet				
39F1559	105-613	Gray				

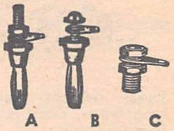
NYLON JACKS AND SLEEVE ASSEMBLIES



Nylon tip jack equipped with an inside threaded molded nylon insulating sleeve. Shpg. wt., 3 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1500	105-701	White	.20	.18	16.90 Per 100	14.95 Per 100
39F1501	105-702	Red				
39F1502	105-703	Black				
39F1503	105-704	Dark Green				
39F1504	105-705	Light Blue				
39F1505	105-706	Orange				
39F1506	105-707	Yellow				
39F1507	105-708	Brown				
39F1508	105-709	Light Green				
39F1509	105-710	Dark Blue				
39F1510	105-711	Ivory				
39F1511	105-712	Violet				
39F1512	105-713	Gray				

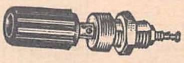
BANANA PLUGS AND JACKS



Complete selection. Banana plugs have nickel silver springs. Jacks are nickeled brass. Type 108-740 is $\frac{5}{8}$'' long. 108-760 is 1'' long. Studs extend full length of sleeves for added support. With nuts and lugs. Shpg. wt., 2 oz.

No.	Type	Fig.	Descriptions	1-49	50-99	100-499 Per 100	500-up Per 100
39F888	108-750	A	Plug, $\frac{3}{8}$'' stud	.13	.12	11.00	9.75
39F889	108-750-2	A	Plug, $\frac{3}{4}$'' stud	.14	.13	11.85	10.50
39F890	108-753	B	Plug, 6-32 screw	.14	.13	11.85	10.50
39F891	108-770	A	Jumbo type plug	.30	.28	25.40	22.45
39F892	108-771	B	Jumbo type plug	.34	.31	28.75	25.45
39F893	108-740	C	Standard jack	.12	.11	10.15	9.00
39F894	108-760	C	Jumbo jack	.31	.29	26.22	23.20

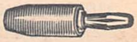
NYLON SIX-WAY BINDING POST



Compact, completely insulated, pre-assembled 6-way binding post. Molded nylon body. Silver-plated brass shank. Current capacity 15 amps. Voltage breakdown 8000 V DC. Single $\frac{5}{16}$''-32 nut furnished for mounting — no auxiliary hardware needed. Shpg. wt., 3 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1545	111-101	White	.30	.28	25.40 Per 100	22.45 Per 100
39F1546	111-102	Red				
39F1547	111-103	Black				
39F1548	111-104	Dark Green				
39F1549	111-105	Light Blue				
39F1550	111-106	Orange				
39F1551	111-107	Yellow				
39F1552	111-108	Brown				
39F1553	111-109	Light Green				
39F1554	111-110	Dark Blue				
39F1555	111-111	Ivory				
39F1556	111-112	Violet				
39F1557	111-113	Gray				

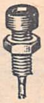
INSULATED BANANA PLUGS



Compact high voltage insulated plug for a wide variety of applications. Easy solderless connection of up to 16 gauge stranded wire. Nylon insulating sleeve retains strength and low loss characteristics over a wide range of temperatures and withstands high voltages. Shpg. wt., 3 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1530	108-301	White	.19	.18	16.20 Per 100	14.30 Per 100
39F1531	108-302	Red				
39F1532	108-303	Black				
39F1533	108-304	Dark Green				
39F1534	108-305	Light Blue				
39F1535	108-306	Orange				
39F1536	108-307	Yellow				
39F1537	108-308	Brown				
39F1538	108-309	Light Green				
39F1539	108-310	Dark Blue				
39F1540	108-311	Ivory				
39F1541	108-312	Violet				
39F1542	108-313	Gray				

LOW COST NYLON TIP JACKS



Low cost nylon tip jacks with formed silver-plated phosphor bronze contact. Current rating: 10 amps. Voltage breakdown: 9000 volts DC; capacity to $\frac{1}{8}$'' panel, 2.0 mmf $\frac{1}{4}$''-32 nut furnished; mounts in $\frac{17}{64}$'' hole. Shpg. wt., 2 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1560	105-801	White	.13	.12	11.00 Per 100	9.75 Per 100
39F1561	105-802	Red				
39F1562	105-803	Black				
39F1563	105-804	Dark Green				
39F1564	105-805	Light Blue				
39F1565	105-806	Orange				
39F1566	105-807	Yellow				
39F1567	105-808	Brown				
39F1568	105-809	Light Green				
39F1569	105-810	Dark Blue				
39F1570	105-811	Ivory				
39F1571	105-812	Violet				
39F1572	105-813	Gray				

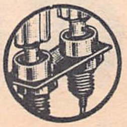
ETCHED ALUMINUM MOUNTING PLATE

Type 111-20. Pre-punched, etched aluminum mounting plate permits simple, accurate and fast mounting of either two nylon binding posts, or two nylon banana jacks in $\frac{21}{64}$'' diameter holes on exact $\frac{3}{4}$'' centers.

Shipping weight, 1 oz.

39F1526. NET EACH .... .02

100-499, per 100..............**1.70** **500-up, per 100**..............**1.50**



E. F. JOHNSON ELECTRICAL ACCESSORIES

METAL-CLAD NYLON TIP JACKS

Shock-proof nylon and metal construction. Nickel-plated machined brass jacket protects nylon body—assures positive fastening to mounting surface. Current rating: 10 amperes, internal silver-plated contact recessed in head—accommodates tip plugs of nominal .081'' diameter. ¼''-32 nut furnished. Mounts in 1⁷⁄₆₄'' diameter hole. Capacity to ⅛" metal is 3.8 Mmf. Variations of two available grades listed below. Av. shpg. wt., 3 oz.

STANDARD TYPE

These low cost metal-clad jacks have nylon tips for extremely long wear. Each is provided with formed silver-plated phosphor-bronze contact to insure optimal performance. Voltage breakdown is 7,000 volts DC.

MILITARY TYPE

Military type designed to comply with MS-16108 or MIL-STD-242A. Heavy nickel plated brass jacket. High insulation resistance of nylon body. Copper contact, silver-plated tin-dipped terminal end. Voltage breakdown: 8,000 volts DC.

	STANDARD TYPE						MILITARY TYPE					
Color	Stk. No.	Mfg. No.	1-49	50-99	100-499 per C	500-999 per C	Stk. No.	Mfg. No.	1-49	50-99	100-499 per C	500-999 per C
White	39F1700	105-251-1	.17	.16	14.40	12.70	39F1726	105-201-200	.26	.24	22.00	19.45
Red	39F1701	105-252-1					39F1727	105-202-200				
Black	39F1702	105-253-1					39F1728	105-203-200				
Dk. Green	39F1703	105-254-1					39F1729	105-204-200				
Lt. Blue	39F1704	105-255-1					39F1730	105-205-200				
Orange	39F1705	105-256-1					39F1731	105-206-200				
Yellow	39F1706	105-257-1					39F1732	105-207-200				
Brown	39F1707	105-258-1					39F1733	105-208-200				
Lt. Green	39F1708	105-259-1					39F1734	105-209-200				
Dk. Blue	39F1709	105-260-1					39F1735	105-210-200				
Ivory	39F1710	105-261-1					39F1736	105-211-200				
Violet	39F1711	105-262-1					39F1737	105-212-200				
Grey	39F1712	105-263-1					39F1738	105-213-200				

SOCKETS AND CAPACITORS

GRID BY-PASS CAPACITORS

Type 124-113-1. 1450 mmf circular silvered-mica screen grid by-pass capacitor. Dielectric strength tested at 1000 volts DC. MIL-C-10950A. Low inductance silver plated beryllium copper screen grid contact fingers are heat treated. Shpg. wt. 4 oz.

39F1527. 1-9 .... 5.00
10-49 .... 4.41

LIGHTWEIGHT BASIC SOCKET

Type 124-114-1. Insulated cathode terminals. Mounts below chassis through 1²¹⁄₃₂'' dia. hole.

39F1528. 1-9 .... 5.65
10-49 .... 4.98

BAYONET SOCKETS

Type 123-210-1. Porcelain base socket for tubes with 4 prong "UX" base. Has phosphor bronze contacts, aluminum shell. Takes 852, 860, 866 tubes. etc. HV spacing between contacts and shell. 2 mtg. holes, 2⁵⁄₁₆'' between ctrs. Shpg. wt., 10 oz.

38F756. 1-9.................1.45. 10-49.................1.34
50-99 ....1.12.

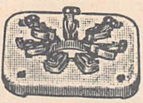
Type 123-211-1. Porcelain base socket for "jumbo" 4-pin tubes. Takes 211, 872, etc. 2¹³⁄₁₆'' mtg. ctrs. Wt., 1 lb.

38F757. 1-9.................1.95. 10-49.................1.80
50-99 ....1.51.

Type 123-209-1. Porcelain base. Top, sides glazed. For med. 4 pin tubes A4-10. 2⁵⁄₁₆'' mtg. ctrs. Wt., 10 oz.

38F762. 1-9.................1.50. 10-49.................1.39
50-99 ....1.16.

JUMBO STEATITE SOCKETS



Type 122-237-1. Perfect for transmitting tubes with "giant" 7-pin base. Takes 813, 8001, 3D22, 4E27, HK257, etc. 2⅝'' sq. 4 mtg. holes, 1⅞'' between ctrs. Wt., ½ lb.

38F770. 1-9.................1.20. 10-49.................1.11
50-99 ....93c.

Type 122-247-1. For 7-pin tubes. Aluminum shield. Ceramic base, 2⅝'' sq. Wt., ½ lb. Can be used with 7094 tube.

38F771. 1-9.................1.45. 10-49.................1.34
50-99 ....1.12.

Type 122-248-1. As above, 2⅜" sq.

38F776. 1-9.................1.30. 10-49.................1.20
50-99 ....1.01.

Type 122-275-1. Giant 5-pin wafer socket for tubes such as 4-125A, 4-250A and RK-48. .190" mtg. holes on 2¼" sq. Shipping wt., ½ lb

38F778. 1-9.................1.90. 10-49.................1.76
50-99 ....1.47.

SOCKET FOR 4X150A, 4X150D, 4X250B, & 4X250F.

For ultra high freq. use with high power tubes. Two section construction. One for insulation, one for strength. *With by pass capacitor.

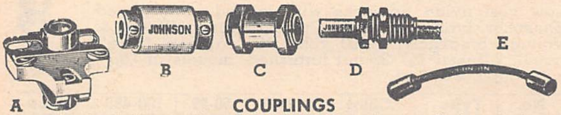
Stk. No.	Type	Desc.	1-9	10-49	50-99
38F763	124-109-1	1²¹⁄₃₂'' Mtg.	5.00	4.41	....
38F764	124-110-1	2¼'' Mtg.*	11.50	10.15	....
38F765	124-112-1	2¼'', grd. shell*	12.00	10.58	....
38F766	124-107-1	Mtg. Saddle	5.50	4.85	....
38F767	124-108-1	Saddle, grd.	5.85	5.15	....
38F768	124-111-1	Steatite Chimney	.40	.37	.34

STANDARD STEATITE WAFERS

For receiving and low-power transmitting tubes. Cadmium plated contacts reinforced with plated steel springs and recessed in wafer. Size, 2⁵⁄₁₆x 1¹¹⁄₁₆''. Mtg. ctrs. 1¹³⁄₁₆ to 1¹⁵⁄₁₆''. 4 oz.

Stk. No.	Type	Contacts	1-9	10-49	50-99
38F780	122-224-1	4	.69	.64	.54
38F781	122-225-1	5	.76	.70	.59
38F782	122-226-1	6	.94	.87	.73
38F783	122-227-1	7 Med.	.90	.83	.70
38F785	122-228-1	Octal	.97	.90	.75

COUPLINGS AND SHAFTS

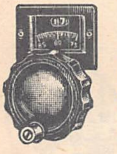


COUPLINGS

Provide flexibility without backlash. Steatite insulation except * bakelite, for low voltage. Wt., 2 oz.

Stk. No.	Type	Fig.	Use	1-9	10-49	50-99
26F240	104-250	A	For ¼'' shaft	.88	.81	.68
26F241	104-251-1	A	For ⅜'' shaft	1.40	1.30	1.09
26F242	104-252	B	Solid ¼''	.80	.74	.62
26F243	104-258	C	¼'' clamp	.33	.31	.26
26F249	104-264	A*	For ¼'' shaft	.65	.60	.50

COUNTER DIAL



Vernier dial calibrated 0-100 over 360°, making possible accurate return to any pre-determined setting. Built-in dial lock. Furnished with mounting template for easy installation. Shpg. Wt. 1 lb.

26F033. 116-208-1. 1-9..............9.44 10-49..............8.33

26F034. 116-201. Attractive black phenolic escutcheon as shown on above dial. Opening 1¼x⅞". With screws. 1-9...... .65 10-49...... .60 50-99...... .50

PANEL BEARINGS FOR ¼" SHAFTS

Nickel plated brass for ¼'' shaft and up to ⅜'' panels. Also 3'' and 6'' nickel plated brass shafts. Shpg. wt., 2 oz.

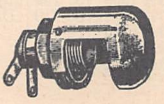
Stk. No.	Type	Fig.	Length	1-49	50-99	100-499 per C
26F244	115-255	D	Bearing only	.19	.18	14.75
26F245	115-256	D	3''	.37	.34	28.70
26F246	115-256-2	D	6''	.50	.46	38.75

¼" FLEXIBLE SHAFTS

Phosphor bronze, non rusting. Permit out of line or up to 90° angular control. 3 oz.

26F248	115-254	E	6''	.75	.71	59.70
26F247	115-253	E	3''	.50	.46	38.75

PANEL LIGHT

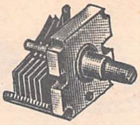


For front panel illumination. Has polished nickel plated hood. Rotates to any position. Fits ½" mounting hole. T3¼ or G3⅓ type bulbs. 3 oz.

Stock No.	Type	Base	1-9	10-49	50-99
25F320	147-330	Screw	.82	.76	.64
25F321	147-329	Bayonet	.91	.84	.71

CAPACITORS E. F. JOHNSON

TYPE "L" CAPACITORS



The rotor bearing and stator support rods are soldered directly to the Steatite end frames, making the unit virtually vibration-proof. Threaded ⅜-32, mounting nut provided. Plate spacing .030″. Heavy brass soldered plates and large diameter tie rods provide great rigidity. Plating is heavy nickel. Mounting posts soldered to end frame are available on special order. Removable chassis mounting brackets can be used to mount auxiliary equipment. Shaft diameter: .250 shaft length: 25/32″. Size: 1⅜w.x1⅜h.xlength. A special slit sleeve tension bearing and silver plated beryllium copper contact provide constant torque and smooth, silent capacity variation. Av. shpg. wt. 6 oz.

Single Section—Single End Plate

Stk. No.	Mfr. No.	Range	Lgth.	1-9	10-49	50-99
41F176	10L15	2.8-11	¾″	1.60	1.48	1.24
41F177	25L15	3.5-27	61/64″	1.70	1.57	1.32
41F178	50L15	4.6-51	1¼″	1.90	1.76	1.47
41F179	75L15	5.7-75	1 9/16″	2.10	1.94	1.63

Single Section—Double End Plate

Stk. No.	Mfr. No.	Range	Lgth.	1-9	10-49	50-99
41F180	100L15	6.8-99	2 1/32″	3.30	3.05	2.56
41F181	200L15	11.6-202	2 21/64″	4.20	3.88	3.25

Butterfly

Stk. No.	Mfr. No.	Range	Lgth.	1-9	10-49	50-99
41F182	10LB15	2.8-10.5	55/64″	1.95	1.80	1.51
41F183	25LB15	4.3-26	1¼″	2.25	2.08	1.74
41F184	50LB15	6.8-51	1¾″	2.75	2.54	2.13

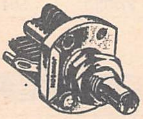
Differential

Stk. No.	Mfr. No.	Range	Lgth.	1-9	10-49	50-99
41F185	10LA15	2.8-11	¾″	2.00	1.85	1.55
41F186	25LA15	3.5-27	61/64″	2.20	2.03	1.70
41F187	50LA15	4.6-51	1¼″	2.50	2.31	1.94

Dual Section

Stk. No.	Mfr. No.	Range	Lgth.	1-9	10-49	50-99
41F188	25LD15	5-27	1⅝″	3.60	3.33	2.79
41F189	50LD15	6.5-51	2 15/64″	4.05	3.75	3.14
41F190	100LD15	9.8-99	3 7/16″	4.95	4.58	3.84

TYPE "M"
JOHNSON MINIATURES



With .188″ dia. x ½″ slotted shaft. ¼″ mounting bushing. Steatite end frames. ¾″Hx⅝″W. 4 oz.

SINGLE TYPE

Stk. No.	Type	MMFD	Depth	1-9	10-49	50-99
41F200	5M11	1.5- 5.0	45/64″	1.00	.92	.77
41F201	9M11	1.8- 8.7	13/16″	1.05	.97	.81
41F202	15M11	2.3-14.2	1″	1.20	1.11	.93
41F203	20M11	2.7-19.6	1 11/64″	1.35	1.25	1.05

DIFFERENTIAL TYPE

Stk. No.	Type	MMFD	Depth	1-9	10-49	50-99
41F204	6MA11	1.5- 5.0	45/64″	1.45	1.34	1.12
41F205	9MA11	1.8- 8.7	13/16″	1.65	1.53	1.28
41F206	15MA11	2.3-14.2	1″	1.85	1.71	1.43
41F207	19MA11	2.7-19.6	1 11/64″	2.10	1.94	1.63

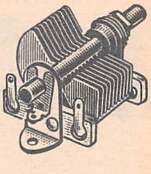
BUTTERFLY TYPE

Stk. No.	Type	MMFD	Depth	1-9	10-49	50-99
41F208	3MB11	1.5- 3.1	45/64″	1.40	1.29	1.08
41F209	5MB11	1.8- 5.1	13/16″	1.60	1.48	1.24
41F210	9MB11	2.2- 8.0	1″	1.80	1.66	1.39
41F211	11MB11	2.7-10.8	1 11/64″	2.00	1.85	1.55

MAKE NEWARK YOUR 1-POINT SOURCE FOR ALL ELECTRONIC COMPONENTS

WHETHER ORDERING IN QUANTITY FOR PRODUCTION OR IN SMALL LOTS FOR SPECIALIZED USE, MAKE NEWARK YOUR HEADQUARTERS FOR EVERY ELECTRONIC COMPONENT. NEWARK SAVES YOU TIME AND MONEY—GET THE EXACT PART YOU NEED FROM AN INVENTORY OF OVER 70,000 ITEMS.

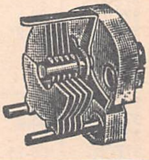
TYPE "R" CAPACITORS



Featuring extra heavy steatite support insulators and .023″ thick brass plates. All metal parts are heavy nickel plated for corrosion resistance. Plate spacing .024″. bearing threaded ⅜″-32. Heavy brass end frames provide superior rigidity. Double bearing construction and silver plated beryllium copper wiring contacts provide smooth, reliable performance. Av. shp. 6 oz.

Stk. No.	Mfg. No.	MMFD	Lgth.	1-9	10-49	50-99
41F191	20R12	5-20	1 7/32″	2.25	2.08	1.74
41F192	35R12	6-35	1 7/32″	2.35	2.17	1.82
41F193	50R12	6.5-50	1 7/32″	2.45	2.27	1.90
41F194	75R12	8-80	1 7/32″	2.60	2.40	2.01
41F195	100R12	8.5-102	1 13/32″	2.75	2.54	2.13
41F196	140R12	13.5-140	1 19/32″	2.95	2.73	2.29

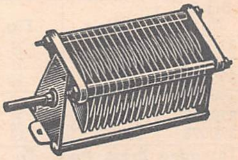
TYPE "K" CAPACITORS



Features DC200 impregnated steatite end frames, slotted stator contacts and extra rigid soldered plate construction. Square mounting studs tapped 4-40 on 21/32″ centers. Plates are brass, nickel plated. Range is in mmf per section. Plate spacing is .015″. Peak voltage rating 1,000 volts. Size: 15/16w.x1 7/32h. Av. shpg. 4 oz.

Stk. No.	Mfg. No.	MMFD	Lgth.	1-9	10-49	50-99
41F168	10K10	2.9-10	⅞″	1.25	1.16	.97
41F169	25K10	3.7-25	1″	1.35	1.25	1.05
41F170	50K10	4.6-50	1 3/16″	1.55	1.43	1.20
41F171	75K10	5.5-75	1⅜″	1.70	1.57	1.32
41F172	100K10	6.4-100	1⅝″	1.85	1.71	1.43

TYPE "E" CAPACITORS



Aluminum plates .032″ thick with rounded edges — stainless steel shafts — heavy phosphor bronze contact springs—center contact on duals—large ¼″ tie rods. Panel or chassis mounting. Shaft dia. ¼″. Shaft length: ⅝″; Size: 2 19/32x 2⅝″. Av. shpg. wt. 1 lb.

SINGLE SECTION

Spacing .075″ except * .045″ and † .125″

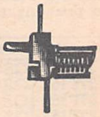
Stk. No.	Type	MMFD	Space	Lgth.	1-9	10-49
41F129	*250E20	12-244	.045″	3 7/32″	5.65	4.99
41F130	*350E20	15-353	.045″	3 31/32″	6.46	5.70
41F134	100E30	11-100	.075″	3″	5.06	4.46
41F135	150E30	14-154	.075″	3⅞″	5.74	5.06
41F136	250E30	20-251	.075″	5⅜″	7.00	6.19
41F137	†35E45	9-38	.125″	2¾″	4.59	4.05
41F138	†50E45	11-53	.125″	3 13/32″	4.93	4.35
41F139	†70E45	13-74	.125″	4 1/32″	5.35	4.72
41F140	†100E45	16-101	.125″	4 31/32″	5.86	5.17
41F141	†150E45	20-145	.125″	6 17/32″	6.67	5.89
41F142	†250E45	32-241	.125″	10″	8.92	7.87

DUAL SECTION

Spacing .075″ except *.125″

41F146	150ED30	13-153	.075″	7½″	9.65	8.51
41F147	200ED30	15-196	.075″	8 13/16″	11.26	9.94
41F148	*50ED45	10-52	.125″	6 9/32″	7.61	6.71
41F149	*70ED45	12-74	.125″	7⅞″	8.67	7.65
41F150	*100ED45	15-100	.125″	9 23/32″	9.86	8.70

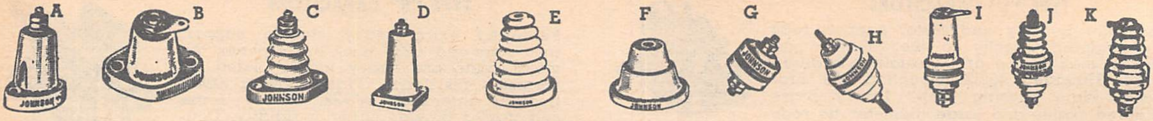
SUB-MINIATURE TYPE "U" VARIABLE CAPACITORS



This unique sub-miniature variable capacitor requires less than 0.2 square inch for chassis or panel mounting. Rotor and stator are precision machined from one piece of solid brass, providing outstanding mechanical stability and uniformity. All metal parts are silver plated . . . ceramic is steatite Grade L-4 or better. Exceptionally uniform delta C and voltage characteristics high "Q", high torque to mass ratio. Has extra low temperature coefficient. Types 189-1 to 189-6 air gap is .010″; Types 189-26 to 189-28 air gap is .016″. Volt peak breakdown of types 189-1 to 189-6 is 850; 1300 volt peak breakdown for types 189-26 to 189-28. .734h.x.433w. Tab mounted. Shaft diameter .086 two holes. Shaft width ⅜″. Av. shpg. wt. 2 oz.

Stk. No.	Type	Nominal Cap. MMFD.	Length	1-9	10-49	50-99
41F081	189-1	Max. 3.5-Min. 1.2	29/64″	.50	.46	.42
41F082	189-2	Max. 5.4-Min. 1.3	½″	.52	.48	.44
41F083	189-3	Max. 7.3-Min. 1.4	35/64″	.54	.50	.46
41F084	189-4	Max. 9.1-Min. 1.5	19/32″	.56	.52	.47
41F085	189-5	Max. 11 -Min. 1.7	⅝″	.58	.54	.49
41F086	189-6	Max. 13 -Min. 1.8	43/64″	.60	.56	.51
41F088	189-27	Max. 6.7-Min. 1.6	⅝″	.85	.79	.72

INSULATORS



E. F. JOHNSON INSULATORS

STAND-OFF INSULATORS

135 Series Glaze-groove and smooth molded RF insulators. Nickel plated brass hardware. Types 65, 66 and 67 have drawn aluminum bases. All are threaded except * which have type 74 jack, and † which have type 76 jack. Hardware supplied. Average shipping weight, 1 pound.

Stock No.	Type	Fig.	Body Hgt.	Net
37F050	20	A	1 9/16"	.32
37F051	20-2*	B	1 9/16"	.35
37F052	22	A	1"	.20
37F053	22-2*	B	1"	.26
37F054	24	A	5/8"	.16
37F055	60	C	4½"	1.20
37F056	62	C	2¾"	.62
37F057	65	C	1⅜"	.31
37F058	65-2*	C	1⅜"	.39
37F059	66	D	2¾"	.99
37F060	66-2†	D	2¾"	.98
37F061	67	D	4½"	1.25
37F062	67-2†	D	4½"	1.50

LEAD-IN BUSHINGS

Ideal for use as power supply and high voltage leads. Have many applications in transmitter and antenna installations. All are steatite except * white glaze porcelain. 50, 51, 52, 55 have nickeled brass rod and nuts. Average shipping weight, 8 ounces.

Stock No.	Type	Fig.	Top Hgt.	Panel Hole	Net
37F071	135-50	H	½"	½"	.40
37F072	135-51	H	13/16"	⅞"	.57
37F073	135-52	H	1⅛"	1¼"	.89
37F074	135-53*	F	1¾"	1⅞"	.35
37F075	135-54*	E	4"	2¾"	1.10
37F076	135-55	G	¼"	½"	.31

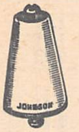
Threaded Brass Rods. For use with types 53 and 54 bushings above. Complete with 4 washers and 4 nuts with ¼"-20 thread. Average shipping weight, 2 ounces.

Stock No.	Type	Description	1-49	50-99	100-499 Per 100
37F095	115-240	8" threaded rod	.57	.53	44.20
37F096	115-241	10" threaded rod	.71	.66	55.03
37F099	135-91	Flange for type 54	.84	.78	65.10

FEED THRU-PANEL INSULATORS

135 Series. Have high mechanical strength with long leakage paths. White glaze porcelain except † steatite. All are threaded, except * which have type 74 jacks, and ‡ which have type 76 jacks. All hardware supplied. Shipping weight, 12 ounces.

Stock No.	Type	Fig.	Top Hgt.	Panel Hole	Net
37F081	40†	I	1¼"	½"	.42
37F082	40-2†*	I	1¼"	½"	.53
37F083	42†	I	⅞"	7/16"	.42
37F084	42-2†*	I	⅞"	7/16"	.50
37F085	44†	I	⅝"	5/16"	.31
37F086	45	J	1⅜"	½"	.59
37F087	45-2*	K	1⅜"	½"	.69
37F088	46	J	2¾"	¾"	1.50
37F090	47	J	4½"	1"	2.75



STEATITE CONE INSULATORS

135 Series. Recommended for use at high frequencies. Low moisture absorption. Threads tapped directly into steatite. Complete with screws, brass washers and cushion washer. Average shpg. wt., 5 oz.

Stock No.	Type	Size	Thread	Net	50-99	100-499 Per 100
37F063	500	⅝"	6-32	.23	.21	17.80
37F064	501	1"	8-32	.31	.29	24.00
37F065	502	1½"	8-32	.51	.47	39.50
37F066	503	2"	10-32	.77	.66	55.00
37F067	504	3"	10-32	1.43	1.11	93.00

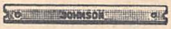
ANTENNA INSULATORS

JOHNSON 104

All are wet-process porcelain, with white glazing and 800 lbs. breaking strength except * dry process, 400 lbs. breaking.

Stock No.	Type	Size	Wt.	1-49	50-99	100-499 Per 100
37F068	136-104*	4x⅝" sq.	4 oz.	.26	.24	20.15
37F069	136-107	7x1" dia.	10 oz.	1.18	1.09	91.45
37F070	136-112	12x1" dia.	1¼ lbs.	1.70	1.60	146.90

FEEDER SPREADERS

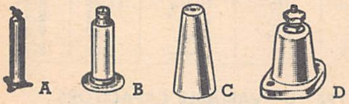


Unglazed porcelain bars, ⅜x½", treated with Silicone to resist moisture. With No. 14 ga. wire, 2" size will provide a characteristic line impedance of approximately 500 ohms, 4" approx. 575 ohms, and 6" approx. 625 ohms. With No. 12 ga. wire, 2" approx. 475 ohms, 4" approx. 550 ohms, and 6" approx. 600 ohms. Shipping weight, 3 ounces.

Stock No.	Type	Length	1-49	50-99	100-499 Per 100
37F077	136-122	2"	.17	.16	13.15
37F078	136-124	4"	.24	.22	18.60
37F079	136-126	6"	.32	.30	24.80

NATIONAL

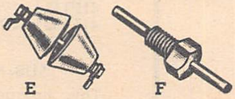
STAND-OFF INSULATORS



Molded steatite low-loss insulators glazed to prevent moisture absorption. Wt., 3 oz.

Stk. No.	Type	Fig.	Size	NET
37F150	GS-1	A	½x1 7/16"	.27
37F151	GS-2	A	½x2 15/16"	.35
37F152	GS-3	B	¾x2 13/16"	.69
37F153	GS-4	B	¾x4 13/16"	.86
37F154	GS-4A	B	¾x6 13/16"	1.20
37F155	GS-5	C	1¼"	.35
37F156	GS-6	C	2"	.48
37F157	GS-7	C	3"	.86
37F158	GS-8	D	1⅜"	.62
37F160	GS-10	C	¾"	10 for 1.04

FEED-THRU INSULATORS



Low-loss steatite. Includes threaded rods, nuts and washers. Type TPB has ¼"-28 threaded polystyrene bushing with removable conductor. All are sold in pairs, except *std. pkg. of 12. Shpg. wt., 8 oz.

Stk. No.	Type	Fig.	Mtg. Hole	Pair
37F161	XS-1	E	1"	.83
37F162	XS-2	E	1½"	.93
37F163	XS-3	E	2¾"	4.13
37F164	TPB*	F	¼"	per doz .86

CONSOLIDATED

ANTENNA INSULATORS

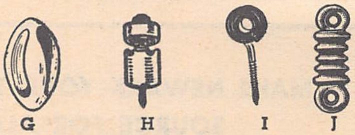


Fig. G. Low-loss white porcelain strain insulator. Overall size, 1¾x⅞" dia. Shipping wt., 2 oz.

37F140. EACH **7c**

10 for..........63c 100 for..........6.25

Fig. H. Popular standard nail knob. 1¾x 1⅛" diameter. For power and telephone lines. Shpg. wt., 4 oz.

37F141. EACH **5c**

10 for..........45c 100 for..........3.60

Fig. I. Eye wall insulator for lead-in and ground wires. Insulated insert. Steel screw eye. Shpg. wt., 2 oz.

37F142. 3" long. **EACH** **6c**

10 for..........55c 100 for..........5.25

37F143. 7" long. **EACH** 8c

10 for..........70c 100 for..........6.60

Fig. J. Glazed porcelain insulator, 2½" long. Sturdy ribbed construction. Has high mechanical strength. Wt., 2 oz.

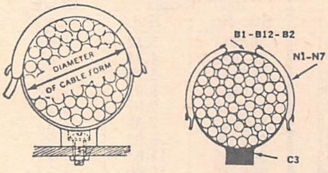
37F144. EACH **6c**

10 for..........55c 100 for..........5.00

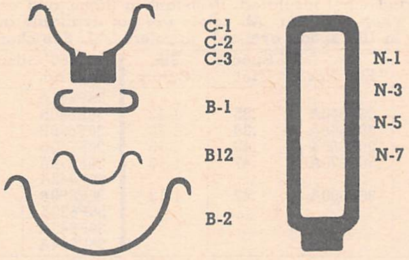
NEWARK MAINTAINS SEVEN GIANT WAREHOUSES TO INSURE FASTEST DELIVERY FROM STOCK. MAKE NEWARK YOUR ONE POINT SOURCE FOR ALL YOUR ELECTRONIC NEEDS.

WIRING ACCESSORIES ELECTROVERT INC.

"INSULOID" CRADLELIP WIRING SYSTEMS



Application of Cradle Clip Parts



- **MEETS MIL. SPEC. MIL-STD-202A**
- **PROVIDES HIGH SPEED WIRING SYSTEMS**
- **WIRE CHANGES ARE QUICK AND EASY**
- **SUBSTANTIALLY CUTS WIRING COSTS**

RECOMMENDED COMBINATIONS

Diameter of Cable Form in inches	Use For Supported Wiring Cradle		Use For Supported Wiring Clip	Use For Unsupported Wiring Binder	Use For Unsupported Wiring Clip
1/8"—5/16"	C0	+	N0	....	
1/4"—5/8"	C1		N1	B1	N1
1/2"—1 1/16"	C1		N3	B1	N5
1 1/16"—1 5/16"	C2		N3	B12	N3
1 5/16"—1 1/16"	C2		N5	B12	N5
1"—1 1/4"	C3		N3	B2	N3
1 1/4"—1 1/2"	C3		N5	B2	N5
1 1/2"—2"	C3		N7	B2	N7

The Insuloid Cradlelip Wiring System consists of Binders and Endless Extensible Clips for unsupported wiring and Cradles and Endless Extensible Clips for supported wiring. Both the Binders and Cradles are molded from special nylon (Zytel 105) and are virtually unbreakable. The Endless Extensible Clips are molded Neoprene which combines the right degree of toughness with the necessary flexibility to hold any type of cable securely and without damage. Temperature range of the system is approximately —76°F to +212°F. Wiring systems are in accordance with MIL-STD-202A. Methods of attaching Cradles to panels include: Conventional Bolt and Nut, Speed Drives, Drive-Rivets, and Special Cradle with Captive Nut.

Stk. No.	Type	Description	Size (IN.)	1-99	Per 100
30F300	C1	Cradle	.937 x .562	**.06**	**5.50**
30F301	C2	Cradle	1.375 x .750	**.07**	**6.20**
30F302	C3	Cradle	1.875 x 1.000	**.07**	**6.90**
30F303	C1-M	Cradle w/cap. nut	.937 x .562	**.12**	**11.10**
30F304	C2-M	Cradle w/cap. nut	1.375 x .750	**.10**	**9.50**
30F305	C3-M	Cradle w/cap. nut	1.875 x 1.000	**.11**	**10.50**
30F306	B1	Binders	.875 x .187	**.04**	**3.10**

Stk. No.	Type	Description	Size (IN.)	1-99	Per 100
30F307	B2	Binders	1.875 x .812	**.06**	**5.90**
30F308	N1	Neoprene clips	.500 x .937	**.03**	**2.10**
30F309	N3	Neoprene clips	1.000 x 1.000	**.03**	**3.00**
30F310	N5	Neoprene clips	1.750 x 1.000	**.04**	**3.60**
30F311	N7	Neoprene clips	2.562 x 1.000	**.05**	**4.20**
30F312	CO+NO	Min. cradle & clip	.500 x .335	**.08**	**7.40**
30F314	B12	Binders	.937 x .400	**.05**	**4.30**

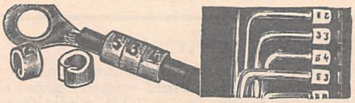
INSULOID CRADLECLIP HOOKER

For attaching Clips to Cradles and for attaching Clips to Binders.
30F313 NET.. **.15**
Free with orders of 500 pieces or more.

Let Newark Supply Your Electronic Equipment Needs — At Factory Competitive Prices

ELECTROVERT "BETA" MARKING SYSTEMS

- **Saves to 50% in installation time.**
- **Handles diameters from .045"-.460"**



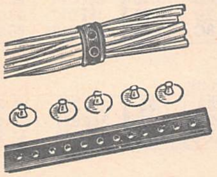
BETA Cable Markers permanently identify every wire or group of wires for instant recognition. Can be installed in seconds. Feature flexible "accordion" type backs for easy installation and sturdy gripping on wires. Made of durable P.V.C. material. Comply with military, civil, and trade associations. (J.I.C., MIL-E-5400B (ASG), MIL-E-4158A (USAF), etc.).

Please specify Letter (A-Z) or Numeral (0-9) desired when ordering. Minimum order is one package of 50 of any Letter or Numeral.

TYPE Z MARKERS—WHITE WITH BLACK MARKING

Stock No.	AWG Size	For Cable Diameter	Per Pkg. of 50
30F833	22	.045" - .065"	**.69**
30F834	20	.066" - .085"	**.69**
30F835	18	.086" - .115"	**.69**
30F820	16	.110" - .135"	**.69**
30F821	14	.130" - .160"	**.69**
30F822	12	.150" - .175"	**.69**
30F823	10	.170" - .195"	**.70**
30F824	9	.190" - .215"	**.72**
30F825	8	.210" - .250"	**.74**
30F826	7	.245" - .295"	**.84**
30F827	6	.290" - .360"	**.97**
30F828	4-1	.355" - .460"	**1.12**

INSULOID WIRE AND CABLE STRAPPING SYSTEM



- **Two simple components**
- **Lowest Cost**

High-grade PVC Strapping with holes conveniently spaced for easiest and fastest assembling. Nylon studs. Insuloid Strapping is 1/3 the cost of other wire and cable tying systems.

Type PVC/AV5. Width 5/16". Quantity: 75 foot coil. Wt. 10 1/2 ozs.
30F830. PVC/AV5. NET: 1 coil..**2.25**

Type PVC/AV8. Width 1/2". Quantity: 75 foot coil. Wt. 17 1/2 ozs.
30F831. Type PVC/AV8. NET: 1 coil **3.75**

Studs for above. Quantity: 1000 in a box.
30F832. AVS Studs. Weight 4 ozs. **NET:** 1 box..**5.00**

MAKE NEWARK YOUR 1-POINT SOURCE FOR ALL ELECTRONIC COMPONENTS

Whether ordering in quantity for production or in small lots for specialized use, make NEWARK your headquarters for every electronic component. NEWARK saves you time and money—get the exact part you need from an inventory of over 70,000 units!

BELDEN WIRE AND CABLE

NEWARK CARRIES
COMPLETE LINES

MIL-W-76B TYPE MW-VINYL 1000V-80C

Formerly type SRIR JAN-C-76. Tinned copper and vinyl insulated. Resistant to flame and ozone. Inert to most chemicals and solvents. Specify color when ordering. **All colors are not available in all sizes. *For tracer colors add .12 per 100 feet. All items in 100' spools available in colors 1-22. See chart below.**

Mfr. Type	MIL No.	AGW (stranding)	O.D.	25' Spools Stk. No.	25' Spools Net	Stk. Colors	100' Spools Stk. No.	100' Spools Net	1000' Spools Stk. No.	1000' Spools Net	Stock Colors*
8525	MW-C-24-(7)U	24(7x32)	.058	....	......	....	36F641A	.91	36F641	5.14	1-22
8530	MW-C-22-(1)U	22(solid)	.059	36F640A	.35	1-13	36F640B	.73	36F640	4.41	1-22
8524	MW-C-22-(7)U	22(7x30)	.064	36F660A	.38	1-13	36F660B	.91	36F660	5.73	1-22
8529	MW-C-20-(1)U	20(solid)	.066	36F650A	.43	1-13	36F650B	.94	36F650	5.29	1-22
8523	MW-C-20-(10)U	20(10x30)	.070	36F670A	.47	1-13	36F670B	1.03	36F670	7.01	1-22
8528	MW-C-18-(1)U	18(solid)	.074	....	......	....	36F642A	1.13	36F642	7.35	1-22
8522	MW-C-18-(16)U	18(16x30)	.080	36F690A	.47	1-13	36F690B	1.21	36F690	8.92	1-22
8521	MW-C-16-(26)U	16(26x30)	.098	....	......	....	36F632A	1.55	36F632	11.61	1-22
8520	MW-C-14-(41)U	14(41x30)	.111	....	......	....	36F643A	1.99	36F643	16.90	1-22
8527	MW-C-12-(65)U	12(65x30)	.130	....	......	....	36F644A	2.79	36F644	23.52	1-22

MIL-W-16878D TYPE B VINYL 600V-105C

Tinned copper, .010 vinyl insulation. Resistant to moisture and solvents. SPECIFY COLOR WHEN ORDERING. **All colors not available in all sizes. *For tracer colors add .12 per 100 feet.**

Mfr. Type	MIL Type	AGW& (strdg.)	O.D.	Stock Colors*	Stock No.	100 Ft.	Stock No.	1000 Ft.
8503	B-22	22(7x30)	.050	1-10, 14-22	36F593A	1.14	36F593	7.69
8502	B-20	20(7x28)	.058	1-10, 14-22	36F592A	1.18	36F592	9.11
8501	B-18	18(7x26)	.068	1-10, 14-22	36F591A	1.35	36F591	10.00
8500	B-16	16(19x29)	.077	1-10, 14-22	36F590A	1.62	36F590	12.74

MIL-W-16878D TYPE E TEFLON 600V-200C

Concentrically stranded silver coated copper hook up wire. Teflon insulated 600V-200C. MIL-W-16878D TYPE E. **Available only in colors 1-10.**

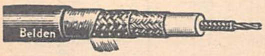
Mfr. Type	MIL. Type	AWG & (Stranding)	O.D."	Stock No.	25 Ft.	Stock No.	50 Ft.	Stock No.	100 Ft.	Stock No.	500 Ft.
8300	E-30	30(7x38)	.032	36F610C	1.86	36F610B	2.94	36F610A	5.14	36F610	21.31
8301	E-28	28(7x36)	.035	36F611C	1.86	36F611B	2.94	36F611A	5.39	36F611	22.05
8302	E-26	26(7x34)	.039	36F612C	1.86	36F612B	3.09	36F612A	5.88	36F612	22.41
8303	E-24	24(19x36)	.044	36F613C	2.06	36F613B	3.20	36F613A	6.27	36F613	25.72
8304	E-24	24(7x32)	.044	36F614C	2.01	36F614B	3.18	36F614A	5.88	36F614	24.25
8305	E-22	22(7x30)	.050	36F615C	2.20	36F615B	3.92	36F615A	7.35	36F615	29.04
8306	E-22	22(19x34)	.050	36F616C	2.35	36F616B	4.07	36F616A	7.35	36F616	30.87
8307	E-20	20(19x32)	.058	36F617C	2.60	36F617B	4.70	36F617A	8.82	36F617	36.75
8308	E-20	20(7x28)	.058	36F618C	2.65	36F618B	4.70	36F618A	8.82	36F618	36.75
8309	E-18	18(19x30)	.069	36F619C	3.09	36F619B	5.73	36F619A	10.58	36F619	45.94
8310	E-16	16(19x29)	.080	36F620C	4.07	36F620B	7.35	36F620A	13.21	36F620	59.53

COLOR CODING

First color in stripe combination is body color and second color is stripe. **Specify color when ordering. All colors not available in all types. *Tracer colors.**

1. Brown
2. Red
3. Orange
4. Yellow
5. Green
6. Light Blue
7. Violet
8. Gray
9. White
10. Black
11. Tan
12. Pink
13. Dark Blue
*14. White/Black
*15. White/Red
*16. White/Green
*17. White/Yellow
*18. White/Blue
*19. White/Brown
*20. White/Orange
*21. White/Gray
*22. White/Violet

RUBBER MICROPHONE AND SHIELDED POWER SUPPLY CABLES



Abrasion and impact resistant. Flexible, lies flat without kinking or looping. Recommended for all stage and studio use. All have tinned copper conductors, with cotton wrap and rubber insulation. Cabled with fillers, covered overall with rayon braid tinned copper shield and black rubber jacket. Quantities under 100 ft. available only in spool sizes listed. 8414 extra limp, shielded. 8428 has Neoprene heavy duty jacket. *Supplied on 250' spools.

Type	A.W.G. and Cond.	Mmf. Ft.	O.D.	Work. Volt.	Stk. No.	15 Ft.	Stk. No.	25 Ft.	Stk. No.	50 Ft.	Stk. No.	100 Ft.	Stk. No.	500 Ft.
8410	25-1	33	.245"	3000	36F010A	1.32	36F010B	2.06	36F010C	3.82	36F010D	7.20	36F010	33.81
8412	20-2	42	.268"	600	36F011A	1.50	36F011B	2.30	36F011C	4.21	36F011D	8.08	36F011	37.14
8414	20-2	45	.256"	600	....	....	....	....	36F009A	3.92	....	....	36F009	31.60
8423	20-3	50	.277"	600	36F012A	1.76	....	....	36F012B	4.70	36F012C	9.11	36F012	44.10
8424	20-4	55	.295"	600	36F013A	1.91	....	....	36F013B	5.54	36F013C	10.39	36F013	50.27
8425	20-5	44	.323"	600	....	....	....	....	....	....	36F014C	12.94	36F014*	63.20
8426	20-6	40	.349"	600	....	....	....	....	....	....	36F015C	15.43	36F015*	77.32
8427	20-7	40	.360"	600	....	....	....	....	....	....	36F016C	16.90	36F016*	82.32
8428	18-2	47	.295"	600	....	....	....	....	....	....	36F017D	10.29	36F017	49.24
8418	20-8	42	.386"	600	....	....	....	....	....	....	36F018C	17.64	36F018*	88.20

MINIATURE CABLES

8413, 8406 rubber insulated; 8420 plastic insulated extremely flexible. 8420 is for low capacitance applications.

8413	24-2	38	.185"	300	36F026D	1.47	36F026C	2.20	36F026B	3.92	36F026A	7.35	36F026	35.28
8420	24-2	20	.178"	500	36F027D	1.47	36F027C	2.20	36F027B	3.33	36F027A	6.27	36F027	29.40
8406	24-3	43	.223"	300	....	....	....	....	....	....	36F202A	9.11	36F202	44.10

PLASTIC MICROPHONE AND SHIELDED POWER SUPPLY CABLES

Long flex life. High tensile strength, resistant to abrasion. Has tinned copper conductors, cellulose yarn braid Polyethylene insulation and tinned copper braid. Chrome vinyl plastic jacket. Available only in spool sizes listed.

8401	25-1	25	.200"	5000	36F020A	.85	36F020B	1.18	36F020C	2.30	36F020D	4.21	36F020	17.64
8411	25-1	34	.144"	3500	36F021A	.70	36F021B	.99	36F021C	1.71	36F021D	3.09	36F021	13.08
8422	22-2	18	.231"	1000	36F022A	1.13	36F022B	1.71	36F022C	3.18	36F022D	5.73	36F022	25.72
8403	20-3	25	.245"	600	36F023A	1.42	....	....	36F023B	3.53	36F023C	6.61	36F023	33.07
8404	20-4	25	.255"	600	36F024A	1.47	....	....	....	....	36F024C	7.50	36F024	37.48

STRAIN GAUGE CABLE

Type 8434. Four tinned conductors, two under "Beldfoil" aluminum-Mylar shield. Stranded ground wire and other two conductors under over-all "Beldfoil" shield. Conductors: AWG 25 (7x33, 4 copperweld, 3 copper). Sug. WV, 400. Nom. OD, .169". Chrome vinyl jacket.

36F1032A. 100 foot spool. **NET**............ **4.56**
36F1032B. 500 foot spool. **NTT**............ **22.05**
36F1032. 1000 foot spool. **NET**............ **44.10**

Type 8723. Four stranded copper conductors, paired. Each pair under "Beldfoil" aluminum-Mylar shield. Conductors: AWG 22 (7x30). Sug. WV, 400. Nom. OD, .165". Chrome vinyl jacket.

36F1033A. 100 foot spool. **NET**............ **4.56**
36F1033B. 500 foot spool. **NET**............ **22.05**
36F1033. 1000 foot spool. **NET**............ **44.10**

RG/U TRANSMISSION LINE CABLE

Has low-loss flexible polyethylene inner jacket covered by copper shield, with either vinyl or polyethylene outer jacket overall. All are single conductor type.

Type	RG/U No.	JAN Spec.	Nom. Imp.	AWG and stranding	Cap. mmf/ft.	Nom. O.D.	100 Ft.	NET	1000 Ft.	NET	Per Ft.
8237	RG-8/U	C-17A	52.0	13 (7x21)	29.5	.405"	36F113A	12.15	36F113	113.19	.15
8238	RG-11/U	C-17A	75.0	18 (7x26)	20.5	.405"	36F114A	10.98	36F114	101.43	.13
8240	RG/58/U	C-17A	53.5	20 solid	28.5	.195"	36F111A	4.85	36F111	42.63	.09
8259	RG-58A/U	C-17A	50.0	20 (19x.0071)	28.5	.195"	36F118A	4.95	36F118	42.63	.08
8241	RG-59/U	C-17A	73.0	22 Copperweld	21.0	.242"	36F110A	5.68	36F110	46.06	.09

BROADCAST AUDIO CABLE

High insulation resistance and high percentage of shielding assure low noise circuits. Free from crosstalk. Copper shield plus drain wire plus shield isolation eliminate current loops. 8440 has enameled conductors. 8436 is ABC type. 8437 and 8441 are CBS types. 8440 is standard type.

Type	AWG and Cond.	Nom. O.D.	Work. Volt.	100 Ft. Spool	NET	1000 Ft. Spool	NET	Per Foot
8437†	22-2	.200"	200	....	....	36F093	35.28	.05
8436*	22-2	.180"	100	....	....	36F099	41.16	.06
8440*	22-2	.185"	100	....	....	36F096	41.16	.06
8441†	22-2	.210"	200	36F036A	4.41	36F036	41.41	.06

*—Has Spiral-Wrap Shields †—Has Braided Shields

MINIATURE BROADCAST AUDIO CABLES

100% shield coverage against electrostatic fields. Polypropylene insulated. Copper drain wire. Beldfoil aluminum-mylar shield Vinyl jacket. Type 8450 is solid, 8451 is stranded.

Type	A.W.G.	O.D.	Work. Volt.	Stock No.	NET per 100'	Stock No.	NET per 1000'
8450	22-2	.118"	200	36F028A	2.50	36F028	20.58
8451	22-2	.135"	200	36F029A	2.91	36F029	26.46

MULTIPLE PAIR UNSHIELDED INTERCOM CABLE

All have No. 22 solid tinned copper conductors, vinyl plastic insulation. Cabled in color coded pairs. Outer jacket of chrome vinyl plastic is free stripping, weather resistant and waterproof. Type 8481 has no outer jacket. Type 8751 has Beldfoil aluminum-Mylar wrapped shield and a drain wire.

Mfr's. Type	No. Pairs	Nom. O.D.	Lbs. 100 Ft.	Stock No.	100 Ft.	Stock No.	1000 Ft.	Per Ft.
8481	1	.112"	1	36F068A	1.25	36F068	8.82	.02
8740	1	.150"	1¾	36F060A	1.76	36F060	12.50	.02
8741	2	.201"	2½	36F061A	2.89	36F061	22.78	.04
8742	3	.240"	3			36F062	31.60	.05
8757	4	.255"	4	36F069A	4.35	36F069	40.42	.05
8743	6	.305"	4¾	36F063A	5.88	36F063	54.39	.07
8744	9	.354"	6¼	36F064A	7.94	36F064	75.70	.10
8753	11	.384"	8¼	36F067A	10.73	36F067	102.90	.13
8745	15	.420"	10½	36F065A	13.67	36F065	130.83	.16

As above except 7x30-22AWG stranded tinned copper conductor. More flexible, easier to pull through conduit with more than usual number of bends.

Mfr's. Type	No. Pairs	Nom. O.D.	Lbs. 100 Ft.	Stock No.	100 Ft.	Stock No.	1000 Ft.	Per Ft.
8747	6	.340"	5¼	36F075A	8.08	36F075	73.50	.10
8748	9	.389"	7¼	36F076A	11.17	36F076	105.84	.14
8749	15	.425"	12½	36F077A	19.11	36F077	176.40	.23
8750	27	.595"	21			36F078	330.26	.39

MULTIPLE PAIR INDIVIDUALLY SHIELDED INTERCOM CABLE

No. 22. Solid tinned copper, cabled in pairs with ground wire. Beldfoil aluminum Mylar shield, over each pair, chrome vinyl jacket. 300V suggested working voltage.

Mfr. No.	No. Pairs	Norm. O.D.	Stock No.	100 Ft.	Stock No.	500 Ft.	Stock No.	1000 Ft.
8767	3	.298"	36F190B	6.47	36F190A	32.34	36F190	64.68
8768	6	.394"	36F191B	12.05	36F191A	60.27	36F191	120.54
8764	9	.425"	36F192B	17.64	36F192A	88.20	36F192	176.40
8765	11	.485"	36F193B	19.84	36F193A	99.23	36F193	198.45
8766	15	.510"	36F194B	27.93	36F194A	139.65	36F194	279.30

MULTIPLE CONDUCTOR INTERCOM CABLES (NOT PAIRED)

Tinned copper, stranded, with vinyl plastic insulation. Conductors cabled and color-coded. All have chrome vinyl plastic jacket overall. Suggested WV 200v.

Mfr's. Type	A.W.G. Gauge and Cond.	Nom. O.D.	Lbs. 100 Ft.	Stock No.	25 Ft.	Stock No.	100 Ft.	Stock No.	1000 Ft.
8443	22-3	.150"	2	36F040A	.81	36F040B	2.40	36F040	18.36
8444	22-4	.168"	2¼	36F041A	.96	36F041B	2.94	36F041	24.25
8445	22-5	.180"	2½	36F042A	1.14	36F042B	3.63	36F042	29.40

Mfr's. Type	A.W.G. Gauge and Cond.	Nom. O.D.	Lbs. 100 Ft.	Stock No.	15 Ft.	Stock No.	100 Ft.	Stock No.	1000 Ft.
8446	22-4 & 18-2	.222"	4	36F043A	1.03	36F043B	5.29	36F043	47.43
8447	22-5 & 18-2	.246"	4½	36F044A	1.13	36F044B	6.03	36F044	53.55
8448	22-6 & 18-2	.251"	5	36F045A	1.18	36F045B	6.27	36F045	59.67
8449	22-7 & 18-2	.261"	5½	36F046A	1.27	36F046B	7.01	36F046	65.79
8465	18-5	.272"	6	....	.....	36F1017A	5.88	36F1017	53.90
8467	18-7	.320"	7	....	.....	36F1018A	7.64	36F1018	72.03
8469	18-9	.375"	8	....	.....	36F1019A	10.00	36F1019	95.55

Type	A.W.G. Gauge	No. of Cond.	O.D.	Lbs. 100 Ft.	Stock No.	100 Ft.	Stock No.	500 Ft.	Stock No.	1000 Ft.
8456	22	10	.260"	6	36F200B	6.91	36F200A	32.34	36F200	64.68
8457	22	12	.260"	6	36F201B	7.35	36F201A	34.54	36F201	69.09

SHIELDED PAIR-UNSHIELDED PAIR INTERCOM CABLE

Type 8732. Has one pair AWG 22 stranded (7x30) wires shielded and one pair unshielded. Conductors are tinned, shield is tinned copper braid. Polyethylene insulation, chrome vinyl jacket. OD, .188"x.296". Sug. WV, 350.

36F173A. 100 feet. **NET**	**4.41**
36F173. 1000 feet. **NET**	**41.89**
36F173. Per foot	**.06**

SHIELDING AND BONDING CABLES

Tinned copper braiding. Supplied only as listed.

Type	ID (in.)	Lbs 50 Ft.	Stock No.	10 Ft.	Stock No.	50 Ft.	Stock No.	250 Ft.
8660	1/8	½	36F220A	.50	36F220B	1.47	36F220	6.61
8668	11/64	¾	36F223A	.68	36F223B	2.02	36F223	8.82
8663	¼	1	36F225A	.59	36F225B	1.86	36F225	8.08
8661	3/8	1¼	36F221A	.67	36F221B	2.30	36F221	10.29
8669	½	2¼	36F224A	1.18	36F224B	5.39	36F224	24.40
8662	25/32	¾	36F222A	1.55	36F222B	6.91	36F222	33.81

BELDEN WIRE & CABLE

SHIELDED P.A. AND SOUND SYSTEM CABLE

Copper spiral wrapped shield. Chrome vinyl jacket. Fig. A.

Type	AWG & Cond.	Nom. O.D.	Sug. WV	Stk. No.	100 Ft.	Stk. No.	1000 Ft.	Per Ft.
8739	22-2 Solid	.160"	350	36F081A	2.89	36F081	22.25	.04
8737	22-2 Strd.	.170"	350	36F084A	3.33	36F084	26.46	.04
8759	20-2 Strd.	.195"	350	36F085A	3.68	36F085	33.81	.05
8780	16-2 Strd.	.266"	450	36F106A	5.59	36F106	52.92	.07
8790	18-2 Strd.	.231"	450	36F107A	4.36	36F107	39.29	.05
Beld Foil aluminum-Mylar wrapped shield. Chrome vinyl jacket. Fig. B.								
8761	22-2 Strd.	.167"	350	....	....	36F165	23.52	.03
8762	20-2 Strd.	.184"	350	36F166A	3.37	36F166	30.87	.04
8760	18-2 Strd.	.222"	450	....	....	36F164	36.75	.05
8771	22-3 Strd.	.175"	350	....	....	36F168	29.40	.04
8772	20-3 Strd.	.200"	350	....	....	36F169	36.75	.05
8770	18-3 Strd.	.236"	450	....	....	36F167	46.30	.06
Tinned copper braid shield. Chrome vinyl jacket. Fig. C.								
8208	18-2 Strd.	.270"	200	36F195	5.83	36F195A	49.98	.09
8735	22-3 Strd.	.199"	350	36F083A	4.21	36F083	37.48	.07
Tinned copper braid shield. No jacket. Fig. D.								
8738	22-2 Solid	.130"	350	36F080A	2.50	36F080	20.58	.03
8758	20-2 Strd.	.165"	350	36F086A	2.94	36F086	27.19	.04
8789	18-2 Strd.	.205"	450	36F102A	4.21	36F102	37.93	.05

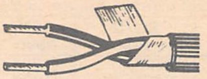


Fig. A

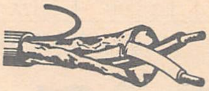


Fig. B

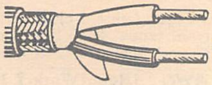


Fig. C

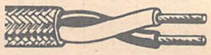


Fig. D

TWO AND THREE CONDUCTOR UNSHIELDED CABLE

Twisted, have no jacket. Vinyl insulation. *Not tinned. Fig. E.

Type	AWG & Cond.	Nom. O.D.	Sug. WV	Stk. No.	100 Ft.	Stk. No.	1000 Ft.	Per Ft.
8481	22-2 Solid	.112"	350	36F1008A	1.26	36F1008	8.82	......
8482	19-2 Solid	.115"	350	36F1009A	1.58	36F1009	11.03	......
8460	18-2 Strd.	.175"	450	36F1010A	2.21	36F1010	18.82	......
8470	16-2 Strd.	.195"	600	....	2.83	36F1011	23.58	......
8483	19-3 Solid*	.132"	350	36F1012A	1.91	36F1012	16.27	......
Chrome vinyl jacket. *Not tinned. Fig. F.								
8740	22-2 Solid	.150"	200	36F1013A	1.78	36F1013	12.50	......
8461	18-2 Strd.	.226"	450	36F1014A	3.09	36F1014	26.46	......
8471	16-2 Solid	.256"	600	....	3.92	36F1015	33.51	......
8443	22-3 Strd.	.150"	200	36F1016A	2.43	36F1016	18.38	......

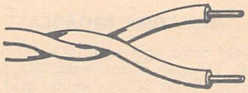


Fig. E

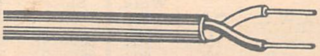
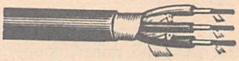


Fig. F

RUBBER MULTI-COVERED PORTABLE CORDAGE 300V-60° C.

Cotton wrap, rubber insulation. Coded, cabled with fillers. Black rubber jacket. All 41x34 stranded except 8472, 65x34 stranded, and 8474, 41x30 stranded. †U.L. approved. Quantities under 100 ft. available in spool sizes only as listed.



Type	AWG and Cond.	Nom. OD	Lbs. 100 Ft.	Stock No.	15 Ft.	Stock No.	25 Ft.	Stock No.	50 Ft.	Stock No.	100 Ft.	Stock No.	250 Ft.	Stock No.	500 Ft.
8452†	18-2-SV	.245"	4	36F030A	.96	....	....	36F030B	2.45	36F030C	4.36	....	....	36F030	20.24
8453†	18-3-SV	.265"	5	36F031A	1.18	....	....	36F031B	3.09	36F031C	6.17	....	....	36F031	30.87
8454	18-4	.265"	6	36F032A	1.42	....	....	36F032B	3.67	36F032C	7.06	....	....	36F032	33.81
8455	20-3 & 18-2	.280"	5½	....	1.47	....	....	....	3.97	36F033C	7.35	36F033	18.37	....	....
8472†	16-2-SJ	.325"	7	....	....	36F034A	1.86	36F034B	3.67	36F034C	7.01	36F034	16.53	....	....
8474	14-2	.360"	......	....	....	....	....	....	....	36F037A	8.82	36F037	20.94	....	....
8478†	18-2-SJ	.299"	5½	....	....	36F035A	1.62	....	....	36F035C	5.29	36F035	13.23	....	....

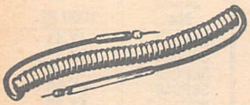
TEST PROD WIRE

Tinned copper, separator, rubber insulated. Quantities under 100 ft. available only in spool sizes listed.

Type	Color	A.W.G.	Nom. OD	WV	10'	NET	25'	NET	100'	NET	500'	NET
8898	Black	18-65x36	.230"	10000	36F001A	.71	36F001B	1.26	36F001C	3.53	36F001	16.02
8898	Red	18-65x36	.230"	10000	36F000A	.71	36F000B	1.26	36F000C	3.53	36F000	16.02
8899	Red	18-65x36	.144"	5000	36F005A	.47	36F005B	.81	36F005C	2.35	36F005	9.95
8899	Black	18-65x36	.144"	5000	36F006A	.47	36F006B	.81	36F006C	2.35	36F006	9.95

36F004. Type 8899. 14 Ft. Spool, consists of 7 Ft. Red and 7 Ft. Black. Ready for use. NET........ .59

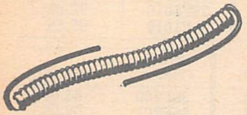
COILED TEST PROD WIRE



Tinned copper, rubber insulated. Retracted length 8". Stretches to 5'. 8878 with prods. 8879 without prods. One black, one red lead.

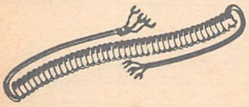
Type	AWG (Stranding)	O.D.	WV	Stk. No.	PR.
8878	20(42x36)	.170"	5000	36F130	2.20
8879	20(42x36)	.170"	5000	36F131	.96

NEOPRENE AND VINYL COILED MICROPHONE CABLES



Cadmium bronze wire microphone cables with neoprene or vinyl jacket. Retracts when not in use. Neoprene cables are resist to effects of sun, oil and ozone and are recommended for outside use.

Stock No.	Type	AWG (Stranding)	Retracted Length (in.)	Extended Length (ft.)	Nom. OD (in.)	Jacket Material	Conductors	Shpg. wt. (oz.)	NET
36F038	8415	23 (21x36)	11½	6	.250	Neoprene	4	6	1.13
36F205	8496	23 (21x36)	11½	4½	.250	Vinyl	3 cond-1 shielded	4	.99
36F206	8498	24 (45x40)	7½	4	.180	Vinyl	1 shielded	13	.71
36F207	8497	23 (21x36)	11½	6	.250	Neoprene	3 cond-1 shielded	4	1.14
36F208	8499	24 (45x40)	7½	4	.160	Neoprene	1 shielded	2	.73



For telephone use. Cadmium bronze, black vinyl jacket. One end stripped 7¾", spade terminals attached and hook strain relief clamped over jacket. Other end stripped 6¼" and spade terminals attached.

36F203	8494	23 (21x36)	10	4½	.245	Vinyl	4	3	1.17
36F204	8495	23 (21x36)	10	4½	.220	Vinyl	3	3	.99

HI-FI AND STEREO CABLES

All are phono pick-up cable except 8421, Hi-Fi connecting cable. Tinned copper braid shield and brown cotton jacket, 8431 is rubber insulated. 8419, 8429, 8430 Conductors are vinyl insulated. *No shield, no jacket. ** Rubber insulated conductors. †Spiral wrapped shield, chrome vinyl jacket, cellular polyethylene insulated conductor.

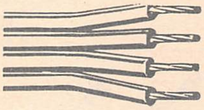
Type	No. of Cond.	AWG and (stranding)	Nom. O.D.	Nom. mmf/ft.	Stock No.	10 Ft.	Stock No.	15 Ft.	Stock No.	25 Ft.	Stock No.	100 Ft.	Stock No.	250 Ft.	Stock No.	500 Ft.
8430*	2	32 (7x40)	.050"	21	36F158B	.52	....	......	36F158A	.67	....	......	36F158	4.12	....	....
8429	2	32 (7x40)	.057"	22	36F150B	.67	....	......	36F150A	1.06	....	......	36F150	7.50	....	....
8419	3	32 (7x40)	.063"	30	36F159B	.73	....	......	36F159A	1.25	....	......	36F159	8.82	....	....
8431**	1	24 (16x36)	.095"	96	36F152A	.52	36F152B	.65	36F152C	.99	36F152D	3.09	....	......	36F152	14.41
8421†	1	25 (7x33)	.180"	18	....	......	....	......	36F226A	.85	36F226B	1.17	36F266C	3.67	36F226	8.33

WIRE AND CABLE BELDEN

TWIN LEADS

Low loss high quality twin lead for all applications. Stranded bare copper wire, except 8230, stranded "weldohm" providing 1½ times the strength and 2½ times the flexibility without sacrificing RF characteristics. Nominal velocity of propagation, 80% except 8222, 68%. Polyethylene insulated. Shpg. wt., 2 lbs. per 100 ft. Quantities under 100. ft. available only in sizes listed.

Impedance	Type	AWG	50 Ft.	NET	75 Ft.	NET	100 Ft.	NET	500 Ft.	NET	1000 Ft.	NET
300 ohms	8225	20	36F210A	1.03	36F210B	1.32	36F210C	1.88	36F210D	2.35	36F210	14.65
300 ohms	8230	20	36F209A	1.21	36F209B	1.67	36F209C	2.09	36F209D	10.00	36F209	18.62
72 ohms	8222	13	....	....	....	....	36F213A	1.62	36F213	7.35	....	....

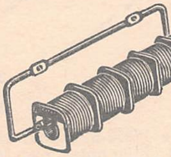


4 CONDUCTOR ROTOR CABLE

Type 8464. Weatherproof cable for rotators. No. 20 AWG. One cond. tinned for polarity. Chrome vinyl insulation. Size: .070x.390".

No.	Feet	Shpg. Wt.	Net
36F231A	75 Flat Coil	2½ lbs.	2.30
36F231B	100 Flat Coil	3 lbs.	2.89
36F231	1000 Spool	28 lbs.	25.72

BELDEN WORKBENCH HOOKUP WIRE DISPENSER KIT



BELDEN Hook-Up wire in convenient spools of different colors. Perfect for the serviceman, model builder, hobbyist, or whatever type of job assorted colors of hook-up wire is needed. Each kit comes with handy dispenser rack for mounting.

Type 8818. Eight 25' spools of type 8941. One each of black, blue, brown, green, orange, red, white, yellow. 20 AWG solid tinned copper wire; Cellulose Acetate wrap and braid lacquered. 2 lbs.
36F175. NET **4.94**

Type 8819. Five 100' spools of type 8941. One each of black, blue, green, red, white. 20 AWG solid tinned copper wire; Cellulose Acetate wrap and braid lacquered. 3.3 lbs.
36F176. NET **7.94**

Type 8820. Eight 25' spools of type 8943. 1 each of black, blue, green, orange, red, white, yellow, brown. 20 AWG stranded 10x30 tinned copper wire; Cellulose Acetate wrap and braid lacquered. 2.1 lbs.
36F177. NET **4.94**

Type 8821. Five 100' spools of type 8943. One each of black, blue, green, red, white. 20 AWG stranded 10x30 tinned copper wire: Cellulose Acetate wrap and braid lacquered. 3.4 lb.
36F178. NET **8.08**

Type 8822. Ten 25' spools of type 8529. One each of black, brown, gray, green, light blue, orange, red, violet, white, yellow. Solid tinned copper wire. Meets MIL-W-76B. .016" Wall Vinyl Thermoplastic Insulation. 2.3 lbs.
36F179. NET **4.31**

Type 8823. Five 100' spools of type 8529. One each black, green, light blue, red, white. 20 AWG solid tinned copper wire. Meets MIL-W-76B. .017" Wall Vinyl Thermoplastic Insulation.
36F180. NET **4.70**

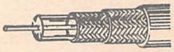
Type 8824. Eight 25' spools of type 8523. One each of black, brown, green, light blue, orange, red, white, yellow. 20 AWG stranded tinned copper wire. Meets MIL-W-76B. .017" Wall Vinyl Thermoplastic Insulation. 2.1 lbs.
36F181. NET **3.76**

Type 8825. Five 100' spools of type 8507. One each white, white-black, white-green, white-red, white-yellow. 20 AWG stranded 19x32 tined copper. Meets MIL-W-16878-D. .010" Wall Vinyl Thermoplastic Insulation. 3.4 lbs.
36F182. NET **7.48**

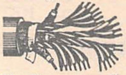
Type 8826. Five 100' spools of type 8508. One each white, white-black, white-green, white-red, white-yellow. 22 AWG stranded 19x34 tinned copper. Meets MIL-W-16878-D. .010" Wall Vinyl Thermoplastic Insulation. 2.6 lbs.
36F183. NET **7.33**

Type 8827. Five 100' spools of type 8518. One each of white, black, green, light blue, red. 22 AWG stranded 19x34 tinned copper wire. Meets MIL-W-16878-D. .010" Wall Vinyl Thermoplastic Insulation Nylon Jacket. 2.7 lbs.
36F184. NET **8.38**

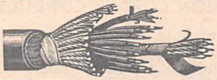
TV STUDIO CABLES



Type 8281. 75 Ohm Video Cable. Solid, bare, No. 20 copper cond. Plas., insul., and jacket, O.D. .304", Nom. cap. 20.7 mmf/ft. Tinned copper double braid shield black polyetlylene jacket.
36F141A. 100 foot spool. **NET** **16.17**
36F141B. 500 foot spool. **NET** **80.85**
36F141. 1000 foot spool. **NET** **161.70**



Type 8280. TV Camera Cable. 4 cond.; no. 18, cabled and coded, 21 cond.: no. 22 cabled and coded. Plas., insulated. 3 51 ohm coax. cables. Tinned braid shield, plas. jacket. O.D. .750".
36F140. NET, Per foot .... **.70**

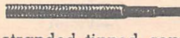


Type 8283. TV color camera cable. Has 7 conductors (4-14 AWG and 3-16 AWG) wrapped in "Beldfoil" aluminum-Mylar shield; 8-53.5 ohm coaxial cables. 67-22 AWG tinned copper wires, 7 under conductive textile shield with ground wire. Tinned copper braid shield, chrome vinyl plastic jacket. Nominal OD, 1.22". All conductors stranded.
36F1300. NET, per foot **2.63**

HIGH VOLTAGE AND CATHODE RAY CABLE

Type 8868. Tinned copper, conductive polyethylene, polyethylene insulated vinyl jacket. AWG 22 (7x30); insulation thickness, .045"· jacket thickness, .015". Breakdown voltage, 50,000 volts; suggested WV, 25,000.
36F070A. 25 feet. **NET** .... **.73**
36F070. 100 feet. **NET** **1.86**

SHIELDED GRID AND HOOK-UP WIRE



Type 8885. No. 20, 10 by 30 stranded tinned copper, 1⁄64" rubber, cellulose acetate yarn braid, copper shield. WV 1500V. Wt. per 100 feet, 2 lbs.
36F151A. 15 ft. .... **.68**
36F151B. 25 ft. **1.00**
36F151C. 100 ft. **3.09**
36F151. 500 ft. **14.34**

HEAVY NYLCLAD MAGNET WIRE—ON 1 POUND SPOOLS

Combines the most desirable features of Formvar with the toughness and solvent resistance of Nylon enamel. Will out-perform all other A.I.E.E. Class A film-coated wire.

Stock No.	Type	Size	Feet	NET
36F767	8073	14	80	1.15
36F768	8074	16	126	1.15
36F769	8075	13	199	1.18
36F770	8076	20	315	1.22
36F771	8077	22	501	1.28
36F772	8078	24	793	1.35
36F773	8079	26	1260	1.49
36F774	8080	28	1990	1.62
36F775	8081	30	3140	1.84
36F776	8082	32	4880	2.02
36F777	8083	34	7860	2.35
36F778	8084	36	12400	2.94
36F779	8085	38	19400	3.75
36F780	8086	40	32100	5.52

LITZ WIRE

Type 8817. 5x44 Celenamel conductor. Nylon wrap. .008" Nom. Diam. Shpg. wt., 1½ oz.
36F154. 100 ft., spool only. **NET** .... **.29**

VOICE COIL LEAD WIRE

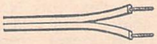
Type 8127. 25 A.W.G. 32x40 braided bare copper wire. .024" Nominal Diameter. Available in 10 foot spools only. Wt. 1½ oz.
36F155. 10 ft. spool only. **NET** .... **.37**

BUS BAR WIRE

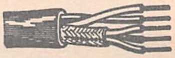
Bare bus bar wire is made of solid tinned copper for use when a high current conductor is needed.

Type No.	AWG	Stk. No.	100 ft.	Stk. No.	1000 ft.
8027	34	36F1020A	.49	36F1020	2.20
8026	32	36F1021A	.49	36F1021	2.20
8025	30	36F1022A	.49	36F1022	2.20
8024	28	36F1023A	.49	36F1023	2.35
8023	26	36F1024A	.50	36F1024	2.58
8022	24	36F1025A	.50	36F1025	2.94
8021	22	36F1026A	.52	36F1026	3.33
8020	20	36F1027A	.59	36F1027	3.92
8019	18	36F1028A	.73	36F1028	5.14
8013	16	36F1029A	1.08	36F1029	8.08
8012	14	36F1030A	1.47	36F1030	11.76
8011	12	36F1031A	2.06		

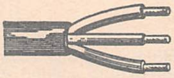
JUKE BOX CONTROL CABLES



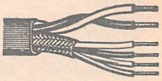
Model 8782



Model 8785



Model 8783



Model 8786

Model 8782. Speaker extension wire. No. 24., 7x32 stranded, parallel conductor. .058x.115". 1 bare and 1 tinned copper conductor. Chrome vinyl insulation.

Per foot .... **.03**
36F105C. 25-foot spool. **NET** .... **.52**
36F105B. 50-foot spool. **NET** .... **.76**
36F105A. 100-foot spool. **NET** **1.21**
36F105. 500-foot spool. **NET** **4.41**

Model 8783. 3 conductor, cabled juke box control cable. Stranded, tinned copper cond. 1-20 A.W.G. 2-16 A.W.G. O.D. .250". .020" insulation thickness on singles.
Per foot .... **.06**
36F108. 500-foot spool. **NET** **20.58**

Model 8785. Manual remote cable for "100" record players. No. 22 A.W.G. 7x30 stranded, tinned copper conductor. O.D. .211"x.316" 5 coded cabled cond., Chrome vinyl jacket. 3 conds. shielded.
Per foot .... **.06**
36F137. 500 Foot spool. **NET** **24.25**

Model 8786. Above cable for "200" record player. 6 cond. color coded. 2-#22 (7x30) unsh. and 4-#24 (7x32) shielded chrome vinyl jacket. O.D. .211"x.316".
Per foot .... **.07**
36F138. 500 foot spool. **NET** **24.19**

INDOOR AERIAL WIRE

Type 8014. No. 25, 13 x 36 stranded tinned copper, flexible stranding; with chrome vinyl plastic insulation. High quality antenna lead for window to set application. Wt., 4 oz.
36F153. 25-ft. Coil. **NET** .... **.37**

WIRE AND CORDS

BELDEN WIRE

DUPLEX PRIMARY WIRE

Tinned copper, flexible stranding; vinyl plastic insulation; 1 brown, 1 red conductor; chrome vinyl jacket. 100 ft. 5½ lbs.

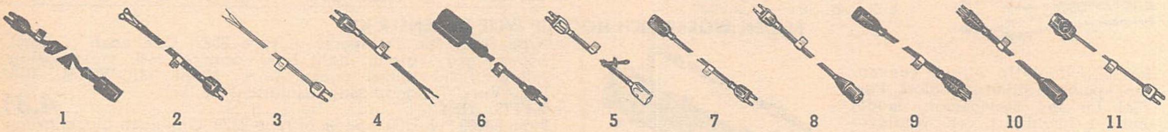
Stock No.	Type	AWG and (stranding)	Size	100 Ft.	Per Ft.
36F170	8677	16 (19x29)	.164x.276	5.59	.08
36F171	8675	14 (19x27)	.189x.326	7.30	.12
36F172	8673	12 (19x25)	.213x.384	9.49	.14

ALUMINUM GROUND WIRE

Type 8018. Soft drawn No. 8 AWG solid aluminum wire. Approved for all grounding applications in TV, FM, Amateur and other antenna installations. Shpg. wt., per 100 ft., 2½ lbs.

36F763. 50 foot coil .... .88

500 foot coil 7.35



COILED APPLIANCE CORDS

Combines full length standard cords with convenience of retracted length. Coiled length 1 ft. extends to 6 ft. Made of Neoprene heater cordage with unbreakable rubber plug. UL approved. Shpg. wt. 9 oz.

Type 17836-S No. 18 AWG. Cord without appliance plug. Has No. 8 screw terminals for direct attachment.

36F1303. .... 1-24. NET Ea.... **.76**

25 up. NET Ea.......... .69

Type 17886-S No. 18 AWG. Cord for coffeemaker-fry pan set. ½" pin spacing.

36F1306. .... 1-24 NET Ea.... **.97**

25 up. NET Ea.......... .87

Type 17887-S No. 18 AWG. Standard appliance plug cord set. 1 1/16" pin spacing.

36F1304. .... 1-24. NET Ea.... **.99**

25 up. NET Ea.......... .88

Type 17888-S No. 16 AWG. Heavy duty roaster cord set. 1 1/16" pin spacing.

36F1305. .... 1-24. NET Ea.... **1.08**

25 up. NET Ea.......... .95

HEATER APPLIANCE CORD

Type 17706-S. For use on all heater appliances where cord is permanently attached. Especially recommended for irons and other appliances where high flexibility is important. 6 feet long with molded vinyl cord holder plug and ring terminals for #8 screws. Glazed cotton braid jacket stripped 1 1/16" with fiber glass tie. AWG 18 stranded wire (41x34) rated at 10 amps., 125 volts. UL approved.

36F867. .... 1-49. NET Ea.... **.65**

Lots of 50 Bulk Packed. 50 up. NET Ea.......... .58

36F867A. .... NET Ea.......... .48

Type 17806-S. 6 foot black neoprene covered parallel AWG 18 stranded wire with unbreakable molded vinyl plug. For use on heating appliances, tools, etc., especially stationary heating appliances such as toasters. Rated at 10 amps., 125 Volts. Stranding: 41x34 AWG. UL approved. Shpg. wt., 8 oz.

36F1036. .... 1-24. NET Ea.... **.39**

Lots of 50 Bulk Packed. 25 up. NET Ea.......... .35

36F1036A. .... NET Ea.......... .26

LAMP CORD WITH PLUG

Type 17126-S. Replacement parallel lamp cord. For small ap-appliances. Brown rubber. 6 ft. UL approved.

36F854. .... 1-99. NET Ea.... **.37**

Lots of 100 Bulk Packed. 100 up NET Ea.......... .33

36F854A. .... NET Ea.......... .23

POWER CORDS AND PLUGS

Type 17206-S. Two conductor, AWG 18 stranded, gray rubber covered cordage with unbreakable vinyl molded cord holder plug. For mixers, business machines, and most appliances using fractional horsepower motors.

36F851. .... 1-24. NET Ea.... **.55**

Lots of 50 Bulk Packed 25 up. NET Ea.......... .49

36F851A. .... NET Ea.......... .36

Type 17408-S. Three conductor, 8 ft. No. 18 SJ black rubber cord. With vinyl 3 prong grounding plug, stripped leads. Heavy duty for industrial use. UL approved. Shpg. wt. 10 oz.

36F857. .... 1-24. NET Ea.... **.88**

Lots of 50 Bulk Packed. 25 up. NET Ea.......... .78

36F857A. .... NET Ea.......... .65

APPLIANCE CORDS

Type 17852-S. 2 foot short cord. Ideal for range and counter tops. Eliminates excess cord. ½" pin spacing. UL approved. No. 17 wire. Shpg. wt. 4 oz.

36F825. .... 1-49. NET Ea.... **.41**

50 up. NET Ea.......... .36

Type 17866-S. Same as above except 6 ft. long. Wt. 9 oz.

36F873. .... 1-24. NET Ea.... **.53**

25 up. NET Ea.......... .49

Type 17856-S. Coffeemaker cord set. 1 1/16" pin spacing.

36F1309. .... 1-24. NET Ea.... **.52**

25 up. NET Ea.......... .46

Type 17876-S. Heavy duty roaster cord set. 1 1/16" pin spacing. 6 feet long.

36F874. .... 1-24. NET Ea.... **.65**

25 up. NET Ea.......... .59

2 CONDUCTOR EXTENSION CORDS

Type 17270-C. 20 ft. No. 18 AWG, grey, UL approved SV rubber cordage. Unbreakable vinyl cord-holder plug and connector. Fits standard connections. Single outlet. Wt., 1 lb.

36F855. .... 1-24. NET Ea.... **1.10**

25 up. NET Ea.......... .98

Type 17361-S. 10 ft. No. 16 AWG Black rubber cordage. Vinyl cord-holder plug and connector. UL approved. Shpg. wt. 1 lb.

36F868. .... 1-24. NET Ea.... **.94**

25 up. NET Ea.......... .84

Type 17555-S. For longer extensions requiring added insulation and abrasion protection. 25 foot black rubber cord with molded rubber plug and connector. AWG 16 (65x34) wire.

36F1034. .... 1-9. NET Ea.... **2.67**

10 up. NET Ea.......... 2.38

3 CONDUCTOR EXTENSION CORD

Type 17460-S. 10 ft. No. 18 AWG wire. 3 conductor black SJ rubber cordage. Vinyl grounding plug and connector. UL approved. Shpg. wt. 1 lb.

36F859. .... 1-24. NET Ea.... **1.23**

25 up. NET Ea.......... 1.11

AIR CONDITIONER EXTENSION CORD (3 CONDUCTORS)

Type 17659-S. Meets UL requirements for 125 volt air conditioner extensions. Three conductor, 9 foot grey rubber cordage with 3 prong molded rubber grounding plug and connector. Rated at 15 amps., 125 volts. .560" OD. Shpg. wt., lbs.

36F1035. .... 1-9. NET Ea.... **2.74**

10 up. NET Ea.......... 2.45

CUBE-TAP EXTENSION CORDS

Unbreakable molded vinyl plug, molded 3-way connector. SPT-1 18-ga. conductor, 41x34 stranding. UL approved.

No.	Type	Length	Color	1-49	50 up
36F1301	17156-S	6′	Brown	.42	.38
36F1302	17159-S	9′	Brown	.49	.43
36F1307	17162-S	12′	Brown	.53	.48
36F1308	17165-S	15′	Brown	.61	.55

WARREN TEFLON WIRE

Warrenex 32100 extruded teflon hook up stranded wire. Meets MIL-W-17878C specification. Type E 600 V. All on 100 feet spools. Specify color from Color-Code.

Stock No.	Type	Size	Gauges	25 ft. Coil	50 ft. Coil	100 ft. Coil	500 ft. Spool	1000 ft. Spool
36F1500	32100	7/38	30	.79	1.58	3.16	14.55	28.70
36F1501	32100	7/36	28	.85	1.71	3.42	15.55	31.10
36F1502	32100	7/34	26	.92	1.83	3.67	16.70	33.40
36F1503	32100	19/36	24	1.06	2.12	4.23	19.25	38.50
36F1504	32100	19/34	22	1.14	2.40	4.80	21.85	43.70
36F1505	32100	19/32	20	1.40	2.81	5.63	25.63	51.25
36F1506	32100	19/30	18	1.82	3.64	7.28	33.10	66.20
36F1507	32100	19/29	16	2.39	4.78	9.57	43.50	87.00

COLOR CODE

1—Brown
2—Red
3—Orange
4—Yellow
5—Green
6—Blue
7—Violet
8—Gray
9—White
10—Black

CONSOLIDATED WIRE

U-L APPROVED RUBBER SHEATHED SERVICE CORD

All cord below is U-L approved and provides dependable service as power supply cords, inter-connecting cables on electronic equipment, remote control circuits, etc. Designed for long life, excellent mechanical and electrical characteristics and uniform qualities. Special black rubber jacket. Has excellent resistance to abrasion and ozone. Supplied only in coil sizes listed,

Mfr. No.	Gauge	Type	Wt./100' in Lbs.	25 Feet		50 Feet		100 Feet.		1000 Feet	
				No.	NET	No.	NET	No.	NET	No.	NET
4202	18-2/C	SV	4	36F500A	1.20	36F500B	2.25	36F500C	4.49	36F500	40.28
4207	18-2/C	SJ	5¼	36F501A	1.50	36F501B	2.55	36F501C	4.92	36F501	44.63
4212	18-3/C	SJ	5.85	36F502A	2.18	36F502B	3.98	36F502C	7.73	36F502	72.69
4217	16-2/C	SJ	6¼	36F503A	1.80	36F503B	3.30	36F503C	6.30	36F503	57.49
4222	16-3/C	SJ	8.05	36F504A	2.70	36F504B	5.03	36F504C	9.68	36F504	92.25
4227	18-2/C	S	8.65	36F505A	2.48	36F505B	4.43	36F505C	8.37	36F505	79.20
4232	18-3/C	S	8.85	36F506A	3.23	36F506B	6.00	36F506C	11.52	36F506	110.73
4237	16-2/C	S	9.65	36F507A	3.00	36F507B	5.40	36F507C	10.31	36F507	98.55
4242	16-3/C	S	11.75	36F508A	3.98	36F508B	7.50	36F508C	14.14	36F508	135.91
4247	14-2/C	S	15.85	36F509A	3.90	36F509B	7.43	36F509C	13.95	36F509	135.03
4252	14-3/C	S	18.50	36F510A	5.85	36F510B	11.33	36F510C	21.65	36F510	211.92
4257	12-2/C	S	21.05	36F511A	6.23	36F511B	12.00	36F511C	23.04	36F511	225.95
4262	12-3/C	S	22.95	36F512A	7.50	36F512B	14.25	36F512C	27.23	36F512	267.78
4267	10-2/C	S	23.05	36F513A	7.50	36F513B	14.25	36F513C	27.27	36F513	268.25
4272	10-3/C	S	28.95	36F514A	9.38	36F514B	17.63	36F514C	32.57	36F514	321.18

TINNED COPPER BUS BAR WIRE

Solid soft drawn copper and brightly tinned for all types of soldering connections and other applications. 1000-ft. and 100-ft. spools only.

Type	Nom. Dia.	Size Solid	Circular Mil. Area	No.	1000 Ft. NET	No.	100 Ft. NET
3845	.129"	8	16510	36F296	66.00	36F296A	6.60
3841	.102"	10	10380	36F295	42.75	36F295A	4.28
3831	.082"	12	6530	36F294	19.80	36F294A	1.98
3821	.064"	14	4110	36F293	14.25	36F293A	1.43
3815	.051"	16	2583	36F292	9.00	36F292A	1.05
3816	.040"	18	1624	36F291	6.75	36F291A	.75
3817	.032"	20	1022	36F290	4.13	36F290A	.54
3818	.025"	22	642	36F289	3.38	36F289A	.48
3819	.020"	24	404	36F285	2.63	36F285A	.43
3846	.016"	26	254.1	36F286	2.48	36F286A	.36
3847	.013"	28	159.8	36F287	2.33	36F287A	.35
3848	.010"	30	100.5	36F288	2.18	36F288A	.33

SOLID ENAMELED COPPER ANTENNA WIRE

No.	Mfg. No.	Description	NET
36F260A	3851	100-ft. Coil #14 Solid Enamel Copper Wire	1.65
36F260B	3851	200-ft. Coil #14 Solid Enamel Copper Wire	3.30
36F260	3851	1000-ft. Spool #14 Solid Enamel Copper Wire	15.00
36F261A	3861	100-ft. Coil #12 Solid Enamel Copper Wire	2.33
36F261B	3861	200-ft. Coil #12 Solid Enamel Copper Wire	4.65
36F261	3861	1000-ft. Spool #12 Solid Enamel Copper Wire	21.00
36F262A	3871	100-ft. Coil #10 Solid Enamel Copper Wire	4.50
36F262B	3871	200-ft. Coil #10 Solid Enamel Copper Wire	9.00
36F262	3871	1000-ft. Spool #10 Solid Enamel Copper Wire	44.63
36F263	3891	100-ft. Coil #8 Solid Enamel Copper Wire	6.75

SQUARE BUS WIRE

Hard drawn square copper wire in 2-ft. lengths. No. 12 gauge. Wt., 2 oz. Perfect for all wiring requirements.
36F299. NET per length.......................... **8c**

HIGH VOLTAGE AND CATHODE RAY CABLE

Tinned copper wire with white flame-retarding Polyethylene plastic insulation. Type 8868 has heavier insulation, red striped. Available only in sizes listed.

Mfr's. Type	A.W.G. Gauge	Voltage Rating	O.D.	Lbs. 100 Ft.	25 Ft.		100 Ft.	
					Stk. No.	NET	Stk. No.	NET
8868	20-7x28	20,000	.168"	2¾	36F070A	.73	36F070	1.86

HEAVY FORMVAR MAGNET WIRE

The correct wire for practically any application. Indispensable in the manufacture and repair of both radio and audio frequency coils, transformers, chokes, speaker field coils, short wave coils, tuners, transmitters, etc. Also widely used in the construction and repair of motors, generators, dynamos and other electronic equipment. **Supplied in 1 pound spools.**

No.	Type	Size	NET
36F521	2000	#14	1.13
36F522	2000	#15	1.13
36F523	2000	#16	1.14
36F524	2000	#17	1.16
36F525	2000	#18	1.17
36F526	2000	#19	1.19
36F527	2000	#20	1.20
36F528	2000	#21	1.26
36F529	2000	#22	1.29
36F530	2000	#23	1.34
36F531	2000	#24	1.38
36F532	2000	#25	1.43
36F533	2000	#26	1.46
36F534	2000	#27	1.56
36F535	2000	#28	1.59
36F536	2000	#29	1.77
36F537	2000	#30	1.79
36F538	2000	#31	2.03
36F539	2000	#32	2.10
36F540	2000	#33	2.16
36F541	2000	#34	2.19
36F542	2000	#35	2.51
36F543	2000	#36	2.54
36F544	2000	#37	3.45
36F545	2000	#38	3.51
36F546	2000	#39	5.37
36F547	2000	#40	5.48

MAGNET WIRE ON SPOOLS

Insul. copper wire of highest quality. Standard B&S Ga. We can supply magnet wire in all sizes, types. Write for quantity prices.

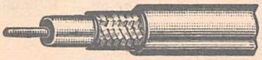
PLAIN ENAMELED ½-LB. SPOOLS

No.	Size	Feet	NET
36F700	14	38	.60
36F701	16	63	.60
36F702	18	101	.60
36F703	20	159	.62
36F704	22	253	.65
36F705	24	253	.65
36F706	26	640	.71
36F707	28	1013	.75
36F708	30	1602	.83
36F709	32	2543	.84
36F710	34	4042	.92
36F711	36	6410	1.07

DOUBLE COTTON ½-LB. SPOOLS

No.	Size	Feet	NET
36F720	14	40	.90
36F721	16	60	.93
36F722	18	95	1.01
36F723	20	150	1.10
36F724	22	225	1.20
36F725	24	350	1.34
36F726	26	525	1.46
36F727	28	825	1.71
36F728	30	1200	1.97
36F729	32	1750	2.31
36F730	34	2500	2.93
36F731	36	3725	3.60

RG COAXIAL CABLE



Low loss, good conductance coaxial cable for many RF applications. Withstands effects of weather, acids, alkalis, oil and gasoline; low moisture absorption qualities. (*) Have silvered copper outer shields. Inner shields: (†) Non contaminating low temperature black jacket. Others have vinyl and polyethylene jackets. All dielectrics polyethylene.

Stock No.	RG No.	Inner Shield	Imp. ohms	Mmf per ft.	O.D.	Lbs. 100'	1-999 ft. Per ft.	1000-2999 Per ft.	3000-4999 Per ft.
36F1050	5B/U†*	Silvd. Copper	50	29.5	.332"	8¼	.255	.248	.223
36F1051	6A/U†	Silvd. Copper	75	20	.332"	8½	.179	.172	.155
36F1052	8/U	Copper	52	29.5	.405"	10½	.116	.114	.101
36F1053	8A/U†	Copper	50	30.5	.405"	11	.134	.131	.120
36F1054	9/U	Silvd. Copper	51	30	.420"	14	.277	.265	.255
36F1055	9A/U†*	Silvd. Copper	51	30	.420"	14	.336	.323	.30
36F1056	9B/U†*	Silvd. Copper	50	30.5	.425"	14	.359	.342	.323
36F1057	11/U	Copper	75	20.5	.405"	10	.111	.108	.096
36F1058	11A/U†	Copper	75	20.5	.405"	10	.128	.125	.109
36F1059	58/U	Tinned Copper	53.5	28.5	.195"	3	.044	.041	.039
36F1060	58A/U†	Tinned Copper	50	29.5	.195"	3	.05	.048	.043
36F1061	58C/U†	Tinned Copper	50	29.5	.195"	3	.054	.053	.049
36F1062	59/U	Copper	73	21	.242"	4	.052	.049	.045
36F1063	59B/U†	Copper	75	20.5	.242"	4	.061	.059	.055
36F1064	62/U	Copper	93	13.5	.242"	4	.056	.053	.049
36F1065	62A/U†	Copper	93	13.5	.242"	4	.063	.062	.054
36F1066	71A/U†	Cop. or Tin. Cop.	93	13.5	.245"	5	.10	.097	.089

ALPHA electronic WIRE

ALPHA MILITARY HOOK-UP WIRE

MIL-W-16878C WIRE

HIGH TEMPERATURE PLASTIC HOOK-UP WIRE

Single conductor stranded tinned copper, 105°C. high temperature vinyl thermoplastic light wall insulation. Nylon jacket over plastic insulation, where specified. Available in nineteen colors. Specification MIL-W-16878C. Standard spool put-up: 100 ft.. 1000 ft. Applications: For miniature and sub-miniature high temp. hook-ups. **Specify color.**

TYPE B—600V UNCOVERED PLASTIC

Nominal Insulation .010" Stock Colors—1 thru 19

Stk. No.	Alp. No.	MIL Type	Cond. Size	Cond. Strand	No. O.D.	100 Feet	Per 1000 Ft.		
							1-9	10-24	25-up
37F593	1850	B-32	32	7/40	.028"	**1.31**	**9.96**	**8.47**	**6.77**
37F544	1851	B-30	30	7/38	.032"	**1.22**	**9.14**	**7.78**	**6.22**
37F545	1852	B-28	28	7/36	.035"	**1.15**	**8.73**	**7.43**	**5.94**
37F546	1853	B-26	26	7/34	.038"	**1.25**	**8.81**	**7.99**	**5.99**
37F547	1854	B-24	24	7/32	.043"	**1.21**	**7.59**	**6.45**	**5.16**
37F548	1855	B-22	22	7/30	.049"	**1.25**	**8.56**	**7.28**	**5.82**
37F549	1856	B-20	20	7/28	.060"	**1.40**	**10.11**	**8.60**	**6.88**
37F570	1857	B-18	18	7/26	.068"	**1.50**	**11.10**	**9.44**	**7.55**
37F571	1858	B-16	16	19/29	.081"	**1.79**	**14.11**	**12.00**	**9.60**
ON TRACER COLORS ADD TO ABOVE						**.11**	**1.11**	**.94**	**.75**

HEAVY TINNED CONDUCTOR (For Induction Heat Soldering)

Single conductor stranded heavy tinned copper, color coded, .010" polyvinylchloride insulation. For use with high frequency generators for induction heat soldering with automatic cutting and stripping equipment. **Available in Colors 1—19. Specify Color.**

Stk. No.	Alp. No.	MIL Type	Cond. Size	Cond. Strand	No. O.D.	100 Feet	Per 1000 Ft.		
							1-9	10-24	25-up
37F1011	1754	B-24	24	7/32	.043"	**1.38**	**10.11**	**8.60**	**6.88**
37F1012	1755	B-22	22	7/30	.049"	**1.47**	**11.43**	**9.72**	**7.77**
37F1013	1756	B-20	20	7/28	.060"	**1.64**	**11.73**	**10.83**	**8.66**
37F1014	1757	B-18	18	19/30	.068"	**2.05**	**17.14**	**14.55**	**11.66**
ON TRACER COLORS ADD TO ABOVE						**.11**	**1.11**	**.94**	**.75**

TYPE B—NYLON JACKET

Temp. —55°C. to +115°C. **Avail. in Colors 1—19. Specify Color.**

Stk. No.	Alp. No.	MIL Type	Cond. Size	Cond. Strand	No. O.D.	100 Feet	Per 1000 Ft.		
							1-9	10-24	25-up
37F572	1860	B-32	32	7/40	.032"	**1.50**	**12.07**	**10.27**	**8.26**
37F573	1861	B-30	30	7/38	.036"	**1.47**	**11.43**	**9.96**	**7.96**
37F574	1862	B-28	28	7/36	.039"	**1.38**	**10.88**	**9.17**	**7.33**
37F575	1863	B-26	26	7/34	.042"	**1.52**	**11.34**	**9.64**	**7.70**
37F576	1864	B-24	24	7/32	.047"	**1.44**	**10.20**	**8.67**	**6.94**
37F577	1865	B-22	22	7/30	.053"	**1.54**	**11.34**	**9.64**	**7.33**
37F578	1866	B-20	20	7/28	.065"	**1.64**	**12.16**	**10.34**	**8.27**
37F579	1867	B-18	18	7/26	.075"	**1.96**	**15.26**	**12.98**	**10.38**
37F580	1868	B-16	16	19/29	.087"	**2.39**	**19.59**	**16.65**	**13.32**
ON TRACER COLORS ADD TO ABOVE						**.11**	**1.11**	**.94**	**.75**

TYPE C—UNCOVERED PLASTIC

Stranded tinned copper, color coded .016" polyvinylchloride insulation. Temperature rating —55°C to +105°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moistute, solvents and fungus. **Available in Colors 1—19. Specify Color.**

Stock No.	No. Alp.	MIL Type	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	Net Per 1000 Ft.		
							1-9	10-24	25-49
37F581	1831	C-22	22	7/30	.064"	**1.20**	**9.63**	**8.19**	**6.55**
37F582	1832	C-20	20	7/28	.072"	**1.29**	**12.41**	**10.55**	**8.44**
37F583	1833	C-18	18	7/26	.082"	**1.79**	**16.32**	**13.88**	**11.10**
ON TRACER COLORS ADD TO ABOVE						**.11**	**1.11**	**.94**	**.75**

TYPE C—NYLON JACKET

Stranded tinned copper, color coded .016" polyvinylchloride insulation, clear nylon (polyamide) jacket overall. Temperature rating —55°C to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus. **Available in Colors 1—19. Specify Color.**

Stk. No.	Alp. No.	MIL Type	Cond. Size	Cond. Strand	No. O.D.	100 Feet	Per 1000 Ft.		
							1-9	10-24	25-up
37F584	1841	C-22	22	7/30	.072"	**1.47**	**13.06**	**11.10**	**8.88**
37F585	1842	C-20	20	7/28	.079"	**1.79**	**16.32**	**13.87**	**11.10**
37F586	1843	C-18	18	7/26	.090"	**2.20**	**20.78**	**17.35**	**13.88**
ON TRACER COLORS ADD TO ABOVE						**.11**	**1.11**	**.94**	**.75**

TYPE C—SHIELDED—NYLON JACKET

Stranded tinned copper, white .016" polyvinylchloride insulation, braided tinned copper shield, 90% coverage, clear nylon (polyamide) jacket (which can be striped to order for color identification) overall. Temperature rating —55°C to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus. White only.

37F1030	1471	22	7/30	.098"	**4.65**	**44.06**	**37.47**	**29.97**
37F1031	1472	20	7/28	.105"	**5.06**	**46.52**	**39.55**	**31.64**
37F1032	1473	18	19/30	.115"	**6.27**	**57.12**	**48.56**	**38.85**

TEFLON HOOK-UP WIRE — 600 V 260°C. — TYPE E

Single conductor stranded silver plated copper. Extruded Teflon insulation. Specification MIL-W-16878C. (MIL type designation under this specification given below in "MIL Type" column.) Standard Put-up: 100 ft., 1000 ft. **Specify color.**

TYPE E—EXTRUDED INSULATION—*Stock Colors—1 thru 10

Stock No.	Alpha No.	MIL Type	Cond. Size	Cond. Strand	Nom. Insul.	Nom. O.D.	100 Feet	Net Prices per 1000 ft.	
								1-2	3&up
37F650	2851	E-30	30	7/38	.010"	.032"	**9.15**	**63.69**	**50.95**
37F651	2852	E-28	28	7/36	.010"	.036"	**9.31**	**65.22**	**52.17**
37F652	2853	E-26	26	7/34	.010"	.040"	**9.47**	**66.46**	**53.17**
37F653	2854	E-24	24	19/36	.010"	.045"	**10.38**	**73.95**	**59.16**
37F654	2855	E-22	22	19/34	.010"	.051"	**11.76**	**86.67**	**68.93**
37F655	2856	E-20	20	19/32	.010"	.059"	**14.69**	**110.45**	**88.36**
37F656	2857	E-18	18	19/30	.010"	.070"	**17.30**	**132.92**	**106.34**
37F657	2858	E-16	16	19/29	.010"	.083"	**22.05**	**173.44**	**138.75**

SHIELDED TEFLON CABLES

Each conductor stranded silver plated copper, type E extruded TFE .010" insulation, braided silver plated copper shield over conductor(s). 90% coverage. A .010" Teflon fused tape jacket overall. Temperature rating —65°C to +260°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus. NO OUTER COVERING OVER SHIELD.

Stock No.	Alp. No.	No. Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	Net Per 1000 Ft.	
							1-2	3-4
37F1033	2812	1	22	19/34	.075"	**19.58**	**179.49**	**122.10**
37F1034	2812/2	2	22	19/34	.124"	**40.00**	**383.46**	**260.85**
37F1035	2812/3	3	22	19/34	.132"	**57.12**	**554.78**	**377.40**
37F1036	2812/4	4	22	19/34	.146"	**71.80**	**701.65**	**477.30**
37F1037	2815	1	20	19/32	.083"	**23.18**	**215.40**	**146.52**
37F1038	2815/2	2	20	19/32	.142"	**48.97**	**473.21**	**321.90**
37F1039	2815/3	3	20	19/32	.151"	**66.91**	**652.68**	**444.00**
37F1040	2815/4	4	20	19/32	.168"	**88.13**	**824.81**	**588.30**
37F1041	2818	1	18	19/30	.093"	**27.75**	**261.08**	**177.60**

TEFLON TAPE WRAP JACKET OVER SHIELD

Fused, double reversed wrapped Teflon tape jacket or covering of polyvinychloride, polyethylene and neophrene impregnated into textile braid. To give ideal shielding to cables or individual lines. Will withstand most chemical or element exposure.

Stock No.	Alp. No.	No. Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	1000 Feet
37F1029	2824	1	22	19/34	.090"	**42.43**	**407.93**
37F1042	2824/2	2	22	19/34	.140"	**71.80**	**701.65**
37F1043	2824/3	3	22	19/34	.148"	**99.51**	**979.02**
37F1044	2824/4	4	22	19/34	.162"	**128.92**	**1272.74**
37F1045	2827	1	20	19/32	.099"	**48.97**	**473.21**
37F1046	2827/2	2	20	19/32	.158"	**86.49**	**848.50**
37F1047	2827/3	3	20	19/32	.167"	**117.50**	**1159.79**
37F1048	2827/4	4	20	19/32	.184"	**146.87**	**1452.23**
37F1049	2829	1	18	19/30	.109"	**58.43**	**567.84**
37F1050	2829/2	2	18	19/30	.178"	**94.65**	**930.07**
37F1051	2829/3	3	18	19/30	.189"	**125.65**	**1240.10**
37F1052	2829/4	4	18	19/30	.208"	**161.56**	**1599.08**

GENERAL STOCK COLORS—Check Specific Color Codes shown for each wire type on this page

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

MILITARY WIRE

ALPHA electronic WIRE

MIL-W-76B PLASTIC HOOK-UP WIRE

Hook-up wire with thermoplastic insulation impervious to oils, acids, moisture and flame. Made to MIL-W-76B specifications, (supersedes MIL-W-76A). Nom. insul., .016". Voltage rating, 1000 V. 1 lb. per 100 ft. Temp. —40°C. to +80°C. **Available in colors 1-19. Specify Color.**

TYPE MW (MEDIUM WALL) STRANDED

Stock No.	Alp. No.	MIL Type	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	Net per 1000 ft. 1-9	10-24	25 up
37F500	1550	24 (7)U	24	7/32	.059"	.99	6.85	5.83	4.66
37F501	1551	22 (7)U	22	7/30	.064"	1.15	8.00	6.80	5.44
37F502	1553	20(10)U	20	10/30	.073"	1.38	10.00	8.88	7.10
37F503	1555	18(16)U	18	16/30	.084"	1.79	14.85	17.63	10.10
37F504	1557	16(26)U	16	26/30	.095"	2.53	21.79	18.53	14.82

Stock No.	Alp. No.	MIL Type	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	Net per 1000 ft. 1-4	5-9	10 up
37F505	1159	14(41)U	14	41/30	.110"	3.59	32.89	27.97	22.37
37F506	1560	12(65)U	12	65/30	.125"	5.79	56.12	46.77	31.41
ON TRACER COLORS ADD TO ABOVE						.11	1.11	.94	.75

TYPE MW—SOLID

Stock No.	Alp. No.	MIL Type	Co. Sz.	Nom. O.D.	100 Feet	Net per 1000 ft. 1-9	10-24	25-up
37F507	1561	22(1)U	22	.060"	.99	6.37	5.42	4.33
37F508	1563	20(1)U	20	.066"	1.22	8.64	7.35	5.88
37F509	1565	18(1)U	18	.074"	1.55	12.25	10.42	8.33

TYPE MW—NYLON JACKET

Temp. —40°C. to +90°C. **Available in Colors 1—19. Specify Color.**

Stock No.	Alp. No.	MIL Type	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	Net Per 1000 Ft. 1-9	10-24	25-49
37F526	1504	C22(7)J	22	7/30	.072"	1.31	10.37	8.82	7.05
37F527	1505	C20(10)J	20	10/30	.079"	1.47	11.75	9.99	7.99
37F528	1506	C18(16)J	18	16/30	.090"	2.46	19.58	16.55	13.32
37F529	1507	C16(26)J	16	26/30	.103"	2.94	24.48	20.82	16.65
ON TRACER COLORS ADD TO ABOVE						.11	1.11	.94	.75

TYPE MW—SHIELDED—NYLON JACKET

Temperature rating —40° to +90°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus. **Available in White only.**

37F685	1371	C22(7)SJ	22	7/30	.100"	4.32	41.62	35.39	28.31
37F686	1372	C20(7)SJ	20	7/28	.105"	4.90	43.25	36.78	29.42
37F687	1373	C18(19)SJ	18	19/30	.115"	5.72	53.04	45.10	36.08
37F688	1374	C16(19)SJ	16	19/29	.125"	6.53	62.00	52.73	42.18

TYPE MW—SHIELDED

Available in colors 1—3. Specify Color.

37F513	1350	C24(7)S	24	7/32	.075"	2.46	21.22	28.31	14.43
37F514	1351	C22(7)S	22	7/30	.085"	2.46	22.04	29.42	14.99
37F515	1352	C20(10)S	20	10/30	.095"	2.85	24.48	36.08	16.65
37F516	1353	C18(16)S	18	16/30	.105"	3.26	30.02	42.18	20.42

SEE COLOR CODE BELOW

STOCK COLORS

1-White
2-Black
3-Red
4-Green
5-Yellow
6-Light Blue
7-Brown
8-Orange
9-Gray (slate)
10-Violet (purple)
11-White/Black
12-White/Red
13-White/Green
14-White/Yellow
15-White/Blue
16-White/Brown
17-White/Orange
18-White/Gray
19-White/Violet

MIL-W-19583, MIL-W-5086A AND MIL-C-7078A

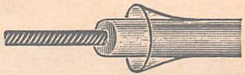
TEFLON INSULATED MAGNET WIRE

Specification MIL-W-19583—Type III

Single conductor round bare copper covered with a continuous insulating film of single layer TFE Teflon to MIL-W-19583-Type III. Temperature Rating —90°C. to +260°C. For coil winding where high temperature insulation is required.

Stock No.	Alpha No.	Cond. Size	Nom. O.D.	NET Per ¼ lb.
37F1053	ST-44	44	.0022"	18.37
37F1054	ST-43	43	.0025"	16.46
37F1055	ST-42	42	.0028"	14.63
37F1056	ST-41	41	.0031"	12.87
37F1057	ST-40	40	.0035"	10.81
37F1058	ST-39	39	.0039"	9.11
37F1059	ST-38	38	.0045"	7.43
37F1060	ST-37	37	.0050"	6.03
37F1061	ST-36	36	.0056"	4.93
37F1062	ST-35	35	.0062"	4.34
37F1063	ST-34	34	.0070"	3.82
37F1064	ST-33	33	.0078"	3.23
37F1065	ST-32	32	.0088"	3.02
37F1066	ST-31	31	.0098"	2.87
37F1067	ST-30	30	.0190"	2.79

AIRCRAFT HOOK-UP WIRE



Specifications MIL-W-5086A and MIL-C-7078A. MIL-W-5086A—Single conductor strand tinned copper, white plastic insulation, nylon jacket overall. Superseding JAN-C-48A. MIL-C-7078A—Single conductor stranded tinned copper, white plastic insulation.

UNSHIELDED (MIL-W-5086A—Type I)

Stock No.	Alp. No.	MIL Type	Co. Sz.	Con. Strand	Nom. O.D.	100 Feet	Net per 1000 ft. 1-4	5-9	10 up
37F532	1381	AN-22	22	19/34	.068"	1.79	12.64	10.75	8.60
37F533	1382	AN-20	20	19/32	.078"	1.96	14.37	12.22	9.77
37F534	1383	AN-18	18	19/30	.088"	2.28	19.26	16.38	13.10
37F535	1384	AN-16	16	19/29	.098"	2.62	22.69	19.29	15.43
37F536	1385	AN-14	14	19/27	.117"	4.41	40.80	34.69	27.75

Stock No.	Alp. No.	MIL Type	Co. Sz.	Con. Strand	Nom. O.D.	100 Feet	Net per 1000 ft. 1-2	3-4	5 up
37F537	1386	AN-12	12	19/25	.137"	6.85	63.21	53.75	43.00
37F683	1387*	AN-10	10	37/25	.189"	9.80	89.79	61.05	....
37F684	1388*	AN- 8	8	133/29	.240"	17.94	163.18	111.00	....

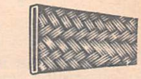
SHIELDING AND BRAIDING

TUBULAR BRAID MIL QQ-B-575

Woven tinned copper braid. Completely round and self-supporting. Shielding coverage is 95% or more.

Stock No.	Alp. No.	I.D.	AWG Equiv.	Cir. MIL	Amp.	100 Ft.
37F1156	2160	1⁄32"	22	640	7.0	**3.59**
37F1157	2162	1⁄16"	19	1290	11.0	**4.41**
37F1158	2164	7⁄64"	16	1620	22.0	**6.21**
37F1159	2166	1⁄8"	15	3260	28.0	**7.35**
37F1160	2168	11⁄64"	14	4100	32.0	**8.17**
37F1161	2170	13⁄64"	11	7640	46.0	**11.11**
37F1162	2172	3⁄8"	10	10400	53.0	**13.88**
37F1163	2174	1⁄2"	9	13100	70.0	**21.90**
37F1164	2176	25⁄32"	7	20900	85.0	**32.33**

Flat Braid



A woven braid composed of tinned copper strands which is rolled flat at the time of manufacture to a specific width. High current carrying capacity. Extremely flexible.

Stock No.	Alp. No.	Flat Width	Thick	AWG Equiv.	Cir. MILS	A.	100 Ft.	1000 Ft.
37F1144	1221	.025	.015	26	250	4.0	**3.27**	**29.39**
37F1145	1222	1⁄32"	.020	24	400	6.0	**3.27**	**30.21**
37F1146	1223	3⁄64"	.020	22	640	7.0	**3.36**	**30.69**
37F1147	1224	3⁄32"	.020	19	1290	11.0	**3.59**	**32.16**
37F1148	1229	1⁄8"	.020	18	1620	16.0	**3.76**	**34.60**
37F1149	1230	3⁄16"	.020	15	3260	25.0	**4.41**	**41.14**
37F1150	1231	1⁄4"	.030	14	4100	32.0	**5.99**	**56.31**
37F1151	1232	3⁄8"	.030	11	8230	46.0	**9.79**	**94.65**
37F1152	1233/2	1⁄2"	.030	10	10400	53.0	**12.42**	**120.75**
37F1153	1233	5⁄8"	.030	10	10400	53.0	**13.06**	**127.29**
37F1154	1234	3⁄4"	.040	7	20900	85.0	**29.23**	**288.50**
37F1155	1235	1"	.045	7	20900	85.0	**31.49**	**306.76**

UNINSULATED TINNED COPPER

MIL-W-3861 Type S-QQ-W-343 Type S-ASTM-B-33

Pure electrolytic soft, drawn, solid, copper properly annealed

Stock No.	Alp. No.	AWG	Cir. MIL	Nom. O.D.	100 Ft.	1000 Ft.
37F1127	299/7	38	15.72	.004"	**.55**	**2.46**
37F1128	299/6	36	25.00	.005"	**.55**	**2.46**
37F1129	299/5	34	39.75	.006"	**.55**	**2.46**
37F1130	299/4	32	63.21	.008"	**.55**	**2.46**
37F1131	299/3	30	100.5	.010"	**.55**	**2.46**
37F1132	299/2	28	159.8	.013"	**.55**	**2.62**
37F1133	299/1	26	254.1	.016"	**.56**	**3.52**
37F1134	299	24	404.0	.020"	**.56**	**3.68**

and tinned for quick soldering. Used for coil winding, ground wire, etc. Meets MIL specs.

Stock No.	Alp. No.	AWG	Cir. MIL	Nom. O.D.	100 Ft.	1000 Ft.
37F1135	298	22	642.4	.025"	**.58**	**3.91**
37F1136	297	20	1022.0	.033"	**.65**	**5.15**
37F1137	296	18	1642.0	.040"	**.99**	**8.00**
37F1138	295	16	2583.0	.051"	**1.23**	**10.78**
37F1139	286	14	4107.0	.065"	**1.64**	**16.32**
37F1140	289	12	6530.0	.082"	**2.53**	**23.83**
37F1141	292	10	10380.0	.103"	**3.10**	**29.81**
37F1142	292/8	8	16510.0	.129"	**7.35**	**69.37**
37F1143	292/6	6	26250.0	.162"	**11.91**	**110.96**

ALPHA electronic WIRE

SHIELDED AUDIO CABLES

INDUSTRIAL CONTROL AND AUDIO CABLE

2 Conductor—No Outer Jacket

Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided tinned copper shield overall. 2 conductors. For public address and sound systems. Transmission line, industrial paging and call systems. Recording equipment. Hospital and school sound installations. Broadcast and audio cable. Rack and panel wiring. *22AWG solid tinned copper ground wire under braided copper shield.

Stock No.	Alp. No.	Wall Thick.	Cond. Size	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
37F1068	1261	.016"	24	16/30	.125"	**4.90**	**22.87**
37F1069	1256/22V	.016"	22	7/30	.140"	**2.94**	**13.54**
37F1070	1256V	.016"	20	10/30	.155"	**2.94**	**13.53**
37F1071	1259V*	.016"	18	16/30	.170"	**5.15**	**24.70**
37F1072	1260V	.020"	16	26/30	.210"	**7.21**	**34.55**
37F1073	1260/14	.020"	14	41/30	.225"	**11.32**	**54.40**
37F1074	1260/12	.025"	12	65/30	.295"	**18.97**	**92.62**

Braided Copper Shield

Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided copper shield—gray polyvinylchloride jacket overall. Suitable for outdoor installation. A conventional type of braided shield providing approximately 75% coverage is particularly desirable where flexibility is required. The copper shield allows ease of pigtail soldering. Shield construction provides additional cable strength. * With 22 AWG solid tinned copper ground wire under braided copper shield.

Stranded

Stock No.	Alp. No.	No. Cond.	Cond. Size	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
37F1075	1736	2	22	7/30	.185"	**4.41**	**20.58**
37F1076	1737	3	22	7/30	.200"	**5.44**	**25.73**
37F1077	1741	2	20	10/30	.200"	**5.74**	**27.21**
37F1078	1742	3	20	10/30	.220"	**6.91**	**33.09**
37F1079	1746	2	18	16/30	.240"	**6.62**	**31.61**
37F1080	1747	3	18	16/30	.245"	**8.38**	**40.43**
37F1081	1748	2	16	26/30	.255"	**9.56**	**44.85**
37F1082	1750	2	14	41/30	.295"	**11.03**	**53.67**

Solid

37F1083	1775*	2	22		.175"	**3.76**	**17.64**
37F1084	1779	2	20		.210"	**5.15**	**24.26**
37F1085	1783	2	18		.220"	**5.96**	**28.31**

SHIELDED MICROPHONE CABLE

Neoprene Jacket—Heavy Duty

2280

1449

1716

Each conductor stranded tinned copper, color coded rubber insulation, cotton wrap, braided tinned copper shield, cotton wrap, tough black neoprene jacket overall. Shielded microphone and electronic power cable. Control circuits. Video and Audio interconnecting cable. Broadcast and heavy studio use. Oil and acid resistant. Suitable for outdoor use and direct burial. Will resist aging and rough usage.

Stock No.	Alp. No.	No. Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
37F689	1449	1	18	41/34	.250"	**11.03**	**52.78**
37F690	1450	2	18	41/34	.305"	**15.29**	**74.25**
37F691	1451	3	18	41/34	.325"	**21.61**	**105.64**
37F692	1452	4	18	41/34	.335"	**24.48**	**120.11**
37F470	1450/16	2	16	65/34	.345"	**19.70**	**96.29**
37F471	1451/16	3	16	65/34	.365"	**25.30**	**124.24**
37F472	1452/16	4	16	65/34	.390"	**30.13**	**148.18**

Spiral Wrapped Copper Shield

Each conductor stranded or solid tinned copper, color coded polyvinylchloride insulation, conductors twisted, spiral wrapped copper shield, gray polyvinylchloride jacket overall. Provides close to 100% shielded coverage for audio and RF frequencies.

Stock No.	Alp. No.	No. Cond.	Cond. Size	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
37F1086	2254	2	22	7/30	.195"	**3.32**	**13.23**
37F1087	2254/3	3	22	7/30	.190"	**4.56**	**21.33**
37F1088	2255	2	22	7/30	.170"	**2.87**	**11.03**
37F1089	2256/1†	1	20	10/30	.130"	**3.46**	**15.81**
37F1090	2256	2	20	10/30	.195"	**3.68**	**16.91**
37F1091	2256/3†	3	20	10/30	.210"	**5.00**	**23.52**
37F1092	2258	2	18	16/30	.230"	**4.34**	**19.63**
37F1093	2258/3	3	18	16/30	.235"	**5.29**	**24.70**

† 2256/1 formerly 2156, 2256/3 formerly 3256.

Mylar Supported Aluminum Foil Shield

Each conductor stranded tinned copper, color coded polyethylene insulation, conductors twisted with a stranded #22-7/30 tinned copper drain wire shield, mylar tape with aluminum on both sides is applied longitudinally for 100% shielding coverage, gray polyvinylchloride jacket overall.

Stock No.	Alp. No.	No. Cond.	Cond. Size	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
37F1094	2272	2	22	7/30	.190"	**2.94**	**11.76**
37F1095	2276	2	20	10/30	.200"	**3.38**	**15.44**
37F1096	2278	2	18	16/30	.220"	**4.27**	**18.64**

Conductive Vinyl as Shield

Each conductor stranded tinned copper, color coded polyethylene insulation, #22-7/30 tinned copper drain wire under conductive vinyl and cabled with conductors. .010" extruded conductive vinyl shield. .020" polyvinylchloride jacket overall. Conductive vinyl shields provide 100% coverage with reduced noise pick-up, eliminates broken ends of copper when flexed.

Stock No.	Alp. No.	No. Cond.	Cond. Size	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
37F1097	2280	1	20	10/30	.160"	**4.34**	**20.29**
37F1098	2282	2	20	10/30	.200"	**6.03**	**28.75**
37F1099	2284	3	20	10/30	.210"	**6.84**	**32.79**

SHIELDED MULTI-CONDUCTOR CABLE

Plastic Jacket—Heavy Duty

Each conductor stranded tinned copper, color coded polyethylene insulation, cabled with fillers, wrap, braided tinned copper shield, gray polyvinylchloride jacket overall.

Stock No.	Alp. No.	No. Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
37F473	1716	5	20	26/34	.275"	**9.78**	**44.83**
37F474	1717	6	20	26/34	.300"	**18.39**	**89.68**
37F475	1719	8	20	26/34	.330"	**22.79**	**110.99**
37F476	1721	10	20	26/34	.375"	**26.61**	**130.11**

Neoprene Jacket—Heavy Duty

Each conductor stranded tinned copper, color coded rubber insulation, conductors cabled with fillers, cotton wrap, braided tinned copper shield, cotton wrap, tough black neoprene jacket overall. Designed for outdoor rough usage as interconnecting cables for electronic equipment, control cables for generator units, video and audio interconnecting cables, and for ground support equipment related to guided missile systems.

Stock No.	Alp. No.	No. Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
37F693	1454	6	18	41/34	.430"	**41.76**	**206.55**
37F478	1456	8	18	41/34	.465"	**53.52**	**265.35**
37F479	1458	10	18	41/34	.545"	**63.80**	**316.79**
37F480	1459	12	18	41/34	.625"	**83.07**	**413.08**

LOOK TO NEWARK FOR ALL YOUR CABLE AND WIRE NEEDS

IMMEDIATE DELIVERY FROM "ON THE SHELF" STOCK

JUST WRITE US YOUR REQUIREMENTS

RETRACTILE AND STRAIGHT CORD

ALPHA electronic WIRE

RETRACTILE POWER CORDS

Retracted lengths 2 & 4 feet, extended lengths 12 & 25 feet. Neoprene jacket, U.L. approved. Conductors are color coded. *If all four conductors normally carry current amp. rating is as shown. If one lead is used as ground, amp rating is the same as 2 and 3 conductor cords.

2 Foot Lengths

Stock No.	Alp. No.	No. Co.	Co. Sz.	Cond. Strand	U.L. Type	A.	V.	1-9	10-24	25-49	50-99
37F416	660/2	2	18	41/34	SVO	7	300	3.08	2.77	2.57	2.31
37F417	661/2	2	18	41/34	SJO	7	300	3.38	3.04	2.82	2.54
37F418	662/2	3	18	41/34	SJO	7	300	4.28	3.85	3.57	3.21
37F419	*663/2	4	18	41/34	SJO	5.6	300	4.80	4.32	4.00	3.60
37F420	664/2	2	16	65/34	SJO	10	300	4.05	3.64	3.38	3.04
37F421	665/2	3	16	65/34	SJO	10	300	5.10	4.59	4.25	3.82
37F422	*666/2	4	16	65/34	SJO	8	300	6.08	5.47	5.07	4.06
37F423	670/2	3	16	65/34	SO	10	600	6.83	6.15	5.69	5.12
37F424	*671/2	4	16	65/34	SO	8	600	7.53	6.82	6.32	5.69
37F425	672/2	2	14	41/30	SO	15	600	7.43	6.69	6.19	5.57
37F426	673/2	3	14	41/30	SO	15	600	8.40	7.56	7.00	6.30
37F427	*674/2	4	14	41/30	SO	12	600	8.85	7.96	7.36	6.62
37F428	675/2	2	12	65/30	SO	20	600	11.33	10.20	9.44	8.50
37F429	676/2	3	12	65/30	SO	20	600	14.93	13.44	12.44	11.20
37F430	*677/2	4	12	65/30	SO	16	600	15.75	14.17	13.13	11.82

4 Foot Lengths

Stock No.	Alp. No.	No. Co.	Co. Sz.	Cond. Strand	U.L. Type	A.	V.	1-9	10-24	25-49	50-99
37F431	660/4	2	18	41/34	SVO	7	300	5.55	5.00	4.63	4.17
37F432	661/4	2	18	41/34	SJO	7	300	6.15	5.54	5.13	4.62
37F433	662/4	3	18	41/34	SJO	7	300	8.03	7.23	6.69	6.02
37F434	*663/4	4	18	41/34	SJO	5.6	300	9.00	8.10	7.50	6.75
37F435	664/4	2	16	65/34	SJO	10	300	7.58	6.82	6.37	5.73
37F436	665/4	3	16	65/34	SJO	10	300	9.60	8.64	8.00	7.20
37F437	*666/4	4	16	65/34	SJO	8	300	11.55	10.39	9.63	8.67
37F438	670/4	3	16	65/34	SO	10	600	12.98	11.68	10.82	9.74
37F439	*671/4	4	16	65/34	SO	8	600	14.48	13.03	12.07	10.86
37F440	672/4	2	14	41/30	SO	15	600	14.33	12.90	11.94	10.75
37F441	673/4	3	14	41/30	SO	15	600	16.28	14.65	13.57	12.21
37F442	*674/4	4	14	41/30	SO	12	600	17.10	15.39	14.25	12.82
37F443	675/4	2	12	65/30	SO	20	600	22.05	19.84	18.36	16.52
37F444	676/4	3	12	65/30	SO	20	600	29.25	26.32	24.36	21.92
37F445	*677/4	4	12	65/30	SO	16	600	30.90	27.81	25.75	23.17

RETRACTILE COMMUNICATION CORDS

Retracted lengths 2 & 4 feet, extended lengths 12 & 25 feet. Used in communication equipment such as mobile radio equipment, etc. Conductors are color coded for easy identification. Rated at 1 amp., 120 volts.

2 Foot Lengths

Stock No.	Alp. No.	No. Co.	Co. Sz.	Cond. Strand	1-9	10-24	25-49	50-99
37F446	680/2	2	23	21/36	2.40	2.16	2.00	1.80
37F447	681/2	3	23	21/36	2.70	2.43	2.25	2.03
37F448	682/2	4	23	21/36	3.38	3.04	2.82	2.54
37F449	683/2	5	23	21/36	4.43	3.99	3.69	3.32
37F450	684/2	6	23	21/36	5.40	4.86	4.50	4.05
37F451	685/2	7	23	21/36	6.08	5.47	5.07	4.56

4 Foot Lengths

Stock No.	Alp. No.	No. Co.	Co. Sz.	Cond. Strand	1-9	10-24	25-49	50-99
37F452	680/4	2	23	21/36	4.50	4.05	3.75	3.37
37F453	681/4	3	23	21/36	5.25	4.72	4.36	3.92
37F454	682/4	4	23	21/36	6.15	5.53	5.13	4.62
37F455	683/4	5	23	21/36	8.25	7.42	6.88	6.19
37F456	684/4	6	23	21/36	10.20	9.18	8.50	7.65
37F457	685/4	7	23	21/36	11.55	10.39	9.63	8.67

SHIELDED RETRACTILE COMMUNICATION CORDS

Retracted lengths 2 and 4 feet, extended lengths 12 and 25 feet. Same as coiled communication cords except that shielded conductors are individually shielded with a cadmium copper shield. Shield can be pigtailed for soldering.

2 Foot Lengths

Stock No.	Alp. No.	No. Co.	Co. Sz.	Cond. Strand	Shield.	1-9	10-24	25-49	50-99
37F458	690/2	1	24	41/40	Shielded	3.75	3.37	3.16	2.84
37F459	692/2	2	1-23	21/36	Unshielded				
			1-24	41/40	Shielded	5.03	4.53	4.19	3.77
37F460	694/2	3	2-23	21/36	Unshielded				
			1-24	41/40	Shielded	7.05	6.34	5.88	5.28
37F461	696/2	4	2-23	21/36	Unshielded				
			2-24	41/40	Individually Shielded	8.10	7.29	6.75	6.07

4 Foot Lengths

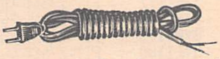
Stock No.	Alp. No.	No. Co.	Co. Sz.	Con. Strand	Shield.	1-9	10-24	25-49	50-99
37F462	690/4	1	24	41/40	Shielded	6.90	6.21	5.75	5.17
37F463	692/4	2	1-23	21/36	Unshielded				
			1-24	41/40	Shielded	9.45	8.50	7.88	7.09
37F464	694/4	3	2-23	21/36	Unshielded				
			1-24	41/40	Shielded	13.50	12.15	11.25	10.12
37F465	696/4	4	2-23	21/36	Unshielded				
			2-24	41/40	Individually Shielded	15.60	14.04	13.00	11.70

RETRACTILE POWER CORD SETS

Retracted length 18", extended length 7½ feet. Has a molded male plug on one end and exposed stripped conductors on the other end. Conductors are color coded. U.L. approved.

Stock No.	Alp. No.	No. Co.	Co. Sz.	Cond. Strand	U.L. Type	1-9	10-24	25-49	50-99
37F1100	654	2	18	41/34	SVO	2.93	2.64	2.44	2.20
37F1101	655	2	18	41/34	SJO	3.38	3.04	2.82	2.54
37F1102	656	3	18	41/34	SIO	4.95	4.45	4.13	3.72
37F1103	657	2	16	65/34	SJO	3.68	3.31	3.07	2.76
37F1104	658	3	16	65/34	SJO	5.48	4.93	4.57	4.11

REPLACEMENT STRAIGHT CORD SETS



2 conductor black rubber cord with black molded plastic plug on one end, the other end has stripped conductors. They are U.L. and CSA approved. Can be used for business machines, small electrical tools, and home appliances. 300 volt rating.

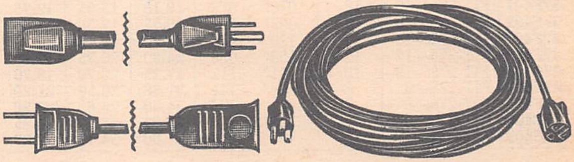
Stock No.	Alp. No.	Co. Sz.	Cond. Strand	U.L. Type	Cord Lgth.	1-9	10-24	25-49	50-99
37F1107	600	18	41/34	SV	6	.50	.45	.42	.38
37F1108	602	18	41/34	SV	9	.60	.54	.50	.45
37F1109	604	18	41/34	SV	12	.72	.65	.60	.54
37F1110	606	18	16/30	SJ	8	.62	.56	.52	.47
37F1111	608	18	16/30	SJ	10	.71	.64	.58	.52
37F1112	610	16	26/30	SJ	8	.72	.65	.60	.54
37F1113	612	16	26/30	SJ	10	.83	.75	.69	.62

NEWARK HAS SEVEN GIANT WAREHOUSES
TO GIVE YOU FAST, DEPENDABLE SERVICE
FOR ALL YOUR ELECTRONIC NEEDS

RETRACTILE TEST LEAD WIRE

A high grade quality rubber insulation for maximum flex life extruded over a single conductor of extra flexible tinned copper which gives long life to this retractile test lead wire. Available in a 12" retracted length with a 6" straight lead on each end, the cord extends to approximately 6 feet.

Stock No.	Alp. No.	Co. Sz.	Cond. Strand	Amp	Volt.	Col.	1-9	10-24	25-49	50-99
37F1105	650	20	41/36	4	4000	Blk.	.77	.69	.64	.58
37F1106	650	20	41/36	4	4000	Red	.77	.69	.64	.58



EXTENSION CORD SETS

2 or 3 conductor cords with black molded plastic male and female plug on either end. 3 conductor cords have 3 pronged plugs. 15 Amps, 125 Volts. Application: Small business machines, vacuum cleaners, lamps, movie projectors, or any other home appliance. 3 conductor cord used when 1 conductor requires grounding. UL and CSA approved.

Stock No.	Alp. No.	Co. Sz.	Cond. Strand	No. Co.	UL No.	Cord Lgth.	1-9	10-24	25-49	50-99
37F1114	620	18	41/34	2	SV	6	.54	.49	.45	.41
37F1115	622	18	41/34	2	SV	9	.66	.60	.55	.50
37F1116	624	18	16/30	2	SJ	10	.81	.73	.67	.61
37F1117	626	18	16/30	2	SJ	25	1.88	1.70	1.57	1.42
37F1118	628	16	26/30	2	SJ	10	.90	.81	.75	.68
37F1119	630	16	26/30	2	SJ	25	2.63	2.37	2.19	1.98
37F1120	632	16	26/30	2	SJ	50	3.68	3.32	3.07	2.77
37F1121	634	16	26/30	2	SJ	100	6.75	6.07	5.63	5.07
37F1122	636	18	16/30	3	SJ	10	1.13	1.02	.97	.95
37F1123	638	18	16/30	3	SJ	25	2.31	2.08	1.93	1.87

ALPHA electronic WIRE

TUBING

PVC-105 TUBING

Conforms to MIL-I-631C, ASTM-D876, ASTM-D922. Dielectric strength 800V per MIL. 105°C temp. rating. Nonflammable. Tensile strength: 2500 psi. Insulation resistance: over 1,000,000 megs. Size No. 24 to ⅝" stocked in 25' & 100' coils, ¾" & larger stocked in 25' and 50' coils. Longer continuous runs available special order. Wt., 2 lb. per 100 ft. **Specify Color.**

Colors—1 thru 9. Per 100' prices except for 25'

Stk. No.	Type	Size	I.D.	25'	100'	1000'-4999'	5000'-9999'	10000'-24999'
37F600	105-24	24	.022"	.65	1.61	1.30	1.08	.70
37F601	105-22	22	.027"	.66	1.62	1.31	1.09	.71
37F602	105-20	20	.034"	.67	1.66	1.35	1.11	.73
37F603	105-18	18	.042"	.68	1.73	1.38	1.14	.80
37F604	105-16	16	.053"	.71	1.85	1.46	1.21	.87
37F605	105-14	14	.066"	.75	1.99	1.54	1.28	.93
37F606	105-12	12	.085"	.79	2.14	1.66	1.38	1.02

Colors—1 thru 5 and 8

Stk. No.	Type	Size	I.D.	25'	100'	1000'-4999'	5000'-9999'	10000'-24999
37F607	105-10	10	.106"	.83	2.31	1.85	1.55	1.12
37F608	105-8	8	.133"	1.10	3.39	2.66	2.23	1.57
37F609	105-6	6	.166"	1.23	3.91	3.02	2.51	1.73
37F610	105-4	4	.208"	1.40	4.58	3.47	2.84	1.97
37F611	105-2	2	.263"	1.59	5.34	4.00	3.32	2.33
Colors—1 and 2								
37F612	105-5⁄16"	5⁄16"	.312"	2.11	7.44	5.44	4.64	3.40
37F613	105-0	0	.330"	1.81	6.23	4.64	3.89	2.80
37F614	105-⅜"	⅜"	.375"	2.40	8.59	6.41	5.49	4.01
37F615	105-½"	½"	.500"	2.91	10.64	8.07	6.87	5.13
37F616	105-⅝"	⅝"	.625"	4.08	15.30	11.73	9.83	7.42
37F617	105-¾"	¾"	.750"	5.53	21.12	16.09	13.44	10.26
37F618	105-⅞"	⅞"	.875"	6.18	23.74	18.38	15.31	11.64
37F619	105-1"	1"	1.000"	6.78	26.53	20.52	17.00	13.12
37F620	105-1¼"	1¼"	1.250"	9.44	36.78	28.58	23.89	18.53
37F637	105-1⅜"	1⅜"	1.375"	10.07	39.31	30.29	25.33	19.75
37F621	105-1½"	1½"	1.500"	12.20	47.67	36.78	31.11	24.36

Stock Colors—Specify Color.

1—Clear	3—Red	5—Green	7—Brown	9—Orange
2—Black	4—Yellow	6—Blue	8—White	

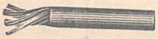
TFT200—TEFLON EXTRUDED TUBING

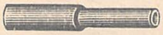
Size No. 30 thru No. 8—Natural, Black, Red, Yellow. No. 6 thru No. 0—Natural only. Specify color.

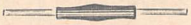
Stock No.	Alpha No.	Size	Nom. ID	Price per ft.	25 Ft. Coil ea.	Per 100 Feet 100-199	200-499	500-999
37F488	TFT-200/30	30	.012"	.14	2.93	9.80	7.00	6.30
37F489	TFT-200/28	28	.015"	.12	2.57	8.46	6.04	5.58
37F490	TFT-200/26	26	.018"	.12	2.52	8.26	5.90	5.30
37F491	TFT-200/24	24	.022"	.13	2.65	8.76	5.90	5.30
37F492	TFT-200/22	22	.027"	.14	3.07	10.50	7.50	6.40
37F493	TFT-200/20	20	.034"	.18	4.06	14.53	10.38	8.68
37F494	TFT-200/18	18	.042"	.21	4.65	16.96	12.08	10.07
37F495	TFT-200/16	16	.053"	.23	5.15	19.00	14.10	11.75

Stk. No.	Alpha No.	Size	Nom. ID	Price per ft.	25 Ft. Coil ea.	Per 100 Feet 100-199	200-499	500-999
37F496	TFT-200/14	14	.066"	.27	5.94	22.20	16.45	13.70
37F481	TFT-200/12	12	.085"	.31	6.76	25.58	20.00	16.02
37F482	TFT-200/10	10	.106"	.37	8.22	30.50	23.10	18.32
37F483	TFT-200/8	8	.133"	.42	9.52	36.80	31.00	27.20
37F484	TFT-200/6	6	.166"	.47	10.69	41.60	36.80	32.40
37F485	TFT-200/4	4	.208"	.56	12.70	49.80	43.60	39.95
37F486	TFT-200/2	2	.263"	.67	15.64	61.80	53.90	49.45
37F487	TFT-200/0	0	.330"	.81	19.16	76.20	66.60	61.10

ALPHLEX HEAT SHRINKABLE TUBING







Tubing is supplied in expanded form and easily slips over the object to be covered. When the temperature of approximately 275°F is applied the tubing immediately returns to its predetermined size, approximately ⅓ smaller. It the forms a permanent tight fitting mechanical bond, even over irregularly shaped materials. It insulates, jackets and splices. For tight fitting cover select the tubing whose expanded size is larger than the object and whose recovered size is smaller.

PRICES ARE PER 100 FT. SUPPLIED IN 4 FT. LENGTHS.

Stock No.	Alpha No.	Size	I.D. Before Ht.	I.D. After Ht.	1-4 Pkgs.	5-9 Pkgs.	10 Pkgs. Up
37F398	FIT-275—24	24	.050"	.027"	16.00	13.35	10.70
37F399	FIT-275—22	22	.055"	.032"	16.70	13.90	11.10
37F400	FIT-275—20	20	.060"	.039"	17.50	14.60	11.70
37F401	FIT-275—18	18	.076"	.049"	19.15	15.95	12.75
37F402	FIT-275—16	16	.093"	.061"	20.75	17.30	13.85
37F403	FIT-275—14	14	.120"	.072"	22.70	18.90	15.10
37F404	FIT-275—12	12	.153"	.089"	24.80	20.75	16.60
37F405	FIT-275—10	10	.191"	.112"	27.25	22.70	18.20
37F406	FIT-275—8	8	.240"	.141"	31.80	26.50	21.20
37F407	FIT-275—6	6	.302"	.178"	34.30	28.60	22.90
37F408	FIT-275—4	4	.348"	.224"	37.30	31.10	24.85
37F409	FIT-275—2	2	.430"	.275"	41.00	34.15	27.30

PRICES ARE PER 20 FT. SUPPLIED IN 4 FT. LENGTHS

Stk. No.	Alpha No.	Size	I.D. before Ht.	I.D. after Ht.	1-4 Pkgs.	5-9 Pkgs.	10 Pkgs. Up
37F410	FIT-275—5⁄16	5⁄16"	.500"	.334"	8.92	7.43	6.46
37F411	FIT-275—⅜	⅜"	.600"	.399"	11.11	9.26	8.03
37F412	FIT-275—7⁄16	7⁄16"	.693"	.462"	14.09	11.74	10.20
37F413	FIT-275—½	½"	.787"	.524"	16.30	13.58	11.80
37F414	FIT-275—⅝	⅝"	.982"	.655"	19.40	16.17	14.08
37F397	FIT-275—¾	¾"	1.180"	.786"	23.09	19.24	16.70
37F396	FIT-275—⅞	⅞"	1.365"	.911"	27.31	22.76	19.80
37F395	FIT-275—1	1"	1.555"	1.036"	32.21	26.84	23.28

STOCK COLORS—SPECIFY COLOR WHEN ORDERING.

Size #24 thru #4—Black, Red, White, Yellow.
Size #2 thru #1—Black only.

●..*NEW* HEAT SHRINKABLE TUBING PACKAGES

Complete selection of Alphlex FIT-275 irradiated polyoefin heat shrinkable tubing in small quantity assortments. Designed for laboratory prototype, design, or electronic service applications. All assortments are packaged and labeled for easy handling and storage. Packaged in 6" lengths. one size per box. Black.

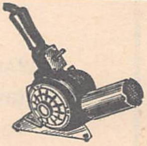
Stk. No.	Type	Size	Lengths Per Box	NET
37F1165	FIT-275M-24	24	40	**3.75**
37F1166	FIT-275M-22	22	36	
37F1167	FIT-275M-20	20	34	
37F1168	FIT-275M-18	18	32	
37F1169	FIT-275M-16	16	30	
37F1170	FIT-275M-14	14	28	
37F1171	FIT-275M-12	12	24	
37F1172	FIT-275M-10	10	20	
37F1173	FIT-275M-8	8	18	
37F1174	FIT-275M-6	6	18	
37F1175	FIT-275M-4	4	16	
37F1176	FIT-275M-2	2	12	
37F1177	FIT-275M-5⁄16	5⁄16"	10	
37F1178	FIT-275M-⅜	⅜"	10	
37F1179	FIT-275M-7⁄16	7⁄16"	8	
37F1180	FIT-275M-½	½"	6	
37F1181	FIT-275M-⅝	⅝"	6	

● *NEW* SHRINKABLE TUBING ASSORTED SIZES

Contains an assortment of 6" lengths of shrinkable tubing in various sizes. Every length identifies as to size. Supplied in black only.

Stk. No.	Type	Tubing Size Range	Lengths Per Box	NET
37F1182	FIT-275MS-1	#24 thru #10 (8 sizes)	4 lengths per size (32 lengths)	**3.75**
37F1183	FIT-275MS-2	#8 thru ⅝" (9 sizes)	2 lengths per size (18 lengths)	**7.50**
37F1184	FIT-275MS-3	¾" thru 1" (3 sizes)	2 lengths per size (6 lengths)	**6.00**

HEAT GUN

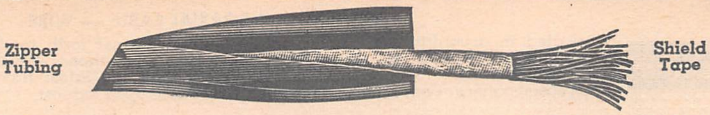


Model HG-1. Produces just the right amount of heat required to shrink Alphlex tubing to its predetermined size. Does away with ovens, open flames, and hot liquids. Completely safe.
37F415. Net...**41.25**

NEWARK can supply all Alpha Wire products.
Call NEWARK for all your wire, tubing and cord needs.

ALPHA TUBING, CORD AND TAPE

ALPHA electronic WIRE



ZIPPER TUBING

The new plastic tubing equipped with a longitudinal plastic zipper that eliminates the arduous and costly work of lacing and tying of harness assemblies in the aircraft, electrical and electronic industries. Alpha Zipper Tubing is an entirely new method of encasing wires and cables. It eliminates the need for tying or taping the conductors in forming cables. It can be opened and closed any time, so the conductors are readily accessible. Zipper Tubing may also be permanently sealed to protect the conductors against moisture or abrasion.

20 MIL wall thickness. Vinyl per specification MIL-I-631C. For ease in closing use tubing size ¼" larger than O.D. of wires to be covered. One metal slider supplied with every 25 feet. Other colors available on Special order. Stocked in the underflap construction. 100 ft. spools. Specify Black or Clear. **Prices are Per Foot.**

Black No.	Clear No.	Type No.	Dia.	100'	1000'-4999'	5000'-14,999'	15,000'-29,000'
37F642	37F622	31-½"	½"	.34	.29	.28	.26
37F643	37F638	31-⅝"	⅝"	.345	.295	.285	.265
37F644	37F623	31-¾"	¾"	.35	.30	.29	.27
37F645	37F639	31-⅞"	⅞"	.36	.305	.295	.275
37F646	37F624	31-1"	1"	.36	.31	.30	.28
37F647	37F640	31-1⅛"	1⅛"	.375	.32	.31	.29
37F648	37F625	31-1¼"	1¼"	.38	.325	.315	.295
37F649	37F626	31-1½"	1½"	.395	.34	.33	.31
37F662	37F627	31-1¾"	1¾"	.41	.35	.34	.32
37F663	37F628	31-2"	2"	.42	.36	.35	.33

SPECIAL SEALER TYPE PB-200

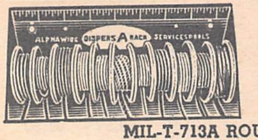
No.	Type	Capacity	NET
37F632	PB-200	1 oz.	.35
37F633	PB-200	2 oz.	.60
37F634	PB-200	4 oz.	1.00
37F635	PB-200	1 qt.	5.00
37F636	PB-200	1 gal.	13.50

● *NEW* ALPHLEX SHIELD TAPE

Flexible aluminum foil laminated to a Mylar film with a pressure sensitive adhesive back. For use on any terminated, connected wire or cable before it is placed in equipment, or after it is wired into the circuit. Flexibility allows application over any shape of wire cable termination or assembly. Special grounding rivets used with a suitable gauge of wire may be used to obtain a permanent ground connection. Four grounding rivets are included with every 100 feet.

Stk. No.	Alphlex Part No.	Foil Width	Cable O.D. Range	Per 100' 1-9	10-24	25-49
37F1185	ASF-1¼	1¼"	Under ¼"	7.50	6.75	5.75
37F1186	ASF-1⅝	1⅝"	From ¼" to ⅜"	9.00	8.00	7.00
37F1187	ASF-2¼	2¼"	From ⅜" to ⅝"	13.50	12.00	10.50
37F1188	ASF-3¼	3¼"	From ⅝" to 1"	18.00	16.00	14.00
37F1189	ASF-4	4"	From 1" to 1¼"	22.50	20.00	17.50
37F1190	ASF-4½	4½"	From 1¼" to 1⅜"	27.00	24.00	21.00
37F1191	GLR-1	Grounding lead and rivet	lots of 12 Net 1.50			

ALPHA SYNTHETIC LACING CORD AND TAPES


ALPHAWIRE DISPERS A RACK SERVICESPOOLS

ALPHA synthetic lacing cords and tapes are manufactured in two basic types (round and flat braided) in nylon with various finishes.

MIL-T-713A ROUND TWISTED NYLON

MW WAX, Type P Twine

No.	Type	Color	Yards Per 8 oz.	Tensile Strength	8 Oz. Spool
37F672	LC-113	White	325	70 lbs.	4.41
37F673	LC-113	Black	325	70 lbs.	5.15
37F674	LC-114	White	475	48 lbs.	4.41
37F675	LC-114	Black	475	48 lbs.	5.15
37F676	LC-115	White	700	32 lbs.	4.41
37F677	LC-115	Black	700	32 lbs.	5.15

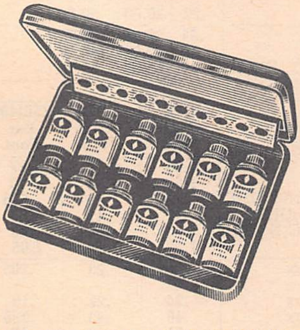
FLAT, BRAIDED NYLON

This construction was developed to prevent the "cold-flow" that is often encountered in wire having plastic or rubber insulation. Creates wider contact area with the insulation so that it does not flow away from the contact point. Conforms to MIL-T-713A, formerly JAN-T-713. 3/32" size, .014" thick. 50 lb. test.

No.	Type	Color	Finish	500 yd. Spool
37F668	LC-136	White	Wax	7.89
37F669	LC-136	Black	Wax	8.53
37F670	LC-140	White	Rubber	7.89
37F671	LC-140	Black	Rubber	8.53

ALPHA-TEMPIL TEMPERATURE INDICATORS

Tells you instantly when any critical temperature is reached! Gives you better than 1% accuracy. Lasts indefinitely. Ideal for monitoring metal-to-glass sealing temperatures of vacuum tubes . . . simulating heat dissipation tests . . . safeguarding against hot spots in environmental testing ovens . . . detecting over loads in power switches and electrical equipment! Complete temperature profiles of any component can be determined by using several different Tempilstik or Tempilaq markings.



TEMPERATURE INDICATING KIT

ALPHA TEMPERATURE INDICATING KITS

Complete kit consists of ten ½ oz. bottles of Tempilaq and 20 samples of Tempilstik . . . all in a variety of temperature ranges. In handy metal storage case.

Stock No.	Type	Temperature Range	NET
37F1202	TEMP-200	175°F (79°C) to 294°F (146°C)	18.00
37F1201	TEMP-300	300°F (149°C) to 388°F (198°C)	
37F1200	TEMP-400	400°F (204°C) to 525°F (274°C)	

TEMPILAQ (Liquid) 2 oz. Bottles

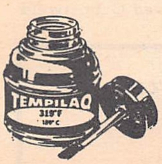
Stk. No.	Type	F°	C°	NET
37F1230	LAQ-175	175	79	2.00
37F1231	LAQ-200	200	93	
37F1232	LAQ-213	213	101	
37F1233	LAQ-225	225	107	
37F1234	LAQ-250	250	121	
37F1235	LAQ-263	263	128	
37F1236	LAQ-275	275	135	
37F1237	LAQ-288	288	142	
37F1238	LAQ-294	294	146	
37F1239	LAQ-300	300	149	
37F1240	LAQ-306	306	152	
37F1241	LAQ-313	313	156	
37F1242	LAQ-319	319	159	
37F1243	LAQ-325	325	163	
37F1244	LAQ-331	331	166	
37F1245	LAQ-338	338	170	
37F1246	LAQ-350	350	177	
37F1247	LAQ-363	363	184	
37F1248	LAQ-375	375	191	
37F1249	LAQ-388	388	198	
37F1250	LAQ-400	400	204	
37F1251	LAQ-425	425	218	
37F1252	LAQ-450	450	232	
37F1253	LAQ-475	475	246	
37F1254	LAQ-500	500	260	

37F1229. Thinner for use with above.
NET..**$1.00**

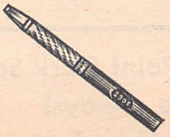
TEMPILSTIK (Solid) 5½" Long

Stk. No.	Type	F°	C°	NET
37F1204	STIK-175	175	79	2.00
37F1205	STIK-200	200	93	
37F1206	STIK-213	213	101	
37F1207	STIK-225	225	107	
37F1208	STIK-250	250	121	
37F1209	STIK-263	263	128	
37F1210	STIK-275	275	135	
37F1211	STIK-288	288	142	
37F1212	STIK-294	294	146	
37F1213	STIK-300	300	149	
37F1214	STIK-306	306	152	
37F1215	STIK-313	313	156	
37F1216	STIK-319	319	159	
37F1217	STIK-325	325	163	
37F1218	STIK-331	331	166	
37F1219	STIK-338	338	170	
37F1220	STIK-350	350	177	
37F1221	STIK-363	363	184	
37F1222	STIK-375	375	191	
37F1223	STIK-388	388	198	
37F1224	STIK-400	400	204	
37F1225	STIK-425	425	218	
37F1226	STIK-450	450	232	
37F1227	STIK-475	475	246	
37F1228	STIK-500	500	260	

37F1203. Holders for use with above.
NET..**50c**



TEMPILAQ
2 oz. Bottle



TEMPILSTIK
5½" Long

AMPHENOL COAXIAL CABLE

NEWARK STOCKS COMPLETE LINES OF WIRE AND CABLE

AMPHENOL — COAXIAL CABLE — WIRE

Fabricated in accordance with the rigid requirements set forth in the **latest military specs.** Polyethylene dielectric for general RF and HF applications. Teflon permits operation at temperatures from —73°C to +200°C. All cables meet the latest Navy, Air Force and Signal Corps specifications. Connector selection chart available upon request.

RG-/U COAXIAL CABLES—Polyethylene and Teflon Dielectrics

Stock No.	RG-/U No.	Jacket O.D.	Dielectric O.D.	Dielectric Type	Center Cond.	V.P. %	Cap. MMF/FT	Max. Oper. V RMS	Nom. IMP Ohms	Uses Connector Series	Per Ft.	100 Ft.	500 Ft.	1000 Ft.
36F1100	5B/U	.328	.181	P	16S	65.9	28.5	3000	50	N,C	**.31**	**28.10**	**126.50**	
36F1101	6A/U	.332	.185	P	21CW	65.9	20	2700	75	N,C	**.21**	**19.50**	**87.75**	
36F240	8/U	.405	.285	P	7/21C	65.9	29.5	5000	52	N,C,HN,UHF	**.13**	**11.85**	**59.25**	**109.75**
36F234	8A/U	.405	.285	P	7/21C	65.9	29.5	5000	52	N,C,HN,UHF	**.14**	**13.20**	**66.00**	**122.25**
36F484	9B/U	.420	.280	P	7/21S	65.9	30	5000	50	N,C,HN,UHF	**.42**	**38.00**	**171.00**	
36F1103	10A/U	.475	.285	P	7/21C	65.9	29.5	5000	52	N,C,HN,UHF	**.26**	**24.00**	**108.00**	
36F241	11/U	.405	.285	P	7/26T	65.9	20.5	5000	75	N,C,HN,UHF	**.12**	**10.95**	**54.75**	**101.50**
36F235	11A/U	.405	.285	P	7/26T	65.9	20.5	5000	75	N,C,HN,UHF	**.13**	**12.30**	**61.50**	**114.00**
36F1104	12A/U	.475	.285	P	7/26T	65.9	20.5	5000	75	N,C,HN,UHF	**.25**	**23.15**	**104.25**	
36F1105	13/U	.420	.280	P	7/26T	65.9	20.5	5000	74	N,C,HN,UHF	**.20**	**18.70**	**84.00**	
36F1106	13A/U	.420	.280	P	7/26T	65.9	20.5	5000	74	N,C,HN,UHF	**.22**	**20.00**	**90.00**	
36F1107	14A/U	.545	.370	P	10C	65.9	29.5	7000	52	N,C,HN,UHF	**.34**	**30.80**	**138.75**	
36F487	17A/U	.870	.680	P	.188C	65.9	29.5	11000	52	N,C,HN,LC	**.66**	**60.80**	**273.75**	
36F1112	21A/U	.332	.185	P	16N	65.9	29	2700	53	N,C,UHF	**.36**	**32.00**	**144.38**	
36F1113	22B/U	.420	.285	P	Two 7/0152C	65.9	16	1000	95	Twin	**.29**	**26.80**	**120.75**	
36F1114	34B/U	.630	.460	P	7/.0249C	65.9	21.5	6500	75	UHF	**.38**	**34.80**	**156.75**	
36F1116	55B/U	.206	.116	P	20S	65.9	28.5	1900	53.5	TNC,BNC,BN,C,UHF	**.11**	**10.05**	**45.25**	
36F1117	57A/U	.625	.472	P	Two 7/21C	65.9	16	3000	95	Twin	**.42**	**38.10**	**171.75**	
36F243	58/U	.195	.116	P	20C	65.9	28.5	1900	53.5	TNC,BNC,BN,C,UHF,N	**.05**	**4.90**	**24.50**	**45.50**
36F245	58A/U	.195	.116	P	19/.0071T	65.9	30	1900	50	TNC,BNC,BN,C,UHF,N	**.05**	**4.90**	**24.50**	**45.50**
36F491	58C/U	.195	.116	P	19/.0071T	65.9	30	1900	50	TNC,BNC,BN,C,UHF,N	**.06**	**5.40**	**27.00**	**50.00**
36F244	59/U	.242	.146	P	22CW	65.9	21.5	2300	73	TNC,BNC,BN,C,UHF,N	**.06**	**5.08**	**25.38**	**47.00**
36F1118	59B/U	.242	.146	P	.023CW	65.9	21	2300	75	TNC,BNC,BN,C,UHF,N	**.06**	**5.85**	**29.25**	**54.00**
36F472	62/U	.242	.146	SSP	22CW	84	13.5	750	93	TNC,BNC,BN,C,UHF,N	**.06**	**5.40**	**27.00**	**50.00**
36F493	62A/U	.242	.146	SSP	22CW	84	13.5	750	93	TNC,BNC,BN,C,UHF,N	**.07**	**6.20**	**31.00**	**57.50**
36F1119	63B/U	.405	.285	SSP	22CW	84	10	1000	125	N,C,HN,UHF	**.17**	**15.75**	**70.88**	
36F1120	71B/U	.250	.146	SSP	22CW	84	13.5	750	93	TNC,BNC,BN,C,UHF,N	**.11**	**10.10**	**50.50**	**91.50**
36F1121	74A/U	.615	.370	P	10C	65.9	29.5	7000	52	N,C,HN	**.57**	**52.50**	**236.25**	
36F1122	79B/U	.475	.285	SSP	22CW	84	10	1000	125	N,C,HN,UHF	**.34**	**30.80**	**138.50**	
36F1124	108A/U	.235	.079 ea.	P	Two 7/28T	68	23.5	1000	78	Twin	**.09**	**8.15**	**36.75**	
36F1125	111A/U	.490	.285	P	Two 7/.0152C	65.9	16	1000	95	Twin	**.50**	**45.80**	**206.25**	
36F1126	114A/U	.405	.285	SSP	33CW	88	6.5	1000	185	N.C,HN,UHF	**.17**	**15.80**	**71.25**	
36F482	122/U	.160	.096	P	27/36T	65.9	29.5	1900	50	TNC,BNC,B,N	**.06**	**5.75**	**25.88**	
36F1136	164/U	.870	.680	P	.1045C	65.9	21	10000	75	N,C,HN	**.66**	**60.00**	**270.00**	
36F498	174/U	.100	.060	P	7/.0063CW	65.9	30	1500	50	BNC, Subminax	**.05**	**4.80**	**24.00**	**43.00**
36F1143	212/U	.332	.185	P	.0556S	65.9	28.5	3000	50	N,C,HN,UHF	**.31**	**28.10**	**126.50**	
36F1145	214/U	.425	.285	P	7/.0296S	65.9	30	5000	50	N,C,HN,UHF	**.42**	**38.00**	**171.00**	
36F1146	215/U	.475	.285	P	7/.0296C	65.9	29.5	5000	50	N,C,HN,UHF	**.26**	**24.00**	**108.00**	
36F1147	216/U	.425	.285	P	7/.0159T	65.9	20.5	5000	75	N,C,HN,UHF	**.22**	**20.00**	**90.00**	
36F1148	217/U	.545	.370	P	.106C	65.9	29.5	7000	50	N,C,HN,UHF	**.34**	**30.80**	**138.75**	
36F1153	222/U	.332	.185	P	.0556N	65.9	29	2700	50	N,C,UHF	**.35**	**32.00**	**144.38**	
36F1154	223/U	.216	.116	P	.035S	65.9	29.5	1900	50	TNC,BNC,BN,C,UHF,N	**.16**	**14.83**	**66.75**	

Stock No.	RG-/U No.	Jacket O.D.	Dielectric O.D.	Dielectric Type	Center Cond.	V.P. %	Cap. MMF/FT	Max. Oper. V RMS	Nom. IMP Ohms	Uses Connector Series	1-99 Per Foot	100-249 Per Foot	250-499 Per Foot
36F410	87A/U	.425	.280	TF	7/20S	69.5	29.5	5000	50	N,C,HN,UHF	**2.33**	**2.10**	**1.87**
36F1127	115A/U	.415	.250	TT	7/21S	70	29.5	5000	50	N,C,HN,UHF	**1.54**	**1.39**	**1.23**
36F431	140/U	.233	.146	TF	.025SCW	69.5	21	2300	75	BN,TNC,BNC,N,C,UHF	**.72**	**.65**	**.575**
36F1132	141A/U	.190	.116	TF	.039SCW	69.5	28.5	1900	50	TNC,BNC,N,C,UHF	**.47**	**.42**	**.37**
36F1133	142A/U	.206	.116	TF	.039SCW	69.5	28.5	1900	50	BN,TNC,BNC,C,N,UHF	**.54**	**.485**	**.43**
36F1134	143A/U	.325	.185	TF	.059SCW	69.5	28.5	3000	50	N,C	**1.30**	**1.18**	**1.05**
36F434	187/U	.110	.063	TF	7/38SCW	69.5	19.5	1200	75	BNC, Subminax	**.26**	**.23**	**.205**
36F433	188/U	.110	.060	TF	7/.0067SCW	69.5	29	1200	50	BNC, Subminax	**.24**	**.22**	**.19**
36F436	195/U	.155	.102	TF	7/38SCW	69.5	15	1500	95	BNC, Subminax	**.48**	**.43**	**.385**
36F435	196/U	.080	.034	TF	7/38SCW	69.5	29	1000	50	Subminax	**.21**	**.19**	**.17**
36F1141	210/U	.242	.146	SST	22SCW	84	13.5	750	93	N,C,TNC,BNC,BN,UHF	**.69**	**.62**	**.55**
36F1156	225/U	.430	.285	TF	7/.0312S	69.5	29.5	5000	50	N,C,HN,UHF	**2.10**	**1.89**	**1.68**

S—Silvered Copper C—Copper T—Tinned Copper KW—Karma Wire CW—Copperweld P—Polyethylene
SSP—Semi-Solid Polyethylene TF—Teflon SST—Semi-Solid Teflon N—Nichrome SCW—Silver-coated Copperweld
TT—Teflon Tape

SAVE WORK! . . Make Newark your Complete 1-Point Stock Source!
SAVE TIME! . . . At Newark—fast, efficient service always!
SAVE MONEY! . Quantity Prices Competitive with Manufacturer!

AMPHENOL TWIN LEAD TRANSMISSION LINE

TWIN 300 LEAD

Twin lead recommended for UHF-VHF television and FM antenna installations. Use of brown virgin polyethylene dielectric assures minimum signal loss and a more constant impedance over its exceptionally long life. Resistant to sun, chemical fumes, salt laden and gas polluted air.

AMPHENOL TWIN LEADS—300 Ohm Television Receiving Types

Description	Type	Lbs. 100 Ft.	25 Ft. Pre-Assembled Hank	NET	50 Ft. Pre-Assembled Hank	NET	75 Ft. Pre-Assembled Hank	NET	100 Ft. Pre-Assembled Hank	NET	500 Feet	NET	1000 Feet	NET
Standard 7/28 Copper Conductors. Brown Poly. 60 Mil Web.	214-056	1⅔	36F249D	.83	36F249A	1.31	36F249B	1.77	36F249C	2.22	36F249E	9.18	36F249	18.01
Indoor 7/28 Copper Conductors. Clear Poly. 60 Mil Web.	214-318	1⅔	36F1200A	.87	36F1200B	1.38	36F1200C	1.89	36F1200D	2.37	36F1200E	9.59	36F1200	18.90
Air-Core Tubular. 7/28 Copper Conductors. Brown Poly..	214-271	2¾	....	.....	36F248A*	2.16	36F248B*	2.81	36F248C*	3.51	36F248D	14.99	36F248	29.16
Century Deluxe. 7/28 Copper Conductors. Brown Poly. 100 Mil Web.	214-100	2¼	....	......	36F1201A	1.50	36F1201B	2.09	36F1201C	2.70	36F1201D	11.61	36F1201	22.46
Steelcore Tough, Long-Run Type. 7/28 Copper-Coated Steel Conductors. Brown Poly. 72 Mil Web.	214-559	1¾	....	......	36F1202A	1.41	36F1202B	1.91	36F1202C	2.40	36F1202D	10.40	36F1202	19.98
Heavy Duty Super Deluxe for Fringe Areas. 7/26 Copper Conductors. Brown Poly. 185 Mil Web.	214-185	4	....	......	....	......	....	......	36F1203A*	5.40	36F1203B	24.03	36F1203	47.25
Rotator Cable 4 Conductor Control Cable. 7/28 Copper Conductors. Brown Poly.	214-298	2⅙	....	......	36F1204A	1.80	36F1204B	2.49	36F1204C	3.21	36F1204D	13.50	36F1204	26.19

*Coils, unassembled.

AMATEUR TRANSMITTING TYPES

Description	Type	Lbs./100 Ft.	100 ft. Coil	NET	500 ft. Reel	NET	1000 ft. Reel	NET
75 Ohm Transmitting—Rated 1KW RF Power. 7/21 Copper Conductors. Brown Poly.	214-023	5	36F1205A	7.05	36F1205B	31.05	36F1205	61.02
150 Ohm Experimental Type. 7/28 Copper Conductors. Brown Poly.	214-079	1-1/5	....	......	36F237A	11.48	36F237	21.60
300 Ohm Air-Core Transmitting. 1 KW RF Power. Super Deluxe Reception. 7/26 Copper Conductors. Brown Poly.	214-076	3½	36F1206A	6.36	36F1206B	26.60	36F1206	50.76
300 Ohm Extra Strength. Size 16 Copperweld Conductors. Brown Poly.	214-022	4	36F239A	5.49	36F239B	24.03	36F239	46.98

POLYFOAM COAXIAL CABLES

Cellular polyethylene dielectric material provides lower weight, cost, capacitance, and attenuation than standard RG types. Widely used in commercial transmitter applications such as community TV and in ham stations. The dielectric constant is 1.50 as compared to 2.25 for solid polyethylene. It has a specially compounded non-contaminating black polyethylene jacket providing improved weather and abrasion resistance.

Stock No.	Amphenol No.	R G Equiv.	Lbs./100 ft.	Jacket *O.D.	Jacket Type	Dielectric OD	Dielectric Type	Cap. MMF/FT	Max. Oper. Volts	Nom. Imp. Ohms	/ft	/100ft	/500ft	/1000ft
36F402*	621-100	11/U	90	.405	Black Poly.	.285	C	16.5	3,000	75	.14	13.20	66.00	118.75
36F1207	621-102-101	11/U Triax	130	.460	Black Poly.	.285	C	16.5	3,000	75	.26	25.90	129.50	256.00
36F1208	621-111	8/U	115	.405	Black Vinyl	.285	C	26.0	3,500	50	.16	14.30	71.50	129.00
36F1209	621-700	59A/U	25	.195	Black Vinyl	.107	CW	17.0	1,000	73	.06	5.30	26.50	48.00
36F1210	621-701	59/U	26	.195	Black Vinyl	.107	CW	17.0	1,000	73	.05	4.50	22.50	40.75
36F403	621-715	59/U	27	.195	Black Poly.	.107	CW	17.0	1,000	73	.05	4.50	22.50	40.75

*Available Sweep-Tested (621-100-101).

AMPHENOL MINIATURE COAX CABLES

Miniature coaxial cables are identical in construction features to full size coaxial cables. Useful in any miniaturization applications. Designed for use with Amphenol's SUBMINAX connectors. Impedances at 50 and 75 ohms. Shpg. wt. 5 lbs. per 100 ft.

Type 21-598. (RG-174/U). Polyethylene dielectric. 50 ohms. imp.
36F498. Price per foot.. **.052**
Per 100 feet..........................**4.80** **Per 1000 feet**.............................**43.00**

Type 21-597. Polyethylene dielectric. 75 ohm impedance.
36F497. Price per foot.. **.06**
Per 100 feet..........................**5.30** **Per 1000 feet**.............................**48.00**

AMPHENOL MICROPHONE CABLE

Type 21-146 microphone cable has very low capacitance for its small diameter. Amphenol microphone cable with polyethylene dielectric vinyl jacket is designed for use by PA system servicemen or manufacturers of sound equipment and other similar applications. The outside jacket diameter is .155". Shipping weight is 6 pounds per 100 feet.

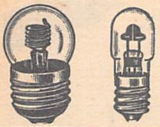
36F429. Price per foot.. **.05**
Per 100 feet......**4.50** **Per 1000 feet**......**40.50**

NEWARK'S DIVERSIFIED STOCKS OF QUALITY INDUSTRIAL ELECTRONIC PRODUCTS ENABLE US TO FILL YOUR NEEDS WITH SPEED, RELIABILITY, AND ECONOMY.

LAMPS AND CLIPS

GENERAL ELECTRIC PILOT LAMPS

GE NEON GLOW LAMPS



For 105-125 volts except types marked * which are for 210-250 volts. Screw types have series resistor in base, others require external resistor as listed. All types will operate on both AC and DC except where starting voltages are omitted. S.C. stands for single contact; D.C. for double contact. Prices include Federal Excise Taxes. Av. shpg. wt., 3 oz.

Stock No.	Mfrs. Type	Watts	Ohms	Base	Starting V.		Bulb Style	NET EACH	Box of 10
					AC	DC			
25F027	NE-2E	1/10	68,000	Wire Terms.	65	90	T-2	.10	.80
25F028	NE-51H	¼	25,000	S.C. Bay Min.	95	135	T-3¼	.23	1.84
25F029	NE-2D	1/10	68,000	S.C. Midget Flange	65	90	T-2	.82	6.56
25F030	NE-2	1/25	200,000	Wire Term.	65	90	T-2	.10	.80
25F031	NE-51	1/25	200,000	S.C. Bay. Min.	65	90	T-3¼	.21	1.68
25F032	NE-57	¼	....	Cand. Screw	55	75	T-4½	.99	7.92
25F033	NE-48	¼	30,000	D.C. Bay.	65	90	T-4½	.70	5.40
25F034	NE-45	¼	....	Cand. Screw	65	90	T-4½	.85	6.80
25F035	NE-21	¼	30,000	S.C. Bay.	55	75	T-4½	.95	7.60
25F036	NE-58*	½	....	Cand. Screw	65	90	T-4½	.95	7.60
25F037	NE-16	¼	....	D.C. Bay.	....	67	T-4½	.63	5.04
25F038	NE-17	¼	30,000	D.C. Bay.	55	75	T-4½	.90	7.20
25F040	NE-56*	1	....	Med. Screw	60	85	S-11	1.25	10.00
25F041	NE-30	1	....	Med. Screw	60	85	S-11	1.20	9.60
25F042	NE-31	1	....	Sk. Cand. Screw	60	85	G-10	2.98	25.00
25F043	NE-32	1	7,500	D.C. Bay.	60	85	G-10	1.20	9.60
25F044	NE-34	2	....	Med. Screw	60	85	S-14	1.85	14.80
25F045	NE-36	2	3,500	Sk. D.C. Bay.	60	85	S-14	2.40	19.20
25F046	NE-40	3	....	Med. Screw	60	85	S-14	2.70	21.60
25F047	NE-42	3	2,200	Sk. D.C. Bay.	60	85	S-14	2.65	21.20
25F177	NE-77	1	....	3-wire Term.	....	140	T-2	.55	4.30
25F026	NE-2H	¼	22,000	Wire Term.	95	135	T-2	.12	1.00
25F178	NE-3	¼	100,000	Slide	90	65	T-2	.63	5.04

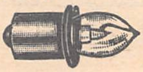
PANEL & PILOT BULBS

†Miniature bayonet base. ‡Single-contact bayonet base. **Double-contact bayonet. ††Single-contact midget flanged. ‡‡Mid-groove. ***Min. 2-pin. *D.C. Pref. Others have min. screw base. Prices include F.E. Tax. Shpg. wt., 2 oz.; 10, 4 oz.; 100, 2½ lbs.

Stock No.	Lamp No.	Volt	Amp	EA.	10 for	100 for
25F100	40	6.3	.15	.15	.92	8.28
25F101	41	2.5	.50	.15	.92	8.28
25F116	42	3.2	.35	.25	1.53	13.77
25F102	43†	2.5	.50	.15	.92	8.28
25F103	44†	6.3	.25	.15	.92	8.28
25F104	45†	3.2	.35	.15	.92	8.28
25F105	46	6.3	.25	.15	.92	8.28
25F106	47†	6.3	.15	.15	.92	8.28
25F107	48	2.0	.06	.15	.92	8.28
25F108	49†	2.0	.06	.15	.92	8.28
25F109	50	7.5	1 c.p.	.15	.92	8.28
25F113	51†	7.5	1 c.p.	.14	.84	7.56
25F110	55†	7.0	2 c.p.	.14	.84	7.56
25F114	313†	28	.17	.32	1.93	17.37
25F117	1133‡	6.2	32 c.p.	.36	2.18	19.62
25F166	12***	6.3	.15	1.83	.30	16.47
25F164	53†	14.4	1 c.p.	.14	.84	7.56
25F181	1493**	6.5	2.75	1.05	6.42	57.78*
25F182	1446	12	.20	.25	1.53	13.77
25F183	1487	14	.20	.20	1.22	10.98
25F111	1447	18.0	.15	.20	1.22	10.98
25F112	1490†	3.2	.16	.17	1.04	9.36
25F118	1815†	14	.20	.20	1.22	10.98
25F119	1816†	13	.33	.27	1.64	14.76
25F121	81‡	6.5	6 c.p.	.23	1.36	12.24
25F120	82**	6.5	6 c.p.	.23	1.36	12.24
25F122	327††	28	.04	.81	4.90	44.10
25F123	328††	6	.20	.63	3.82	34.38
25F124	330††	14	.08	.90	5.45	54.99
25F125	331††	1.35	.06	.80	4.89	44.01
25F126	338††	2.7	.06	.80	4.89	44.01
25F127	1813†	14.4	.10	.25	1.53	13.77
25F115	1829†	28	.07	.35	2.14	19.26
25F149	1768	6.0	.20	.90	5.50	49.50
25F129	57†	14	.24	.14	.84	7.56
25F133	1819†	28	.04	.41	2.45	22.05
25F153	334‡‡	28	.04	.81	4.90	44.10
25F159	346‡‡	18	.04	1.20	7.33	65.97
25F160	344††	10	.015	1.50	9.17	82.53
25F161	1630*	6.5	2.75	1.40	8.55	76.95
25F167	1820†	28	.10	.36	2.18	19.62
25F165	345‡‡	6	.04	1.40	8.55	76.95
25F180	1835†	55	.05	.65	3.97	35.73

NEWARK stocks the world's most complete diversified inventory of industrial electronics equipment.

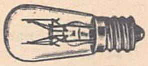
FLASHLIGHT BULBS



High quality Flashlight and Hand Lantern Bulbs feature high mechanical strength, long life, good quality of light in sufficient quantity, top efficiency, and overall operating performance. Truly the finest available lamp for all your flashlight needs. Shpg. wt., 3 oz. No. 224 has special base slightly smaller dia. than miniature base and with approx. one and one-half turns of thread. Nos. PR-2, 3, 4, 6, 7, 8, and 12 are S.C. min. flanged. Others have min. screw base for Radar Lamps.

Stock No.	Lamp No.	Cell	Volts	Amp	Ea.	Box of 10	100 for
25F130	112	1AA	1.2	0.22	.17	1.04	9.36
25F131	136	6	1.25	0.60	.17	1.04	9.36
25F132	14	2D	2.47	0.30	.17	1.04	9.36
25F135	222	2AA	2.25	0.25	.17	1.04	9.36
25F136	223	2AA	2.25	0.25	.17	1.04	9.36
25F147	224	2AAA	2.15	0.22	.17	1.04	9.36
25F137	233	2C	2.33	0.27	.17	1.04	9.36
25F138	PR-4	2C	2.33	0.27	.20	1.22	10.98
25F140	PR-6	2D	2.47	0.30	.20	1.22	10.98
25F142	PR-2	2D	2.38	0.50	.20	1.22	10.98
25F143	13	3D	3.7	0.30	.17	1.04	9.36
25F144	PR-3	3D	3.57	0.50	.20	1.22	10.98
25F145	31	5D	6.15	0.30	.20	1.22	10.98
25F146	605	5D	6.15	0.50	.17	1.04	9.36
25F150	PR-7	3D	3.70	0.30	.20	1.22	10.98
25F151	425	4F	5.0	0.50	.17	1.04	9.36
25F152	PR-12	5D	5.95	0.50	.20	1.22	10.98
25F179	965	8D-8F	9.84	.50	.25	1.53	13.79

S6 125 VOLT PILOT LAMP



Rated 1500 hours. Clear color. Candelabra base. 1⅞" long. Shipping weight, 4 oz..
*230 V.

No.	Type	Watts	Each	10 Up, Ea.
25F170	6S6	6	.22	.20
25F173	3S6	3	.39	.35
25F176	10S6	10*	.52	.47

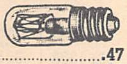
Type 7C7. As above, but conical shaped. 2⅛" long. 7 watts., Shpg. weight, 4 oz.

No.	Color	Each	10 Up, Ea.
25F171	Clear	.22	.20
25F172	White	.22	.20

6S6/DC—125 V. double contact bayonet base bulb.

No.	Color	Each	10 Up, Ea.
25F175	Clear	.33	.30

120 V. 4-WATT PILOT LAMP

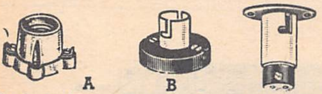


Clear, candelabra base, 9⁄16" dia., 1 9⁄16" length. Wt., 4 oz.

25F174. NET EACH.................................**.47**
10 For...**4.24**

SOCKETS AND LAMPS

HIGH QUALITY SOCKETS FOR NEON LAMPS



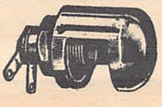
Sockets for neon type lamps. Edison Medium bases are for standard bulbs. *Denotes hard rubber insert in metal shell. S.C. stands for single contact type; D.C. for double contact type. Av. wt., 3 oz.

No.	Base	Fig.	NET	10 for
25F300	Edison Med.	A	21c	1.99
25F303	Cand. Screw	A	15c	1.28
25F304	D.C. Bay. Cand.	C*	45c	3.95
25F305	D.C. Bay. Cand.	B	49c	4.40
25F306	S.C. Bay. Cand.	B	46c	4.00

E. F. JOHNSON PANEL LIGHT

For front panel illumination. Rotates 360° For ½" hole, T3¼, G3 ⅓ bulbs. 3 oz. Base. *Screw, †Bayonet. ......

25F320. 147-330* **82c**
25F321. 147-329† **91c**



TINYLITE CLIPS

Midget sockets for Tinylite bulbs. Easily installed in any position, no matter how hard to get at. Midget screw socket. Perfect for any subminiature use.

Type 2133BCH. Reverse clip. Shp. wt., 3 oz.

No.	1-99	100-249	250-499
25F157	.23	.18	.12

Type 2129CZH. Rt. ang. clip w/hole.

25F158	.23	.18	.12

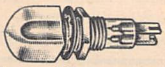
TINYLITES

High quality midget lamps, 9⁄16" long. Midget screw base .500 hours rated avg. life except 1808-250 hours. Perfect for any subminiature application, transistorized units, etc. Shpg. wt., 2 oz.

No.	Type	V.	Amps.	Each	10 for	100 for
25F154	765	7	.065	.27	1.89	15.50
25F155	1465	14	.065	.35	2.45	17.50
25F156	1808	18	.08	.50	3.50	25.00

DRAKE NEON INDICATING LIGHTS

TYPE 105 POST-LITE



Neon indicating light built for 65-230 volts AC or 90-130 volts DC. Light is housed in translucent plastic base. Measurement overall: 2¼x⅝". Requires a ½" hole. Underwriters Laboratories Approved. Shpg. wt., 2 oz.

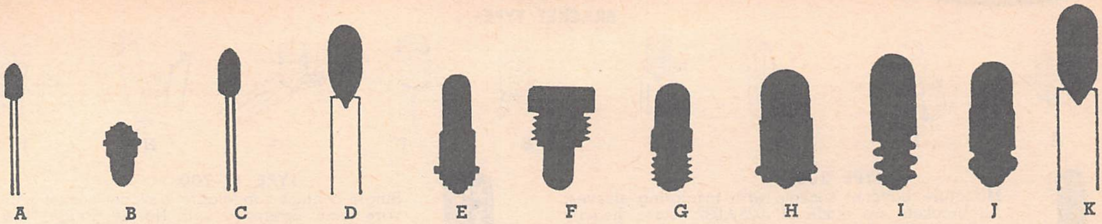
25F022. 1-49.... .58 50-99.... .54 100-249.... .49

TYPE 110 FLUSHLITE

Bright neon indicating light housed in a translucent plastic case. Manufactured for use in electrical circuits operating on 110-125 volts, AC-DC. Underwriters Laboratories Approved. Size, ½x1⅞x9⁄16". Mounting centers, 1½". Shpg. wt., 2 oz.

25F021. 1-49.... .40 50-99.... .38 100-249.... .34

CHICAGO MINIATURE LAMP WORKS



The ultra-miniature lamps described below were specifically designed for modern up-to-date special equipment requiring the ultimate in precision miniature lamp techniques. These lamps were engineered to military specifications. Used as standards on many classified government projects, in computers, business machines.

NOTE: The "AS" number following type numbers indicate aged and selected bulb. "L" indicates a long life lamp.

MIL SPEC. ULTRA MINIATURE LAMPS

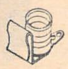
Stk. No.	Fig.	Mil. No.	Type	Volt.	Amp.	1-9	10-99	100-199
26F500	F	15530-1	323	3.0	.19	1.00	.61	.45
26F501	H	25237-327 15544-2	327	28.0	.04	.90	.55	.41
26F502	H	25237-327 15544-2	327 AS-15	28.0	.04	2.03	1.24	.913
26F503	H	25237-327 15544-2	327 AS-25	28.0	.04	1.80	1.10	.81
26F504	H	25237-328 15544-1	328	6.0	.20	.70	.43	.32
26F505	H	15544-1 25237-328	328 AS-10	6.0	.20	2.30	1.405	1.035
26F506	H	15544-1 25237-328	328 AS-15	6.0	.20	1.76	1.07	.789
26F507	H	15544-1 25237-328	328 L	6.0	.20	2.10	1.28	.95
26F508	I	15612-1	335	28.0	.04	1.20	.73	.54
26F509	I	15612-1	335 AS-15	28.0	.04	2.35	1.435	1.05
26F510	I	15612-1	335 AS-25	28.0	.04	2.09	1.276	.94
26F511	I	15612-5	342	6.0	.04	1.40	.86	.72
26F512	I	15612-4	1767	2.5	.20	.60	.37	.31
26F513	I	15612-1	1768	6.0	.20	.90	.55	.46
26F514	I	15612-1	1768 AS-10	6.0	.20	2.33	1.42	1.05
26F515	I	15612-1	1768 AS-15	6.0	.20	2.03	1.29	.913
26F516	I	15612-1	1768 L	6.0	.20	2.25	1.37	1.01
26F517	I	15612-3	1769	2.5	.20	.80	.49	.41
26F518	D	28135-1 28135-2	CM 8 627	28.0	.04	1.20	.733	.54
26F519	D	28135-1 28135-2	CM 8 627 AS-15	28.0	.04	2.25	1.375	1.012
26F520	D	28135-1 28135-2	CM 8 627 AS-25	28.0	.04	2.05	1.25	.923
26F521	C	24367-1	CM 8 680	5.0	.060	3.20	1.96	1.44
26F522	C	24367-5	CM 8 680 AS-15	5.0	.060	3.30	2.06	1.54
26F523	B	24515-1	CM 8 682	5.0	.060	4.00	2.44	1.80
26F524	B	24515-5	CM 8 682 AS-15	5.0	.060	4.10	2.54	1.90
26F525	C	24367-2	CM 8 683	5.0	.060	3.20	1.96	1.44
26F526	C	24367-6	CM 8 683 AS-15	5.0	.060	3.30	2.06	1.54
26F527	B	24515-2	CM 8 685	5.0	.060	4.00	2.44	1.80
26F528	B	24515-6	CM 8 685 AS-15	5.0	.060	4.10	2.54	1.90
26F529	C	24367-3	CM 8 713	5.0	.075	3.20	1.96	1.44
26F530	C	24367-7	CM 8 713 AS-15	5.0	.075	3.30	2.06	1.54
26F531	B	24515-3	CM 8 714	5.0	.075	4.00	2.44	1.80
26F532	B	24515-7	CM 8 714 AS-15	5.0	.075	4.10	2.54	1.90
26F533	C	24367-4	CM 8 715	5.0	.115	3.20	1.96	1.44
26F534	C	24367-8	CM 8 715 AS-15	5.0	.115	3.30	2.06	1.54
26F535	B	24515-4	CM 8 718	5.0	.115	4.00	2.44	1.80
26F536	B	24515-8	CM 8 718 AS-15	5.0	.115	4.10	2.54	1.90

ULTRA MINIATURE LAMPS

Stock No.	Fig.	CMLW No.	Volt.	Amp.	1-9	10-99	100-199
26F537	D	324	3.0	.19	.40	.24	.18
26F538	G	325	3.0	.19	1.25	.76	.56
26F539	F	326	2.5	.40	2.00	1.22	.90
26F540	G	329	2.5	.40	1.80	1.10	.92
26F541	H	330	14.0	.08	1.00	.61	.45
26F542	H	331	1.35	.06	.80	.49	.41
26F543	H	332	6.0	.20	1.45	.89	.74
26F544	J	334	28.0	.04	.90	.55	.41
26F545	J	334 AS-15	28.0	.04	2.03	1.24	.913
26F546	J	334 AS-25	28.0	.04	1.80	1.10	.81
26F547	J	336	14.0	.08	1.50	.92	.61
26F548	J	337	6.0	.20	1.45	.89	.74
26F549	J	337 AS-10	6.0	.20	2.30	1.40	1.035
26F550	J	337 AS-15	6.0	.20	1.76	1.07	.789
26F552	H	338	2.7	.06	.80	.49	.41
26F554	H	344	10.0	.015	1.50	.92	.68
26F555	H	345	6.0	.04	1.40	.86	.63
26F556	K	1705	14.0	.08	.50	.31	.23
26F557	K	1728	1.35	.06	.40	.24	.18
26F558	K	1730	6.0	.04	.70	.43	.32
26F559	K	1738	2.7	.06	.30	.18	.14
26F560	K	1739	6.3	.075	1.10	.67	.50
26F561	K	1764	28.0	.04	.45	.28	.20
26F562	K	1764 AS-15	28.0	.04	1.80	1.10	.81
26F563	K	1764 AS-25	28.0	.04	1.55	.95	.696
26F564	I	1775	6.3	.075	.80	.49	.41
26F565	K	1783	2.5	.20	1.10	4.67	.50
26F566	K	1784	6.0	.20	.70	.43	.32
26F567	K	1784 AS-10	6.0	.20	2.03	1.24	.913
26F568	K	1784 AS-15	6.0	.20	1.50	.92	.675
26F569	K	1784 L	6.0	.20	2.10	1.28	.95
26F570	K	1859	10.0	.015	1.35	.83	.61
26F571	F	CM 8 623	28.0	.04	1.80	1.10	.81
26F572	F	CM 8 623 AS-15	28.0	.04	2.85	1.74	1.282
26F573	F	CM 8 623 AS-25	28.0	.04	2.60	1.59	1.117
26F574	E	CM 8 628	6.0	.20	1.65	1.01	.742
26F575	E	CM 8 628 AS-15	6.0	.20	2.75	1.68	1.238
26F576	E	CM 8 628 AS-25	6.0	.20	2.50	1.53	1.125
26F577	D	CM 8 631	1.35	.06	1.20	.73	.54
26F578	E	CM 8 632	28.0	.04	1.80	1.10	.81
26F579	E	CM 8 632 AS-15	28.0	.04	3.10	1.89	1.395
26F580	E	CM 8 632 AS-25	28.0	.04	2.85	1.74	1.282
26F581	D	CM 8 634	6.0	.20	.95	.58	.428
26F582	D	CM 8 634 AS-10	6.0	.20	2.05	1.25	....
26F583	D	CM 8 634 AS-15	6.0	.20	1.80	1.10	.81
26F584	G	CM 8 635	28.0	.04	1.80	1.10	.81
26F585	G	CM 8 635 AS-15	28.0	.04	2.85	1.74	1.282
26F586	G	CM 8 635 AS-25	28.0	.04	2.60	1.59	1.17
26F587	E	CM 8 636	1.35	.06	1.80	1.10	.81
26F588	E	CM 8 637	3.0	.19	1.65	1.01	.742
26F589	F	CM 8 639	6.0	.20	1.80	1.10	.81
26F590	F	CM 8 639 AS-10	6.0	.20	2.85	1.74	....
26F591	F	CM 8 639 AS-15	6.0	.20	2.60	1.59	1.17
26F592	D	CM 8 640	14.0	.08	1.20	.73	.54
26F593	G	CM 8 641	1.35	.06	1.80	1.10	.81
26F594	G	CM 8 644	14.0	.08	1.80	1.10	.81
26F595	G	CM 8 645	6.0	.20	1.65	1.01	.742
26F596	G	CM 8 645 AS-10	6.0	.20	2.75	1.68	....
26F597	G	CM 8 645 AS-15	6.0	.20	2.60	1.53	1.125
26F598	E	CM 8 646	14.0	.08	1.80	1.10	.81
26F599	F	CM 8 647	1.35	.06	1.80	1.10	.81
26F600	F	CM 8 654	14.0	.08	1.80	1.10	.81
26F601	D	CM 8 655	2.5	.40	1.20	.73	.54
26F602	E	CM 8 656	2.5	.40	1.80	1.10	.81
26F603	F	CM 8 657	6.0	.04	1.80	1.10	.81
26F604	E	CM 8 660	6.0	.04	1.80	1.10	.81
26F605	D	CM 8 661	6.0	.04	1.20	.73	.54
26F606	G	CM 8 662	6.0	.04	1.80	1.10	.81
26F607	K	CM 8 663	2.5	.40	1.20	.73	.54
26F608	K	CM 8 664	6.0	.20	1.45	.89	.653
26F609	A	CM 8 666	2	.05	4.20	2.57	1.89
26F610	H	CM 8 667	2.5	.20	1.45	.89	.653
26F611	I	CM 8 669	1.35	.06	1.15	.70	.518
26F612	I	CM 8 671	2.5	.40	1.60	.98	.72
26F613	I	CM 8 687	6.0	.20	1.90	1.17	.855
26F614	I	CM 8 691	10.0	.015	1.60	.98	.72
26F615	I	CM 8 693	2.7	.06	1.45	.89	.653
26F616	I	CM 8 697	14.0	.08	1.25	.76	.563
26F617	J	CM 8 698	1.35	.06	1.15	.70	.518
26F618	J	CM 8 699	2.5	.20	1.45	.89	.653
26F619	J	CM 8 703	2.5	.40	1.60	.98	.72
26F620	J	CM 8 704	2.7	.06	1.15	.89	.653
26F621	J	CM 8 705	6.0	.04	1.35	.83	.608
26F622	J	CM 8 706	6.0	.20	1.90	1.17	.855
26F623	J	CM 8 709	10.0	.015	1.60	.98	.72

LEECRAFT® LAMP SOCKETS

BRACKET TYPES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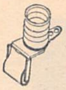
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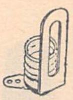
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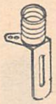
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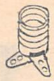
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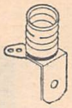
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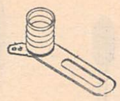
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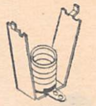
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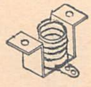
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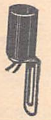
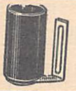


TYPE 200

Miniature bayonet sockets with insulating sleeves. All brackets are made of .025/.032" steel, heavily cadmium plated for resistance to corrosion. Sockets are equipped with built in leads of #22 gauge wire. Sockets have insulated sleeves eliminating accidental grounding.

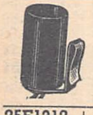
Stock No.	Type	Fig.	1-49	50-99	100-UP
25F1300	2-01	A	.15 EA.	.12 EA.	8.90 PER C
25F1301	2-04	B			
25F1302	2-06	D			
25F1303	2-13	G			
25F1304	2-15	H			



TYPE 300

Miniature bayonet sockets housed in molded bakelite. 300 type housings provide needed insulation where low voltage lamps are used on commercial voltage circuits. UL listed and CSA approved.

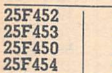
25F1305	3-01	A	.25 EA.	.20 EA.	16.50 PER C
25F1306	3.02	B			
25F1307	3-05	C			
25F1308	3-06	D			
25F1309	3-13	G			
25F1310	3-15	H			
25F1311	3-20	F			



TYPE 400

Candelabra screw base sockets housed in molded bakelite. UL listed and CSA approved. Standard No. 18 gauge wire leads are black and white, 6" long with ends stripped ½". Used for both incandescent and neon glow lamps.

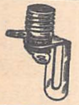
25F1312	4-01	A	.25 EA.	.20 EA.	15.85 PER C
25F1313	4-04	B			
25F1314	4-05	C			
25F1315	4-06	D			
25F1316	4-08	F			
25F1317	4-15	H			



TYPE 500

Miniature screw sockets with soldering terminals. Terminals are tinned for easy soldering of wire connections. Useful for low voltage incandescent lamp applications. Brackets are heavily cadmium plated steel for corrosion resistance.

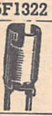
25F452	5-01	A	.12 EA.	.10 EA.	5.40 PER C
25F453	5-04	B			
25F450	5-05	C			
25F454	5-06	D			
25F451	5-07	E			
25F447	5-08	F			
25F1318	5-13	G			
25F1319	5-15	H			



TYPE 600

Candelabra screw sockets with soldering terminals. Terminals are tinned for easy soldering. Brackets are .025/.032" cadmium plated steel for corrosion resistance. Designed for G6 and S6 incandescent lamps.

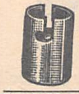
Stock No.	Type	Fig.	1-49	50-99	100-999	1000-UP
25F463	6-01	A	.12 EA.	.10 EA.	6.21 PER C	5.40 PER C
25F464	6-04	B				
25F461	6-05	C				
25F446	6-06	D				
25F462	6-07	E				
25F448	6-08	F				
25F1320	6-11	J				
25F1321	6-13	G				
25F1322	6-15	H				



TYPE 700

Miniature bayonet sockets with soldering terminals for low voltage incandescent lamps such as T-3¼, G-3½ and G-4½. Terminals are tinned for easy soldering. *Not illustrated, for printed circuits.

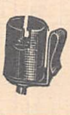
Stock No.	Type	Fig.	1-49	50-99	100-UP
25F457	7-01	A	.12 EA.	.10 EA.	5.40 PER C
25F458	7-04	B			
25F455	7-05	C			
25F459	7-06	D			
25F456	7-07	E			
25F449	7-08	F			
25F1323	7-11	J			
25F1324	7-13	G			
25F1325	7-15	H			
25F460	7-20	D			
25F1326	7-35	*			



TYPE 11-200

Single contact candelabra bayonet socket with one wire lead. Equipped with No. 18 gauge wire and brackets are made of .035/.042" cadmium plated steel for corrosion resistance.

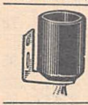
Stock No.	Type	Fig.	1-49	50-99	100-UP
25F1327	11-271	C	.25 EA.	.20 EA.	14.65 PER C
25F1328	11-272	D			



TYPE 12-200

Double contact candelabra bayonet sockets. UL listed and CSA approved. Contacts are mounted in bakelite disk and are separated by small coils. Disk is spring loaded to assure firm contact. Applicable to incandescent and neon glow lamps such as the NE-48, S6 and 10C7. *Plug-in bracket, not illustrated.

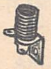
Stock No.	Type	Fig.	1-49	50-99	100-UP
25F1329	12-201	A	.30 EA.	.25 EA.	16.85 PER C
25F1330	12-202	B			
25F1331	12-212	G			
25F1332	12-240	*			
25F1333	12-271	C			
25F1334	12-272	D			



TYPE 1400

Intermediate screw sockets with wire leads. For incandescent and ozone lamp applications. UL and CSA approved.

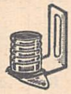
Stock No.	Type	Fig.	1-49	50-99	100-UP
25F1335	14-71	C	.30 EA.	.25 EA.	17.10 PER C
25F1336	14-72	F			
25F1337	14-212	G			



TYPE 1600

Midget screw sockets. With soldering terminals, tinned for easy application.

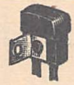
Stock No.	Type	Fig.	1-49	50-99	100-999	1000-UP
25F1338	16-08	F	.20 EA.	.15 EA.	10.80/C	8.50/C



TYPE 1800

Candelabra screw base socket. UL listed and CSA approved. For incandescent, neon glow and lamp applications. An insulating sleeve for use over screw sleeve will be provided to meet UL requirements.

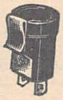
Stock No.	Type	Fig.	1-49	50-99	100-UP
25F1350	18-01	A	.15 EA.	.12 EA.	7.90 PER C
25F1351	18-04	B			
25F1352	18-76	D			
25F1353	18-79	C			



TYPE 23-00 AND 23-200

Molded wedge base sockets. UL approved for AC-DC receivers. Double contact feature insures security of lamp as it is held on both sides. 23-00 has terminals and 23-200 has wire leads.

Stock No.	Type	Bracket	1-49	50-99	100-UP
25F1354	23-23	Left hnd.	.10 EA.	.10 EA.	5.85 Per 100
25F1355	23-24	Right hnd.			
25F1356	23-223	Left hnd.	.15 EA.	.15 EA.	9.10 Per 100
25F1357	23-224	Right hnd.			

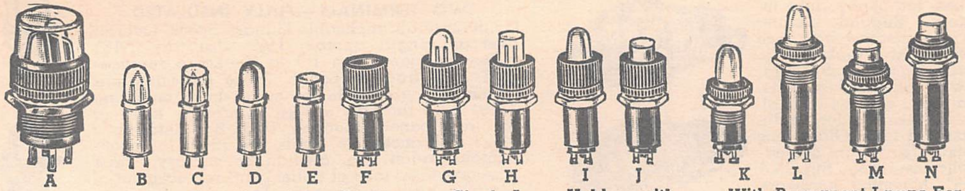


TYPE 57-00 AND 57-200

Double contact candelabra bayonet sockets with tab terminals. UL listed and CSA approved. 75 watt and 125 volts. Brackets are made of .035/.042" cadmium plated steel to resist corrosion. Type 57-241 is equipped with wire leads instead of tab terminals. *Right hand bracket.

Stock No.	Type	Fig.	1-49	50-99	100-UP
25F1358	57-24	*	.25 EA.	.20 EA.	12.85 PER C
25F1359	57-41	D			
25F1360	57-45	A			
25F1361	57-241	D	.30	.25	16.90/C

NEWARK'S DIVERSIFIED STOCKS OF QUALITY INDUSTRIAL ELECTRONIC PRODUCTS ENABLE US TO FILL YOUR NEEDS WITH SPEED, RELIABILITY, AND ECONOMY.



Twin Lamp Assembly | Lamp Cartridges for Twin Lamp Assembly and Single Lamp Holder | Single Lamp Holder | Single Lamp Holders with Lamp Cartridges. Neon (G-H); Incandescent (I-J) | With Permanent Lamps For Use Where Lamp Replacement Is Not Necessary

Neon Lamps Are Built-In in these 4 units. K-N

ULTRA-MINIATURE INDICATOR LIGHTS—Mount in 3/8" Clearance Hole from back of panel

(Twin Lamp Assembly mounts in 3/4" clearance hole)

Ultra-miniature Indicator Lights requiring only a 3/8" panel mounting clearance hole (3/4" for the "TWIN"). 2 basic styles: (A-J) with Dialco's own replaceable Lamp. Cartridges (B-E) . . . and (K—N) with permanent Neon Glow Lamps. Very compact. Ideal for data-processing equipment, computers, and automation applications. The short and long cylindrical lenses can be hot-stamped with legends. All units fully insulated. Conform to applicable military specifications.

Lamp Cartridges consist of unbased NE-2E Neon Lamps or T-1¾ wire-lead Incandescent Lamps, mounted in aluminum sleeves and capped with plastic lenses. Connections are brought out as stainless steel pins mounted in nylon insulation and offset to provide polarization. Datalites with permanent NE-2 Series Neon Glow Lamps are designed for use where lamp replacement is not necessary. Legends can be hot-stamped on the flat front surfaces of the cylindrical lenses.

(A) TWIN LAMP ASSEMBLY
No. 248-6939-1437

Mounts in 3/4" Clearance Hole

Compact dual-unit housing 2 Dialco Lamp Cartridges (see below). Conforms to mil. specs. Permits independent operation of each lamp—indicates 4 possible conditions; or lamps can be parallel-wired. Cartridges replace from front. Clear plastic lens. Less cartridges. 1 53/64x7/8". 3 ozs.
25F1166. 1 to 99. NET EA.......3.30

(B—E) DIALCO'S LAMP CARTRIDGES

For Twin Lamp & Single Lamp Holder

NE-2E Neon Lamps or T-1¾ wire-lead incandescent Lamps, in alum. sleeves with plastic lenses. Connections — stainless steel pins in nylon insul. and offset to provide polarization.

(B—C) NEON GLOW

The NE-2E Neon Glow Lamp has formed tip and double length electrodes; 1/25 watt; starting voltage of 65 AC and 90 DC. Use 100K ohm resistor for 105 to 125 volts. Overall size of lamp cartridge, 1 19/64"x21/64". Ave. Shpg. Wt., 1 oz.

(B) STOVEPIPE NEON CARTRIDGES

Stock No.	Type	Color	1-99
25F1100	38-931	Red	.86
25F1101	38-933	Amber	
25F1102	38-935	White	
25F1103	38-936	Light Yellow	
25F1104	38-937	Clear	

(C) LONG CYLINDRICAL NEON GLOW LAMP CARTRIDGES

Stock No.	Type	Color	1-99
25F1105	38-1531	Red	.86
25F1106	38-1533	Amber	
25F1107	38-1535	White	
25F1108	38-1536	Light Yellow	
25F1109	38-1537	Clear	

NEON CARTRIDGES

No. 45 and No. 45H (High Brightness)

Similar to Dialco's No. 38 (illustrated), but 5/64" longer. Has BUILT-IN RESISTOR (1/10 watt). For the No. 45 **regular,** the resistance value is 56,000 ohms for use on 105-125 volts AC or DC. For the No. 45H (High Brightness), the resistance value is 18,000 ohms for use on 110-125 volts AC.

Type 45. With built-in 56K resistor for 105-125 volts. AC or DC. *Colorless.

Stovepipe		Long Cylindrical		
Stock No.	Type 45-56K	Stock No.	Type 45-56K	Lens Color
25F1180	931	25F1185	1531	Red
25F1181	933	25F1186	1533	Amber
25F1182	935	25F1187	1535	White
25F1183	936	25F1188	1536	Lt. Yel.
25F1184	937	25F1189	1537	Clear*

Type 45H. With built-in 18K resistor for 110-125 volts AC.

Stovepipe		Long Cylindrical		
Stock No.	Type 45H-18K	Stock No.	Type 45H-18K	Lens Color
25F1190	931	25F1195	1531	Red
25F1191	933	25F1196	1533	Amber
25F1192	935	25F1197	1535	White
25F1193	936	25F1198	1536	Lt. Yel.
25F1194	937	25F1199	1537	Clear*

1-99. NET EACH......1.14

(F) SINGLE LAMP HOLDER No. 7538

Very compact. 2 insul. terms. marked "A" and "B"; and offset to provide correct polarity when replacing lamp cartridges in DC circuits. Conforms to mil. specs. Shown (G-J) Lampholder with cartridges. Black anodized alum. collar, flange ring, mtg. bushing. Brass mtg. nut with white nickel finish. Moulded insul. 1 13/16x1/2" overall, less lamp cartridge: or up to 1⅝" long with cartridge. With mtg. hardware, less lamp cartridge, av. shpg. wt., 2 oz.
25F1167. 1-99......1.22

SINGLE LAMP HOLDER

No. 7545 Similar to No. 7538, but is 5/64" longer to accommodate the new longer Neon Cartridges No. 45 and 45H listed below left.
25F1209. 1-99. NET EA.......1.22

(D) STOVEPIPE INCANDESCENT LAMP CARTRIDGES (TRANSLUCENT)

Stock No.	Type	Lens Color	1-99
(6-Volt, 0.2-Amp.)			
25F1110	39-6-971	Red	1.17
25F1111	39-6-972	Green	
25F1112	39-6-973	Amber	
25F1113	39-6-974	Blue	
25F1114	39-6-975	White	
25F1115	39-6-976	Lt. Yellow	
(14-Volt, 0.08-Amp.)			
25F1116	39-14-971	Red	1.17
25F1117	39-14-972	Green	
25F1118	39-14-973	Amber	
25F1119	39-14-974	Blue	
25F1120	39-14-975	White	
25F1121	39-14-976	Lt. Yellow	
(28-Volt, 0.04 Amp.)			
25F1122	39-28-971	Red	1.17
25F1123	39-28-972	Green	
25F1124	39-28-973	Amber	
25F1125	39-28-974	Blue	
25F1126	39-28-975	White	
25F1127	39-28-976	Lt. Yellow	

(E) SHORT CYLINDRICAL INCANDESCENT LAMP CARTRIDGES

(6-Volt, 0.2-Amp.)			
25F1128	39-6-1471	Red	1.17
25F1129	39-6-1472	Green	
25F1130	39-6-1473	Amber	
25F1131	39-6-1474	Blue	
25F1132	39-6-1475	White	
25F1133	39-6-1476	Lt. Yellow	
(14-Volt, 0.08-Amp.)			
25F1134	39-14-1471	Red	1.17
25F1135	39-14-1472	Green	
25F1136	39-14-1473	Amber	
25F1137	39-14-1474	Blue	
25F1138	39-14-1475	White	
25F1139	39-14-1476	Lt. Yellow	
(28-Volt, 0.04 Amp.)			
25F1140	39-28-1471	Red	1.17
25F1141	39-28-1472	Green	
25F1142	39-28-1473	Amber	
25F1143	39-28-1474	Blue	
25F1144	39-28-1475	White	
25F1145	39-28-1476	Lt. Yellow	

(K—N) DIALCO DATALITES with PERMANENT NEON LAMPS

Lamps are built-in—not replaceable
Units mount in 3/8" clearance hole

Built-in: a rugged, long-lived NE-2E Neon Glow Lamp with formed tip and double length electrodes—1/25 watt, starting voltage of 65 AC and 90 DC. Available with built-in resistor of 100,000 ohms for 105-125 V. service. MIL-R-11 resistors. Lightweight, aluminum construction. Black anodized finish. Plastic lenses give good angle visibility. 2 insulated terminals of low carbon steel, electro tin plated. Moulded insulation of Mil. Spec. grade. Conform to military specifications (MIL-L-3661). Complete with mounting hardware and built-in lamp.

(K) Without Built-In Resistor

(1 25/64"x½" Overall: 1½ Oz. Shpg. Wt.)

Stock No.	Mfr. Type	Lens Color	1-99
25F1146	249-7840-931	Red	1.07
25F1147	249-7840-933	Amber	
25F1148	249-7840-935	White	
25F1149	249-7840-936	Light Yellow	
25F1150	249-7840-937	Clear	

(L) With Built-In 100-K Resistor

(1 53/64"x½" Overall; 2 Oz. Shpg. Wt.)

25F1151	249-7841-931	Red	1.34
25F1152	249-7841-933	Amber	
25F1153	249-7841-935	White	
25F1154	249-7841-936	Light Yellow	
25F1155	249-7841-937	Clear	

(M) Without Built-In Resistor

(1 25/64"x½" Overall; 1½ Oz. Shpg. Wt.)

25F1156	249-7840-1431	Red	1.07
25F1157	249-7840-1433	Amber	
25F1158	249-7840-1435	White	
25F1159	249-7840-1436	Light Yellow	
25F1160	249-7840-1437	Clear	

(N) With Built-In 100-K Resistor

(1 53/64"x½" Overall; 2 oz. Shpg. Wt.)

25F1161	249-7841-1431	Red	1.34
25F1162	249-7841-1433	Amber	
25F1163	249-7841-1435	White	
25F1164	249-7841-1436	Light Yellow	
25F1165	249-7841-1437	Clear	

GREEN or BLUE LENSES are not recommended for use with Neon Lamps.

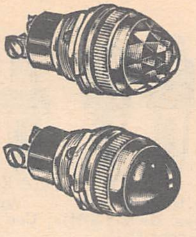
HOT-STAMPED LEGENDS

(Digits, Letters, or Symbols)

Cylindrical Lenses accommodate standard BLACK letters: 1 Digit, 11/64" high (14-pt type); 2 Digits, 7/64" high (10-pt. type). (Others quoted on request).
Stamping only. 1-99. EACH......:06

DIALCO® PILOT LIGHT ASSEMBLIES

OIL-TIGHT ASSEMBLIES



Enclosed assemblies for heavy duty industrial applications. Rugged binding screw terminals. Caps unscrew from face of panel. Lamps quickly replaceable. One-piece solid brass mounting bushing. Fully gasketed with oil-proof gaskets. Gaskets are "retained"; no loss of seal. Solid brass knurled lens holder, satin chrome finish. Gasketed lens. Glass lens gives omni-directional (180°) light spread. High impact phenolic insulation. Supplied less lamp. 1$\frac{3}{16}$x1$\frac{7}{8}$". Mounting hardware (split lockwasher and hex nut). Average Shipping wt., 3 oz.

FOR 6S6 SCREW BASE LAMP

Torpedo Faceted Lens			Dome Lens (Frosted Back)	
Stk. No.	**Mfg. No.**	**Lens Color**	**Stk. No.**	**Mfg. No.**
25F500	103-3101-1331	Red	25F507	103-3101-1211
25F501	103-3101-1332	Green	25F508	103-3101-1212
25F502	103-3101-1333	Amber	25F509	103-3101-1213
25F503	103-3101-1334	Blue	25F510	103-3101-1214
25F504	103-3101-1335	White*	25F511	103-3101-1235
25F505	103-3101-1336	Yellow	25F512	103-3101-1216
25F506	103-3101-1337	Clear	25F513	103-3101-1217

*Translucent unfrosted.

1-9..........................2.20 ea. 10-24..........................1.98 ea.

SAME AS ABOVE, BUT FOR 6S6 BAYONET BASE LAMP

Torpedo Faceted Lens			Dome Lens (Frosted Back)	
Stk. No.	**Mfg. No.**	**Lens Color**	**Stk. No.**	**Mfg. No.**
25F514	103-3502-1331	Red	25F521	103-3502-1211
25F515	103-3502-1332	Green	25F522	103-3502-1212
25F516	103-3502-1333	Amber	25F523	103-3502-1213
25F517	103-3502-1334	Blue	25F524	103-3502-1214
25F518	103-3502-1335	White*	25F525	103-3502-1235
25F519	103-3502-1336	Yellow	25F526	103-3502-1216
25F520	103-3502-1337	Clear	25F527	103-3502-1217

*Translucent unfrosted.

1-9..........................2.20 ea. 10-24..........................1.98 ea.

OIL-TIGHT ASSEMBLIES FOR 1" MOUNTING HOLE

Uses Neon Glow Lamps

For use with the NE-45 candelabra screw base lamp. Resistor built-in the lamp base. Overall size approx. 1$\frac{3}{16}$x2$\frac{7}{32}$'. Comes with split lockwasher and hex nut. Less lamp. Shpg. wt., 3 ozs.

Dome Style Unfrosted Lens except † Frosted back.

Stk. No.	Mfg. No.	Lens Color	1-9	10-24
25F551	103-3114-1231	Red	2.20	1.98
25F552	103-3114-1233	Amber		
25F553	103-3114-1236	Yellow		
25F554	103-3114-1237	Clear		
25F555	103-3114-1217	Clear†		

OIL-TIGHT PILOT LIGHTS FOR USE WITH NE 51

For 11/16" Mounting Hole

Fluted Stovepipe Lens			Plain Stovepipe Lens	
Stk. No.	**Mfg. No.**	**Lens Color**	**Stk. No.**	**Mfg. No.**
25F528	125-408-1191	Red	25F532	125-408-1131
25F529	125-408-1193	Amber	25F533	125-408-1133
25F530	125-408-1196	Yellow	25F534	125-408-1136
25F531	125-408-1197	Clear	25F535	125-408-1137
....	....	Clear*	25F536	125-408-1117

*Frosted back.

1-9..........................1.94 ea. 10-24..........................1.74 ea.

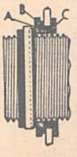
FOR LOW VOLTAGE T-3¼ MINIATURE BAYONET BASE LAMP

Fluted Stovepipe Lens			Frosted Back Stovepipe Lens	
Stk. No.	**Mfg. No.**	**Lens Color**	**Stk. No.**	**Mfg. No.**
25F537	125-410-1191	Red	25F544	125-410-1111
25F538	125-410-1192	Green	25F545	125-410-1112
25F539	125-410-1193	Amber	25F546	125-410-1113
25F540	125-410-1194	Blue	25F547	125-410-1114
25F541	125-410-1195	White*	25F548	125-410-1135
25F542	125-410-1196	Yellow	25F549	125-410-1116
25F543	125-410-1197	Clear	25F550	125-410-1117

*Translucent unfrosted.

1-9..........................1.94 ea. 10-24..........................1.74 ea.

ADAPTOR SET



Type 1316-L. For mounting any 1" Dialco assembly in 1$\frac{3}{16}$" clearance hole. Reducer (A) is equipped with gasket (B) to fit the 1$\frac{3}{16}$" clearance hole, and a washer (C) for under panel mounting. Retained oil-resistant gasket on the reducer assures the same oil-water-and-dust tightness that is obtained on standard Dialco assemblies. Wt., 1 oz.

25F912. 1-9 .... **73¢**
10-24 .... **66¢**

SUB-MINIATURE PILOT LIGHTS
TWO TERMINALS—FULLY INSULATED

A-1

B-1

C-1

Conform to all applicable Military Specs. Overall average length approx. 1¼". Use tiny T-1¾ bulbs; voltages from 1.3 to 28. Lamp replaceable from front of panel. These sub-miniature assemblies are made for either back mounting (Fig. A-1) through a 1$\frac{5}{32}$" clearance hole; or for front panel mounting (Fig. B-1) through a 1$\frac{7}{32}$" clearance hole. Units are ideal for every miniaturization use, civilian or military. Caps unscrew from face of panel, and replacement of lamp is easy and rapid. The stovepipe style (dome) lens is made from high heat plastic and affords 180° visibility of light. Positive insulation is assured—lamp, socket, and all connections are completely insulated from the bushing and panel. Phenolic material of military specification grade. Ruggedly made of brass with standard finish of black-nickel. Will withstand usual vibration and corrosion tests. Terminals are perforated for wire and tinned for easy soldering. Size range, average, approx. ½x1¼". Comes with lockwasher and nut. Less lamp. Wt., 1½ oz.

Illust. A-1. 2 Terminal Pilot Light With Plastic Dome
For back of panel insertion, mounts in 1$\frac{5}{32}$" clearance hole.

Stk. No.	Mfg. No.	Lens Color	1-9	10-24
25F556	101-3830-971	Red	1.24	1.12
25F557	101-3830-972	Green		
25F558	101-3830-973	Amber		
25F559	101-3830-974	Blue		
25F560	101-3830-975	White		
25F561	101-3830-976	Yellow		

Illust. B-1. 2 Terminal Pilot Light With Plastic Dome
For front of panel insertion, mounts in 1$\frac{7}{32}$" clearance hole.

Stk. No.	Mfg. No.	Lens Color	1-9	10-24
25F562	101-5030-971	Red	1.24	1.12
25F563	101-5030-972	Green		
25F564	101-5030-973	Amber		
25F565	101-5030-974	Blue		
25F566	101-5030-975	White		
25F567	101-5030-976	Yellow		

Illust. C-1. FROSTED BACK With Convex Lens
General purpose, rugged; metal lens holder, glass lens. Unscrews for easy lamp replacement. Complete with internal tooth lockwasher and nut. Less lamp. Shpg. wt., 1½ oz. Mounts in 1$\frac{5}{32}$" clearance hole. Non-dimming.

Stk. No.	Mfg. No.	Lens Color	1-9	10-24
25F568	111-3830-111	Red	1.56	1.40
25F569	111-3830-112	Green		
25F570	111-3830-113	Amber		
25F571	111-3830-114	Blue		
25F572	111-3830-135	White*		
25F573	111-3830-116	Yellow		
25F574	111-3830-117	Clear		

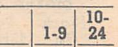
*Translucent unfrosted

NEON SUB-MINIATURES MS25257

Uses tiny T-2 Neon Glow Lamp (designated as NE-2D). Since Neon lamps require a resistor to limit the lamp current, in Dialco assemblies the resistor is BUILT-IN as an integral part of the unit (a patented feature—U.S. Pat. No. 2,421,321). For use on 105-125 volts AC or DC. Stovepipe lens is molded of high heat plastic, gives 180° light spread. Shank of lens holder is crimped in 3 evenly spaced places to secure the lamp. Lens holder unscrews from front of panel for easy replacement of lamp. An anti-rotation notch on the face of the flange prevents rotation of unit while mounting nut is being tightened. Mounting bushing is aluminum with black alumilite finish. Steel internal-tooth lockwasher and hex mounting nut are cadmium plated and coated with iridite. Terminals are brass, hot-tinned, with elongated slots. Overall unit size 1½x⅝". Shipping weight, 1½ oz. Less lamp.

Stock No.	Mfg. No.	Mil. Std. Dwg. No.	Cap Color	1-9	10-24
25F1200	137-8836-933	MS25257-2	Aviation Yellow	2.17	1.95
25F1201	137-8836-931	MS25257-4	Identification Red		
25F1202	137-8836-937	MS25257-6	Clear (Colorless)		

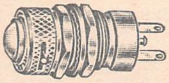
INCANDESCENT SUB-MINIATURES MS 25256



Similar to MS25257 except it uses T-1¾ incandescent lamps of 1.3 to 28 v. Overall unit size: 1$\frac{3}{32}$x⅝". Shipping weight, 1½ oz. Less lamp.

Stock No.	Mfg. No.	Mil. Std. Dwg. No.	Cap Color	1-9	10-24
25F1203	162-8430-933	MS25256-2	Aviation Yellow	1.19	1.07
25F1204	162-8430-932	MS25256-4	Aviation Green		
25F1205	162-8430-931	MS25256-6	Identification Red		
25F1206	162-8430-937	MS25256-8	Clear (Colorless)		
25F1207	162-8430-975	MS25256-10	Translucent White		
25F1208	162-8430-934	MS25256-12	Aviation Blue		

2-TERMINAL DIMMER TYPES—SUB-MIN. MECHANICAL OR POLAROID



Conforms to all applicable MIL specifications. Polaroid: produces some reduced intensity at all settings but gives full diameter opening. Mechanical: varies opening size to complete blackout or has permanent small opening as in "semi-blackout" type. Complete with lockwasher and nut; use T-1¾ lamp. Less lamps. Shpg. wt. 1½ ozs. All frosted on back except *Translucent unfrosted. Mounts in 15⁄32" dia. hole.

Semi-Blackout

No.	Mfg. No.	Lens Color	1-9	10-24
25F575	109-3830-111	Red	1.92	1.73
25F576	109-3830-112	Green		
25F577	109-3830-113	Amber		
25F578	109-3830-114	Blue		
25F579	109-3830-135	White*		
25F580	109-3830-116	Yellow		
25F581	109-3830-117	Clear		

Blackout

No.	Mfg. No.	Lens Color	1-9	10-24
25F582	108-3830-111	Red	1.92	1.73
25F583	108-3830-112	Green		
25F584	108-3830-113	Amber		
25F585	108-3830-114	Blue		
25F586	108-3830-135	White*		
25F587	108-3830-116	Yellow		
25F588	108-3830-117	Clear		

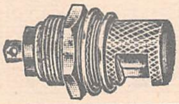
Polaroid

No.	Mfg. No.	Lens Color	1-9	10-24
25F589	112-3830-111	Red	1.92	1.73
25F590	112-3830-112	Green		
25F591	112-3830-113	Amber		
25F592	112-3830-114	Blue		
25F593	112-3830-135	White*		
25F594	112-3830-116	Yellow		
25F595	112-3830-117	Clear		

1-TERMINAL UNITS—FOR GROUNDED CIRCUITS MOUNT IN 15/32" CLEARANCE HOLE

Same features as the 2-terminal assemblies except for use on grounded circuits and with either soldering or binding screw terminal. Molded phenolic insulation material of military specification grade. As required by MIL-L-7806-A, the movable contact is a solid brass part and the spring does not carry current. Black nickel finish. Overall size, approx. 1¼"x½". Cap unscrews for bulb replacement. (T-1¾ type). With lockwasher and nut. Less lamp. Shpg. wt. 1½ ozs. *Translucent unfrosted.

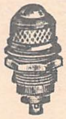
1-TERMINAL LIGHT SHIELD SUB-MINIATURE FOR DIALS, INSTRUMENTS, CONTROL PANELS



Mtg. hole 15⁄32" d. Opening is ¼"x3⁄16". Shpg. wt. 1½ oz.

No.	Mfg. No.	Description	1-9	10-24
25F910A.	4-1930	Blk Nkl. Solder Term	1.59	1.43
25F911A.	4-1830	Blk Nkl. Screw Term		
25F911B.	4-1830	Chrome. Screw Term		
25F910B.	4-1930	Chrome. Solder Term		

DIALCO SUB-MINIATURE PILOT LIGHTS 1-TERMINAL NON-DIMMING ASSEMBLIES



Conform to All Applicable Military Specifications
Specifications same as Type 109 above.

FROSTED BACK
For T-1¾ lamp.
With Binding Screw Terminal

No.	Mfg. No.	Lens Color	1-9	10-24
25F596	8-1830-111	Red	1.24	1.12
25F597	8-1830-112	Green		
25F598	8-1830-113	Amber		
25F599	8-1830-114	Blue		
25F900	8-1830-135	White*		
25F901	8-1830-116	Yellow		
25F902	8-1830-117	Clear		

With Soldering Terminal

No.	Mfg. No.	Lens Color	1-9	10-24
25F903	8-1930-111	Red	1.24	1.12
25F904	8-1930-112	Green		
25F905	8-1930-113	Amber		
25F906	8-1930-114	Blue		
25F907	8-1930-135	White*		
25F908	8-1930-116	Yellow		
25F909	8-1930-117	Clear		

1 TERMINAL DIMMER ASSEMBLIES

Black nickel finish (Mechanical or Polaroid)
Semi-blackout type—Soldering terminal

No.	Mfg. No.	Lens Color	1-9	10-24
25F913	2-1930-111	Red	1.56	1.40
25F914	2-1930-112	Green		
25F915	2-1930-113	Amber		
25F916	2-1930-114	Blue		
25F917	2-1930-135	White*		
25F918	2-1930-116	Yellow		
25F919	2-1930-117	Clear		

As below left—with binding screw terminal.

No.	Mfg. No.	Lens Color	1-9	10-24
25F920	2-1830-111	Red	1.56	1.40
25F921	2-1830-112	Green		
25F922	2-1830-113	Amber		
25F923	2-1830-114	Blue		
25F924	2-1830-135	White*		
25F925	2-1830-116	Yellow		
25F926	2-1830-117	Clear		

*Translucent unfrosted.

Complete Blackout Type—Soldering Terminal

No.	Mfg. No.	Lens Color	1-9	10-24
25F927	11-1930-111	Red	1.56	1.40
25F928	11-1930-112	Green		
25F929	11-1930-113	Amber		
25F930	11-1930-114	Blue		
25F931	11-1930-135	White*		
25F932	11-1930-116	Yellow		
25F933	11-1930-117	Clear		

*Translucent unfrosted.

As above—with binding screw terminal.

No.	Mfg. No.	Lens Color	1-9	10-24
25F934	11-1830-111	Red	1.56	1.40
25F935	11-1830-112	Green		
25F936	11-1830-113	Amber		
25F937	11-1830-114	Blue		
25F938	11-1830-135	White*		
25F939	11-1830-116	Yellow		
25F940	11-1830-117	Clear		

*Translucent unfrosted.

Polaroid Type—Soldering Terminal

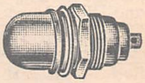
No.	Mfg. No.	Lens Color	1-9	10-24
25F941	3-1930-111	Red	1.56	1.40
25F942	3-1930-112	Green		
25F943	3-1930-113	Amber		
25F944	3-1930-114	Blue		
25F945	3-1930-135	White*		
25F946	3-1930-116	Yellow		
25F947	3-1930-117	Clear		

*Translucent unfrosted.

As above—with binding screw terminal.

No.	Mfg. No.	Lens Color	1-9	10-24
25F948	3-1830-111	Red	1.56	1.40
25F949	3-1830-112	Green		
25F950	3-1830-113	Amber		
25F951	3-1830-114	Blue		
25F952	3-1830-135	White*		
25F953	3-1830-116	Yellow		
25F954	3-1830-117	Clear		

1 Terminal Plastic Dome Assembly



Available with single soldering terminal or binding screw terminal. Diffusing type lens cap. For T-1¾ lamps. Completely diffusing colors. Shpg. wt. 1½ oz.

With Soldering Terminal

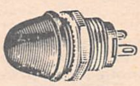
No.	Mfg. No.	Lens Color	1-9	10-24
25F955	107-1930-971	Red	1.24	1.12
25F956	107-1930-972	Green		
25F957	107-1930-973	Amber		
25F958	107-1930-974	Blue		
25F959	107-1930-975	Opal		
25F960	107-1930-976	Yellow		

As above—with binding screw terminal.

No.	Mfg. No.	Lens Color	1-9	10-24
25F961	107-1830-971	Red	1.24	1.12
25F962	107-1830-972	Green		
25F963	107-1830-973	Amber		
25F964	107-1830-974	Blue		
25F965	107-1830-975	Opal		
25F966	107-1830-976	Yellow		

2-TERMINAL SUB-MINIATURE WATER-TIGHT INDICATOR LIGHTS

(Also see other Dialco page for large oil-tight indicator lights)

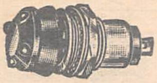


With retained "O" ring seal. Mount from front of panel in 15⁄32" clearance hole. Accommodate tiny T-1¾ midget flanged base incandescent lamps (MS25237); voltages from 1.3 to 28. Translucent stovepipe lenses. Two terminals, fully insulated. Mt. bushing, aluminum with black anodized finish. Soldering terminals, brass, with elongated slots. Internal-tooth lockwasher and hex mounting nut, steel, cadmium plated with iridite coating. Overall size, ⅝"x13⁄16" long. Less lamp. Av. shpg. wt., 2 oz.

Stk. No.	Mfg. No.	Lens Color	1-9	10-24
25F1212	177-8430-971	Red	1.62	1.44
25F1213	177-8430-972	Green		
25F1214	177-8430-973	Amber		
25F1215	177-8430-974	Blue		
25F1216	177-8430-975	White		
25F1217	177-8430-976	Yellow		

DIALCO® PILOT LIGHT ASSEMBLIES

DIALCO SERIES TT-61
For Plastic Plate Edge Lighting



Meet all requirements of MIL-L-7806. Mount in $\frac{15}{32}''$ clearance hole. For MIL-P-7788 plastic plate panels. Emits light through red filter radially into the plastic plate. Complete unit: bushing with nut and lockwasher, and lamp holder which combines filter and an opaque cap. A resilient black-light seal washer is fitted to lamp. Bushing adapted for mtg. on backing up plate which is counter-sunk for the flange of the bushing. Also available with light emitting top in various colors. $\frac{1}{2}$x $1\frac{7}{16}''$. Finish, Cadmium plate. With internal tooth lockwasher; hex nut. Less lamp (T-$1\frac{3}{4}$). Shpg. wt. $1\frac{1}{2}$ ozs.

EDGE LIGHTING ASSEMBLIES

No.	Mfg. No.	Filter Color	Term.	1-99
25F967	TT61*	Red	Solder	.62
25F968	TT62†	Red	Screw	
25F969	TT61-B2	Green	Solder	
25F970	TT62-B2	Green	Screw	
25F971	TT61-B3	Amber	Solder	
25F972	TT62-B3	Amber	Screw	
25F973	TT61-B7	Clear	Solder	
25F974	TT62-B7	Clear	Screw	

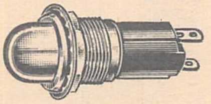
*MS25010-2A †MS25010-4A

LIGHT EMITTING TOP ASSEMBLIES

No.	Mfg. No.	Filter Color	Term.	1-99
25F975	TT61-R1*	Red	Solder	.62
25F976	TT62-R1†	Red	Screw	
25F977	TT61-G2	Green	Solder	
25F978	TT62-G2	Green	Screw	
25F979	TT61-A3	Amber	Solder	
25F980	TT62-A3	Amber	Screw	
25F981	TT61-C7	Clear	Solder	
25F982	TT62-C7	Clear	Screw	

*MS25010-6A †MS25010-8A

NEON INDICATOR LIGHTS WITH PATENTED BUILT-IN RESISTOR
Also With New High Brightness Neon Glow Lamps NE-51H



TWO TYPES. (1) Series 95408X (with Soldering lugs) and Series 951308X (with Screw Terminals). Enclosed neon indicator light has 56,000 ohm $\frac{1}{3}$ watt resistor built-in for use with NE-51 NEON lamp on 105-125 volt AC-DC circuits . . . (2) Series 95408XH (Lugs) and Series 951308XH (Screw) have built-in resistor of 18,000 ohms for use with NE-51H High Brightness NEON GLOW lamp on 105-125 volt AC circuits. Black nickel finish . . . Resistors are completely insulated. $2\frac{1}{16}''$ long, $1\frac{1}{16}''$ mounting hole. Meets MIL-L-3661 and UL, CSA requirements. Less lamp. 3 oz.

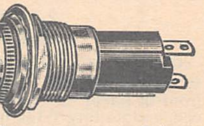
Cap Color	Mfg. Type	95408X (lug)	951308X (screw)	*95408XH (lug)	*951308XH (screw)	1-9	10-24
Red	931	25F1010	25F1014	25F1085	25F1089	1.19	1.07
Amber	933	25F1011	25F1015	25F1086	25F1090		
White	935	25F1012	25F1016	25F1087	25F1091		
Clear	937	25F1013	25F1017	25F1088	25F1092		

*HIGH BRIGHTNESS ASSEMBLIES HAVE SUFFIX "H".

As above, less resistors, for min. bayonet pilot lamps:

Cap Color	Mfg. Type	95410X (Lugs)	951310X (Screws)	1-9	10-24
Red	931	25F1020	25F1027	1.19	1.07
Green	932	25F1021	25F1028		
Amber	933	25F1022	25F1029		
Blue	934	25F1023	25F1030		
White	935	25F1024	25F1031		
Yellow	936	25F1025	25F1032		
Clear	937	25F1026	25F1033		

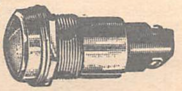
HALF-INCH ENCLOSED INDICATOR LIGHT
Meets highest Mil Requirements



Series 81410X (With Soldering Lugs) . . . and Series 811310X (With Screw Terminals). Newly designed aviation type. Socket shell encased in moulded phenolic of Mil-M-14 grade. Ideal for use under severe conditions. Smooth faced jewels in $\frac{1}{2}''$ brass holder with black nickel finish. For miniature bayonet base lamp, removable from front of unit. $2\frac{1}{4}''$ long, mounts in $\frac{11}{16}''$ hole in panels up to $\frac{3}{8}''$ thick. Less lamp. Shipping wt., 3 ozs.

Cap Color	Type	81410X (Lugs)	811310X	1-9	10-24
Red	111	25F1035	25F1042	1.19	1.07
Green	112	25F1036	25F1043		
Amber	113	25F1037	25F1044		
Blue	114	25F1038	25F1045		
White	135	25F1039	25F1046		
Yellow	116	25F1040	25F1047		
Clear	117	25F1041	25F1048		

U.L. APPROVED NEON PANEL ASSEMBLY



SERIES 31914. Dial light assemblies for use with NE-45 neon glow lamps in 115 volt circuits. Candelabra socket; lamp removable from front. $2\frac{5}{8}''$ long. Require 1" hole for mounting. Available in four colors. Supplied less neon glow lamps. 4 oz.

No.	Type	Color	1-9	10-24
25F410	111	Red	1.22	1.10
25F411	113	Amber		
25F413	117	Clear		
25F414	135	White		

DIALCO TELEPHONE SLIDE BASE INDICATOR LIGHTS
SERIES 70428-XP10

Mount from back of panel in $\frac{9}{16}''$ clearance hole. Accommodates T-2 incandescent bulb with telephone slide base. Mounting bushing and screw-on lens holder, brass, with polished chrome finish. **Stovepipe lens** of butyrate plastic, with smooth face and back. Lamp protrudes into lens cavity for easy replacement from front of panel without tools. Furnished with knurled ring, internal-tooth lockwasher and hex mounting nut. Soldering terminals. Overall size, $\frac{13}{16}''$x$2\frac{15}{16}''$ long. Less lamp. Avg. shpg. wt., 3 oz.

Stock No.	Mfg. No.	Lens Color	1-9	10-24
25F1218	70428-XP10-931	Red	1.32	1.20
25F1219	70428-XP10-932	Green		
25F1220	70428-XP10-933	Amber		
25F1221	70428-XP10-934	Blue		
25F1222	70428-XP10-935	White		

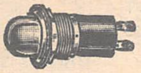
DIALCO TELEPHONE SLIDE BASE INDICATOR LIGHTS
SERIES 37428-XP15

Same as above except for lens shape which is **convex** with smooth face and frosted back. Overall size, $\frac{13}{16}''$x$2\frac{7}{16}''$ long. Less lamp. Average shipping weight, 3 ounces.

Stock No.	Mfg. No.	Lens Color	1-9	10-24
25F1223	37428-XP15-111	Red	1.19	1.09
25F1224	37428-XP15-112	Green		
25F1225	37428-XP15-113	Amber		
25F1226	37428-XP15-114	Blue		
25F1227	37428-XP15-135	White*		

*Translucent, unfrosted.

DIALCO NEON PANEL ASSEMBLY



Enclosed neon pilot light assemblies now available in two types: (1) With built in 56,000 ohm resistor for NE-51 105-125V, AC or DC, or (2) With built-in resistor of 18,000 ohms for use with NE-51H high brightness neon glow lamp 105-125V, AC or DC. Plastic head, phenolic body, $2\frac{1}{16}''$ long, $1\frac{1}{16}''$ mtg. hole. Less lamp. UL approved. Shipping weight, 3 oz.

For NE-51

Cap Color	Type	952208 (Lugs)	955908 (Screws)	NET EACH
Red	931	25F1050	25F1054	.68
Amber	933	25F1051	25F1055	
White	935	25F1052	25F1056	
Clear	937	25F1053	25F1057	

For NE-51H

(High Brightness)

Cap Color	Type	952208H (Lugs)	955908H (Screws)	NET
Red	931	25F1170	25F1174	.68
Amber	933	25F1171	25F1175	
White	935	25F1172	25F1176	
Clear	937	25F1173	25F1177	

Green and blue not recommended for use with NEON lamps.

As above, less resistor, for miniature bayonet pilot lamps. 952210 (With soldering Lugs) . . . 955910 (With screw term.)

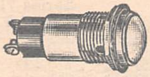
Cap Color	Mfg. Type	952210 (Lugs)	955910 (Screws)	NET EACH
Red	931	25F1060	25F1067	.68
Green	932	25F1061	25F1068	
Amber	933	25F1062	25F1069	
Blue	934	25F1063	25F1070	
White	935	25F1064	25F1071	
Yellow	936	25F1065	25F1072	
Clear	937	25F1066	25F1073	

PILOT LIGHT ASSEMBLIES

DIALCO®

1" ENCLOSED PILOT LIGHTS

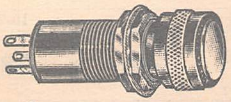
SERIES 313101



U.L. approved types. 115 volt enclosed pilot light assemblies. Brass and phenolic. Faceted jewel chrome plated brass holder. Candelabra socket. Bulb removable from front. Requires 1" hole for mounting. Less bulb. Weight, 5 oz.

Stk. No.	Type	Color	1-9	10-24
25F370	431	Red	1.22	1.10
25F371	432	Green		
25F372	433	Amber		
25F373	437	Clear		

DIALCO PRESS-TO-TEST INDICATOR LIGHTS



A

B

Have patented built-in bulb testing device and optional shutter dimming device. Cap removable from face of panel for easy lamp replacement. A slight pressure on the face of the unit "breaks" the normal circuit and "makes" a test circuit. If lamp lights up when pressed in, it is satisfactory. If it fails to light, the bulb is defective. Equipped with 3 soldering terminals: 2 for "normal" circuit and the 3rd for the "test" circuit. Press-to-test units are widely used in military and commercial circuit as well as in civilian industries. Provides concentrated 180° visible light beam for daylight; indirect "halo" light for night. All units are completely enclosed. Use T-1¾ midget flange base lamps and T-3¼ min. bay. base lamps. Supplied less lamp. Standard finish, black alumilite. Shpg. wt., 1 oz.

(A) DIALCO SERIES VM-911

Mount in ⅝" clearance hole. Overall size approx. ⅞x2¼". Shpg. wt., 1½ ozs. This series is similar to the VM-911M series, except that the assemblies are larger in size to accommodate T-3¼ lamp with miniature bayonet base. Supplied less lamp.

WITH MECHANICAL SHUTTER DIMMER

Stock No.	Mfr. No.	Mil. Type No.	Lens Color	1-24	25-99
25F998	VM-911-1A	MS25331-1	Clear	2.19	1.91
25F991	VM-911-2A	MS25331-2	Red		
25F992	VM-911-3A	MS25331-3	Green		
25F993	VM-911-4A	MS25331-4	Amber		

WITHOUT DIMMER

Stock No.	Mfr. No.	Mil. Type No.	Lens Color	1-24	25-99
25F994	VM-911-5A	MS25331-5	Clear	2.19	1.91
25F995	VM-911-6A	MS25331-6	Red		
25F996	VM-911-7A	MS25331-7	Green		
25F997	VM-911-8A	MS25331-8	Amber		

(B) DIALCO SERIES VM-911M

⅝"x1⅜". Mount in 15⁄32" clearance hole. For T-1¾ lamp.

WITH MECHANICAL SHUTTER DIMMER

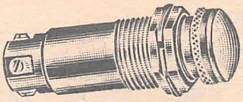
Stk. No.	Mfr. No.	Mil. Type No.	Lens Color	1-24	25-99
25F983	VM-911M-1A	MS25041-1	Clear	2.19	1.91
25F984	VM-911M-2A	MS25041-2	Red		
25F985	VM-911M-3A	MS25041-3	Green		
25F986	VM-911M-4A	MS25041-4	Amber		

WITHOUT DIMMER

Stk. No.	Mfr. No.	Mil. Type No.	Lens Color	1-24	25-99
25F987	VM-911M-5A	MS25041-5	Clear	2.19	1.91
25F988	VM-911M-6A	MS25041-6	Red		
25F989	VM-911M-7A	MS25041-7	Green		
25F990	VM-911M-8A	MS25041-8	Amber		

DIALCO SERIES VM-106

Conform to All Applicable Military Specifications

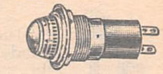


Press-to-test assemblies (without dimmer). Mounts in 1" clearance hole. Overall size approx. 1¼x3¼". Three rugged binding screw terminals: 2 for "normal" circuit; 1 for "test" circuit. Uses S6 bulbs with candelabra screw base. Supplied less lamp. Shpg. wt. 3 oz.

Stk. No.	Mfg. No.	Lens Color	1-24	25-99
25F999	VM-106-111	Red	3.44	3.01
25F1000	VM-106-112	Green		
25F1001	VM-106-113	Amber		
25F1002	VM-106-114	Blue		
25F1003	VM-106-135	White*		
25F1004	VM-106-116	Yellow		
25F1005	VM-106-117	Clear		

*Translucent unfrosted.

LOW VOLTAGE ENCLOSED SIGNAL ASSEMBLIES

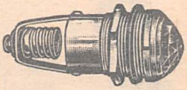


Signal assemblies with smooth faced jewels in ½" white nickel-plated brass holders. Use bayonet base lamp, replaceable from front. 2¼" long; requires 11⁄16" mtg. hole. For panels up to ⅜" thick. Less lamp.

812210 (Lugs)	815910 (Screws)	Cap	Type	NET EA.
25F1075	25F1080	Red	111	56c
25F1076	25F1081	Green	112	
25F1077	25F1082	Amber	113	
25F1078	25F1083	White	135	
25F1079	25F1084	Blue	114	

1" 115 VOLT CANDELABRA ASSEMBLIES

SERIES 75

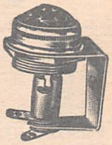


115 volt pilot light assemblies with faceted jewels in holder. Candelabra socket for standard bulbs. Require 1" hole. Less bulbs. Wt., 5 oz.

Stk. No.	Mfg. No.	Color	1-9	10-24
25F374	75C-431	Red	71c	64c
25F375	75C-432	Green		
25F376	75C-433	Amber		
25F377	75C-434	Blue		
25F378	75C-435	White		

ONE-INCH OPEN TYPE ASSEMBLY

SERIES 910



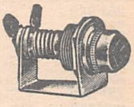
Highly polished chrome-plated brass jewel holders. Use standard bulbs, replaceable from front. 1½"L. Req. 1" mtg. holes. Excellent for power panels, test instruments and electronic equipment. Less bulbs. 3 oz.

Miniature Bayonet Socket

Stk. No.	Mfg. No.	Color	1-9	10-24
25F380	910B-431	Red	71c	64c
25F381	910B-432	Green		
25F382	910B-433	Amber		
25F383	910B-434	Blue		
25F384	910B-435	White		
Miniature Screw Socket				
25F385	910M-431	Red	71c	64c
25F386	910M-432	Green		
25F387	910M-433	Amber		
25F388	910M-434	Blue		
25F389	910M-435	White		
Candelabra Socket				
25F390	910C-431	Red	71c	64c
25F391	910C-432	Green		
25F392	910C-433	Amber		
25F393	910C-434	Blue		
25F394	910C-435	White		

HALF-INCH MINIATURE OPEN TYPE

SERIES 810



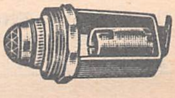
Miniature screw and bayonet socket assemblies with faceted jewels. Mounts in 11⁄16" hole. Bulb removable from front. With tinned solder lugs. Less bulbs. Shipping wt., 3 oz.

With Miniature Screw Socket

Stk. No.	Mfg. No.	Color	1-9	10-24
25F400	810M431	Red	32c	29c
25F401	810M432	Green		
25F402	810M433	Amber		
25F403	810M434	Blue		
25F404	810M435	White		
With Miniature Bayonet Socket				
25F405	810B431	Red	32c	29c
25F406	810B432	Green		
25F407	810B433	Amber		
25F408	810B434	Blue		
25F409	810B435	White		

HALF-INCH OPEN BAYONET TYPE

SERIES 857B



Open type pilot light assembly. Has miniature bayonet type socket. Half-inch jewel. 2" long. Requires 11⁄16" mtg. hole. Designed for mounting on panels up to ¼" thick. With mtg. washers, less lamp. Tinned lugs. 4 oz.

Stk. No.	Type	Color	1-9	10-24
25F470	431	Red	44c	40c
25F471	432	Green		
25F472	433	Amber		
25F473	434	Blue		

SOCKETS, LIGHTS AND HARDWARE

DIALCO SOCKETS AND PILOT LIGHT ACCESSORIES

HALF-INCH OPEN TYPE

For use on amplifiers, racks, etc. Complete with candelabra, bayonet or min. screw base sockets for standard pilot light bulbs. Faceted jewels in nickel plated brass holders. Lug terminals. Requires 7/16'' hole for mtg. Less bulbs. Wt., 2 oz.

Series 510 with Miniature Screw Socket

Stk. No.	Mfg. No.	Color	1-9	10-24
25F350	510-431	Red	21c	19c
25F351	510-432	Green		
25F352	510-435	White		
25F353	510-433	Amber		
25F354	510-434	Blue		

Series 710 with Miniature Bayonet Socket

Stk. No.	Mfg. No.	Color	1-9	10-24
25F355	710-431	Red	21c	19c
25F356	710-432	Green		
25F357	710-433	Amber		
25F358	710-434	Blue		
25F359	710-435	White		

Series 10-18-14 Candelabra Socket

Stk. No.	Mfg. No.	Color	1-9	10-24
25F360	10-18-14-431	Red	21c	19c
25F361	10-18-14-432	Green		
25F362	10-18-14-433	Amber		
25F363	10-18-14-434	Blue		
25F364	10-18-14-435	White		

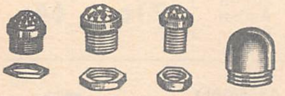
¾-INCH CANDELABRA SOCKET

SERIES 625

115 volt pilot light assemblies with faceted jewels, chrome-plated brass holder. Candelabra socket for standard bulbs requires 1 1/16'' hole for mounting. Less bulbs. 4 oz.

Stk. No.	Mfg. No.	Color	1-9	10-24
25F395	625-431	Red	42c	38c
25F396	625-432	Green		
25F397	625-434	Blue		
25F398	625-433	Amber		

JEWELS FOR PILOT LIGHTS



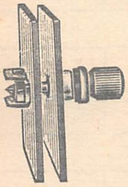
Threaded shanks 3/8'' long. Require 1 1/16'', 7/16'', and 9/32'' mounting holes. 2 oz. *Replacement plastic caps only for types 95408, 951-308, 952209, 952210, 955910.

Stk. No.	Mfg. Type	Dia.	Color	1-9	10-24
25F430	25006—431	¾''	Red	24c	22c
25F431	25006—432	¾''	Green		
25F432	25006—433	¾''	Amber		
25F433	25006—434	¾''	Blue		
25F434	25006—435	¾''	White		
25F435	10006—431	½''	Red	13c	12c
25F436	10006—432	½''	Green		
25F437	10006—433	½''	Amber		
25F438	10006—434	½''	Blue		
25F439	10006—435	½''	White		

Stk. No.	Mfg. Type	Dia.	Color	1-9	10-24
25F440	5006—431	11/32''	Red	13c	12c
25F441	5006—432	11/32''	Green		
25F442	5006—433	11/32''	Amber		
25F443	5006—434	11/32''	Blue		
25F444	5006—435	11/32''	White		
25F466	95—931	Cap*	Red	19c	17c
25F465	95—932	Cap*	Green		
25F467	95—933	Cap*	Amber		
25F474	95—934	Cap*	Blue		
25F468	95—937	Cap*	Clear		
25F469	95—935	Cap*	White		
25F340	53—991	Cap†	Red	19c	17c
25F341	53—992	Cap†	Green		
25F342	53—993	Cap†	Amber		
25F343	53—994	Cap†	Blue		
25F344	53—997	Cap†	Clear		
25F345	53—995	Cap†	White		

†Long Inside Fluted

RAYTHEON CAPTIVE HARDWARE

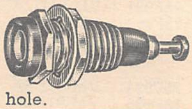


THUMBSCREWS . . . Meets MIL-16400 Specs

Raytheon captive hardware, a line of stainless steel fastening hardware meeting government specifications. A slotted head thumb screw, insert bushing, captivated floating nut, gasket, and gasket retainer make up the full assembly. Meets MIL-E-16400 (Ships) specifications.

Stk. No.	Cat. No.	Thread Size	L	1-499	500-999	1000-2499	2500-4999
26F349	CS-112	10-24NC-2	1	.40	.374	.352	.308
26F350	CS-130	¼-20NC-2	⅞	.51	.468	.440	.385
26F351	CS-131	¼-20NC-2	1	.51	.468	.440	.385
26F352	CS-132	¼-20NC-2	1⅛	.51	.468	.440	.385
26F353	CS-133	¼-20NC-2	1¼	.51	.468	.440	.385
26F355	CS-135	¼-20NC-2	1½	.51	.468	.440	.385
26F356	CS-136	¼-20NC-2	1¾	.51	.468	.440	.385
26F359	CS-142	5 1/16-18NC-2	1½	.76	.706	.664	.581
26F360	CS-143	5 1/16-18NC-2	1¾	.76	.706	.664	.581
26F361	CS-144	5 1/16-18NC-2	2	.76	.706	.664	.581
26F362	CS-100	8-32NC-2	⅝	.36	.332	.312	.273
26F363	CS-101	8-32NC-2	¾	.36	.332	.312	.273
26F364	CS-102	8-32NC-2	⅞	.36	.332	.312	.273
26F368	CS-122	10-32NC-2	1	.40	.374	.352	.308

RAYTHEON TEST JACKS . . . Meets MIL-STD-242 Specs



Meets all requirements of MIL-STD-242 (ships). Consists of a heavy nickel-plated brass bushing, protected by nylon sleeve. Contact assembly is silver plated with a gold wash for lowest contact resistance. Mounts in .261'' dia. hole.

Stk. No.	Type	Mil. No.	Color	1-499	500-999	1000-2499	2500-4999
26F329	276-1594G2	MS16108-8B	Yellow	.26	.238	.224	.196
26F330	276-1594G3	MS16108-4B	Brown				
26F331	276-1594G4	MS16108-2B	Red				
26F333	276-1594G6	MS16108-3B	Black				
26F334	276-1594G7	MS16108-5B	Green				
26F335	276-1594G8	MS16108-7B	Blue				
26F336	276-1594G9	MS16108-1B	White				

GASKETS

Stk. No.	Cat. No.	Screw Size	1-499	500-999	1000-2499	2500-4999
26F399	287-1114P2	¼-20	.03	.0255	.024	.021
26F401	287-1114P4	8-32				

GASKET RETAINER

26F402	GSR-115	10-24 or 10-32	.06	.051	.048	.042
26F403	GSR-116	¼-20				
26F404	GSR-117	5/16-18				
26F405	GSR-118	8-32				

PANEL INSERT

Thread Size: 10-24NC-2

Stk. No.	Cat. No.	Thread Size	For Panel	1-499	500-999	1000-2499	2500-4999
26F377	PIN-113	10-24NC-2	.188	.16	.145	.136	.119
26F378	PIN-114	10-24NC-2	.250	.16	.145	.136	.119

Thread Size: ¼-20NC-2

26F381	PIN-132	¼-20NC-2	.119-.156	.20	.187	.176	.154
26F383	PIN-134	¼-20NC-2	.250	.20	.187	.176	.154

Thread Size: 5/16-18NC-2

26F384	PIN-140	5/16-18NC-2	.048-.072	.26	.238	.224	.196
26F386	PIN-142	5/16-18NC-2	.119-.156	.26	.238	.224	.196
26F387	PIN-143	5/16-18NC-2	.188	.26	.238	.224	.196

Thread Size: 8-32NC-2

Stk. No.	Cat. No.	Thread Size	For Panels	1-499	500-999	1000-2499	2500-4999
26F389	PIN-100	8-32NC-2	.048-.072	.12	.111	.104	.091
26F390	PIN-101	8-32NC-2	.074-.109				
26F391	PIN-102	8-32NC-2	.119-.156				

Thread Size: 10-32NC-2

26F394	PIN-121	10-32NC-2	.074-.109	.16	.145	.136	.119
26F395	PIN-222	10-32NC-2	.119-.156				
26F397	PIN-124	10-32NC-2	.250				

NUT BRACKET

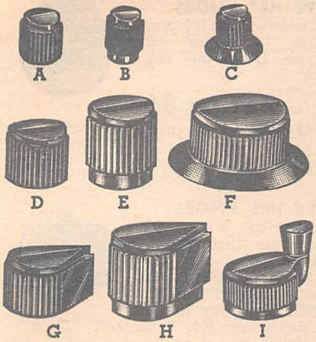
Stk. No.	Cat. No.	Thread Size	1-499	500-999	1000-2499	2500-4999
26F369	NB-100	8-32NC-2	.10	.094	.088	.077
26F371	NB-102	10-32NC-2	.12	.111	.104	.091
26F372	NB-103	¼-20NC-2	.19	.179	.168	.147
26F373	NB-104	5/16-18NC-2	.29	.264	.248	.217

FACTORY COMPETITIVE PRICES

KNOBS, DIALS AND ACCESSORIES

RAYTHEON

RAYTHEON STANDARD CONTROL KNOBS



Molded of black tenite II except 50 series which is acrylonitrile styrene copolymer. Each knob is fitted with an anodized aluminum insert and utilizes two plated, Allen head set screws, 90° apart. Two standard finishes are available: *Mirror finish for commercial equipment, and a non-reflecting "matte" finish, which conforms exactly to military specifications. In a wide variety of types and sizes, these knobs have a rugged, functional design combined with modern, pleasing styling. Av. Shpg. wt. 3 oz.

50 Series—.45" Dia. For ⅛" shafts

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499	500-999
26F194	50-1-1*	Unskirted knob	A	.55	.519	.488	.427
26F195	50-1-1G	Unskirted knob	A	.61	.593	.558	.488
26F196	50-2-1*	Skirted knob	B	.64	.611	.575	.503
26F197	50-2-1G	Skirted knob	B	.70	.655	.616	.539
26F198	50-3-1*	Dial skirted knob	C	.72	.663	.624	.546
26F199	50-3-1G	Dial skirted knob	C	.78	.747	.704	.616

70 Series—.72" Dia. ⅛" Shaft Knobs

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499	500-999
26F339	70-1-1*	Round	D	.76	.723	.680	.595
26F340	70-2-1*	Skirted Round	E	.85	.800	.753	.659
26F341	70-1-1G	Round	D	.82	.774	.728	.637
26F342	70-2-1G	Skirted Round	E	1.24	1.135	1.068	.935
26F343	70-3-1G	Dial Skirted Rnd.	F	1.00	.944	.888	.777
26F344	70-5-1*	Skirted Pointer	H	.85	.800	.753	.659
26F345	70-4-1G	Pointer	G	.82	.774	.728	.637
26F346	70-5-1G	Skirted Pointer	H	.91	.851	.801	.701

70 Series—.72" Dia. For ¼" shafts

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499	500-999
26F150	70-1-2*	Round	D	.70	.655	.616	.539
26F151	70-1-2G	Round	D	.76	.723	.680	.595
26F152	70-2-2*	Skirted Round	E	.79	.748	.704	.616
26F153	70-2-2G	Skirted Round	E	.85	.780	.753	.659
26F154	70-3-2*	Dial-Skirted Rnd	F	.88	.833	.784	.686
26F155	70-3-2-G	Dial-Skirted Rnd	F	.94	.892	.839	.734
26F156	70-4-2*	Pointer	G	.70	.655	.616	.539
26F157	70-4-2G	Pointer	G	.76	.723	.680	.595
26F158	70-5-2*	Skirted Pointer	H	.79	.748	.704	.616
26F159	70-5-2G	Skirted Pointer	H	.85	.792	.744	.651

90 Series—.928" Dia. For ¼" shafts

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499	500-999
26F160	90-1-2*	Round	D	.74	.706	.664	.581
26F161	90-1-2G	Round	D	.80	.757	.712	.623
26F162	90-2-2*	Skirted Round	E	.83	.782	.736	.644
26F163	90-2-2G	Skirted Round	E	.89	.834	.785	.686
26F164	90-3-2*	Dial Skirted Rnd	F	.92	.867	.816	.714
26F165	90-3-2G	Dial Skirted Rnd	F	.98	.92	.86	.74
26F166	90-4-2*	Pointer	G	.79	.748	.704	.616
26F167	90-4-2G	Pointer	G	.85	.792	.745	.652
26F168	90-5-2*	Skirted Pointer	H	.88	.833	.784	.686
26F169	90-5-2G	Skirted Pointer	H	.94	.892	.839	.734

125 Series—1.269" Dia. For ¼" shafts

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499	500-999
26F170	125-1-2*	Round	D	.79	.748	.704	.616
26F171	125-1-2G	Round	D	.85	.800	.753	.659
26F172	125-2-2*	Skirted Round	E	.88	.833	.784	.686
26F173	125-2-2G	Skirted Round	E	.94	.892	.839	.733
26F174	125-3-2*	Dial Skirted Rnd	F	.96	.894	.841	.736
26F175	125-3-2G	Dial Skirted Rnd	F	1.02	.968	.911	.797
26F176	125-6-2*	Crank	I	2.02	1.919	1.806	1.580
26F177	125-6-2G	Crank	I	2.08	1.938	1.824	1.596

175 Series—1.772" Dia. For ¼" shafts

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499	500-999
26F178	175-1-2*	Round	D	.92	.867	.816	.714
26F181	175-2-2G	Skirted Round	E	1.07	1.019	.959	.839
26F182	175-3-2*	Dial Skirted Rnd	F	1.14	1.071	1.008	.882
26F183	175-3-2G	Dial Skirted Rnd	F	1.20	1.131	1.064	.931
26F184	175-6-2*	Crank	I	2.20	2.02	1.88	1.50
26F185	175-6-2G	Crank	I	2.26	2.08	1.93	1.55

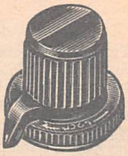
225 Series—2.272" Dia. For ¼" shafts

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499	500-999
26F186	225-1-2*	Round	D	1.05	.97	.90	.73
26F187	225-1-2G	Round	D	1.11	1.02	.94	.75
26F190	225-3-2*	Dial Skirted Rnd	F	1.27	1.17	1.08	.86
26F191	225-3-2G	Dial Skirted Rnd	F	1.33	1.22	1.14	.91
26F192	225-6-2*	Crank	I	2.28	2.10	1.95	1.57
26F193	225-6-2G	Crank	I	2.34	2.19	2.01	1.63

231 Series—2.516" Dia. For ¼" shafts

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499	500-999
26F338	125-7-2G	Matte Bar Knob	....	1.21	1.122	1.056	.924

RAYTHEON
SPECIAL POINTER KNOB



For use with the knob lock listed below, this knob features a pointer arm which curves over the skirt of the knob lock toward the chassis to increase accuracy in reading. For ¼" shafts. Shpg. wt., 2 oz.

Stk. No.	Type	Series	Finish	1-99	100-199	200-499	500-999
26F302	70-1LK-2	70	mirror	.93	.91	.85	.73
26F303	70-1LK-2G	70	matte	.99	.93	.87	.75
26F304	90-1LK-2	90	mirror	.99	.93	.87	.75
26F305	90-1LK-2G	90	matte	1.05	.971	.914	.800
26F307	125-1LK-2G	125	matte	1.11	1.023	.963	.843

KNOB LOCKS

The knob lock is for standard control knobs, and provides a dependable means of holding precise or critical control settings under conditions of shock or vibration., Available for use with the 70, 90, and 125 round standard control knobs. Mirror finish except * Matte. ⅜-32 thread. Shpg. wt., 2 oz.

Stk. No.	Type	Series	Dia.	1-99	100-199	200-499	500-999
26F308	KL701	70	1"	.77	.724	.681	.596
26F309	KL701G*	70	1"	.83	.782	.736	.644
26F310	KL901	90	1 5/16"	.88	.833	.784	.686
26F311	KL901G*	90	1 5/16"	.94	.892	.839	.734
26F312	KL1251	125	1⅝"	.93	.868	.816	.714
26F313	KL1251G*	125	1⅝"	.99	.93	.85	.73

SHAFT LOCKS

Mounted on the control bushing in place of the nut and washer, the shaft lock fits snugly around the control shaft, providing a constant drag which resists rotation caused by accidental contact, vibrations, etc., but which permits smooth adjustment. Shpg. wt., 1 oz.

Stk. No.	Type	Shaft	Thread NEF2	1-99	100-199	200-499	500-999
26F314	SL-100B	¼"	⅜-32	.28	.238	.224	.203
26F315	SL-105B	⅛"	¼-32	.22	.187	.176	.159

PANEL BRACKETS

Formed from .090" cold-rolled carbon steel, the bracket is available in four sizes to accommodate panels ranging in width from 1⅜-3 7/16". A pair of brackets will mount either one or two panels. Meet the requirements of MIL-E-16400A (ships), MIL-E-5400, and MIL-P-11268B (Sig. C). Cadium plated. Shpg. wt., 3 oz.

Stk. No.	Type	Wide Range	1-99	100-199	200-499	500-999
26F316	MB-125	1⅜-1 15/16	.20	.170	.160	.150
26F317	MB-126	2-2 7/16	.21	.179	.168	.157
26F318	MB-127	2½-2 15/16	.22	.187	.176	.165
26F319	MB-128	3-3 7/16	.23	.196	.184	.172

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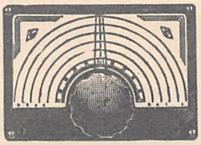
KNOBS, DIALS AND COMPONENTS

NATIONAL COMPANY

DIAL KNOBS

N

Type N. Precision 2" engine divided scale 5 to 1 ratio planetary drive. Fits 1/4" shaft. Has decimal vernier. Wt., 12 oz.
26F053. N2 0-100. 180°CC.
26F054. N3 100-0. 180°C.
26F055. N4 150-0. 270°C.
26F056. N5 200-0. 360°C.
NET EACH **7.50**



Type ACN. Original National vernier dial. With 5 removable scales. Has holes in pointer to make calibration marks. 5 to 1 ratio. Fits 1/4" shaft. Size, 5x 7 1/4". Shpg. wt., 1 1/4 lbs.
26F050. NET **7.80**

Type MCN. Smaller version of SCN. Has three scales and a 0-100 logging scale. Fits 1/4" shaft. Mounts on 3 1/2" rack panel. 2 3/4x3 7/8". Wt., 10 oz.
26F052. NET **7.20**

COIL FORMS

XR-51

XR-60

XR-70

Mica-filled bakelite coil forms can be wound as desired to provide a permeability tuned coil. Form winding length, 1/16", dia., 1/2". Brass slug, 1/2" long, 3/8" dia. Shpg. wt., 5 oz.
40F478. XR-51. **NET** **1.35**

High-grade ceramic coil forms conform to JAN specifications. Can be wound as desired to provide a permeability-tuned coil. Extra lugs provided. Slug, 1 13/16" long, 3/4" dia. Shpg. wt., 4 oz.

40F479. XR-60. Grooved for No. 26 wire with iron slug. **NET** 3.98

40F485. XR-72. Not grooved, winding length 1" with iron slug. **NET** 3.98

40F486. XR-73. As above with brass slug. **NET** 3.98

GRID CAPS FOR TRANSMITTING & RECEIVING TUBES

SPP types (fig. A) have ceramic insulation. All others (fig. B) released by slight pressure. Wt., 3 oz.

No.	Type	Description	NET
28F960	SPP-9	9/16 dia. for 866	24c
28F961	SPP-3	3/8" dia. for 807	24c
28F962	8	1/4" dia. for octals	4c
28F963	24	3/8" dia. for regulars	4c
28F964	12	9/16" dia. for 866	7c

Write for quantity prices up to 5000 on **28F960** and **28F961**, up to 10,000 on **28F962**, **963** and **964**.

Type O. 3 1/2" nickel-plated brass dial. Reads 0-100 over 180°CC. Large fluted finger-grip knob. Fits 1/4" shaft. 8 oz.
26F074. NET **2.85**

Type AM. 3" "Velvet Vernier" metal dial. Fixed drive ratio. Fits 1/4" shaft. Wt., 8 oz.

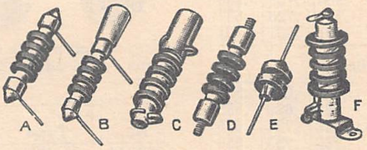
26F075. AM-2 0-100. 180°CC 4.89
26F076. AM-3 100-0. 180°C 4.89
26F077. AM-4 150-0. 270°C 4.89
26F078. AM-5 200-0. 360°C 4.89
26F079. AM-6 0-150. 270°CC
NET EACH **4.89**

Type HRP. Bar knob less pointer. Size, 1 1/4x1/2". Wt., 2 oz.
26F080. NET **29c**

Type HRP-P. Bar knob with pointer. Used on type R dial. Size, 1 1/4x1/2. 2 oz.
26F081. NET **35c**

Type R Dial. Black bakelite bar knob. Marked 0-10 over 180° clockwise. 1 5/8" dia. For 1/4" shaft. 3 oz.
26F084. NET **69c**

RF CHOKES



For use in transmitters, receivers, VFO's, etc. Wound on ceramic forms. *With small standoff insulators for vertical mounting. ‡Microhenries. Av. wt., 2 oz.

No.	Type	Fig.	mh	Ma	NET
40F322	R-50	E	2.5	125	.42
40F300	R-100	A	2.5	115	.54
40F301	R-100	A	5	70	.54
40F302	R-100	A	10	60	.54
40F303	R-300	A	1	400	.57
40F304*	R-100U	B	2.5	115	.66
40F305*	R-100U	B	5	70	.66
40F306*	R-100U	B	10	60	.66
40F307*	R-300U	B	1	400	.69
40F308*	R-100S	C	2.5	115	.92
40F309*	R-100S	C	5	70	.92
40F310*	R-100S	C	10	60	.92
40F311*	R-300S	C	1	400	.95
40F312	R-100ST	D	2.5	115	.60
40F314	R-100ST	D	10	60	.60
40F315	R-300ST	D	2.5	375	.63
40F323	R-33	E	11‡	350	.36
40F317	R-33	E	50‡	225	.36
40F318	R-33	E	100‡	200	.36
40F319*	R-154	F	1	600	2.31
40F320*	R-154U	F	1	600	2.01
40F321*	R-175A	F	145‡	800	3.56

BIRNBACH COUPLINGS AND EXTENSIONS

Couplings are for extending shafts, condensers, etc., or for ganging. Extenders decrease or increase shaft diameter. 2 oz.
10 for 1.40. 100 for **13.50**
EACH NET **15c**

Brass	Ins.	No.	Kind	Size
26F250	26F260	A	Coup.	1/4 to 1/4"
26F251	26F261	A	Coup.	3/8 to 3/8"
26F252	26F262	A	Coup.	1/4 to 3/8"
26F253	26F263	B	Ext.	1/4 to 1/4"
26F254	26F264	B	Ext.	3/8 to 1/4"
26F255	26F265	B	Ext.	1/4 to 3/8"

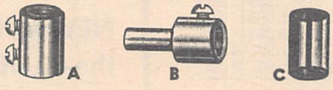


Fig. C. Split Bushing. Reduces diameter of hole from 3/8" to 1/4". Shipping wt., 2 oz.
26F256. NET EACH **15c**
10 for **1.40**
100 for **13.50**

TYPE HRT KNOBS

Plastic knob with chrome trim. Fits 1/4" shaft. Set screw type. Diameter, 2 1/8". Wt., 4 oz.
26F057. Black.
26F058. Gray. **NET EA. 86c**

Type HRT-M. Chrome inlay. 1 1/2" dia.
26F059. Black. **NET**
26F060. Gray. **EACH** **58c**

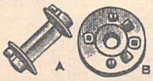
TYPE HRS KNOBS

Plastic knobs with 1 7/16" diam. chrome flanges. Set screw types No. 3 marked "0-10" through 300° clockwise. No. 4 marked with single etched line, for use as center line index. No. 5 marked "O-10" through 180°C. Wt., 4 oz.

26F065 HRS-3 Black. **26F066** HRS-3 Gray.
26F087 HRS-4 Black. **26F088** HRS-4 Gray.
26F089 HRS-5 Black. **26F090** HRS-5 Gray.
NET EACH **58c**

Type HR Knobs. As above, less flange. Dial has white dot.
26F067. Black. **NET**
26F068. Gray. **EACH** **35c**

NATIONAL SHAFT COUPLINGS



Designed for shafts 1/4" in diameter. Made of *Steatite or †Bakelite. Av. shpg. wt., 1 oz.

No.	Type	Fig.	Description	NET
26F221	TX-2*	A	2 1/2" Flexible	86c
26F222	TX-8*	B	1" Rigid	69c
26F223	TX-9*	B	1 5/8" Flexible	86c
26F224	TX-10†	B	1 1/16" Flexible	46c

NEWARK'S Field Personnel and Sales Force are the industry's most experienced. They know Electronics Equipment and are aware of your problems. Whatever your needs — whatever your location — call on a NEWARK representative — he's at your disposal at all times!

HARRY DAVIES KNOBS — INSTRUMENT CASES

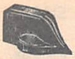


Fig. A

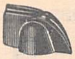


Fig. B

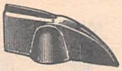


Fig. C

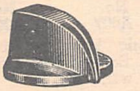


Fig. D

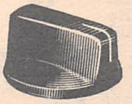


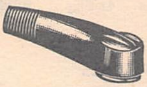
Fig. E

POINTER KNOBS

Black bakelite knobs for volume and tone controls, test instruments, etc. A through E have white indicator lines. Fit 1/4" shaft. All parts available to JAN specifications at 10% extra. *Brass insert. †2 oz. ‡1 oz.

Stock No.	Type	Fig.	Size In.	1-24	25-99	100-up
26F107	2150	A†	1 1/4	.11	.09	.08
26F100	2300	B†	1 1/4	.08	.07	.063
26F101	2300A*	B†	1 1/4	.13	.11	.099
26F103	2350	C†	2	.17	.15	.124
26F102	2350A*	C†	2	.21	.18	.156
26F115	1550	D‡	1 1/8	.10	.08	.072
26F116	1550C*	D‡	1 1/8	.15	.13	.111
26F117	1500	E‡	1 1/8	.11	.10	.084

LEVER KNOBS



Black bakelite lever knobs for any lever application. Available with metal pointer. (Write for details.) Fit 1/4" shaft. Furnished with set screw. *Brass insert. Available to JAN specifications at 10% extra. Wt., 2 oz.

Stock No.	Type	Size	1-24	25-99	100-up
26F111	2100*	2 1/2"	.18	.16	.138
26F112	2100E	2 1/2"	.14	.12	.102
26F113	2110*	1 5/8"	.17	.15	.13
26F114	2110E	1 5/8"	.12	.11	.09

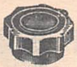


Fig. F

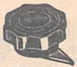


Fig. G

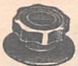


Fig. H

INSTRUMENT KNOBS

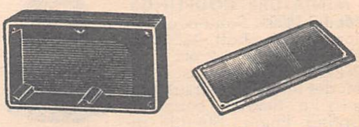
Black bakelite finger grip knobs for use on 1/4" shafts. Complete with brass insert and set screw. Available to JAN spec. at 10% extra, as well as in compliance with MS-91531. Can be furnished with imprinted skirt. Write for prices. Wt., 3 oz.

Stk. No.	Type	Fig.	Knob Size	1-99	100-up
26F013	4103	F	2 3/8"	.32	.256
26F014	4102	F	1 5/8"	.24	.192
26F015	4101	F	1 3/8"	.20	.16
26F016	4100	F	1 1/8"	.18	144
26F017	4103W-PTR	G	2 3/8"	.47	.376
26F018	4102Q-PTR	G	1 5/8"	.37	.296
26F019	4101J-PTR	G	1 3/8"	.35	.28
26F020	4100Q-PTR	G	1 1/8"	.27	.216

KNOBS WITH SKIRTS

Stk. No.	Type	Fig.	Skirt Dia.	1-99	100-up
26F021	4109	H	3"	.47	.376
26F022	4108	H	2 1/16"	.34	.272
26F023	4107	H	1 3/4"	.31	.248
26F024	4104	H	1 1/2"	.32	.254

INSTRUMENT CASES AND COVERS



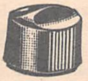
Inexpensive cases for meters, components, instruments, etc. Made of molded plastic, they can be drilled out to take any type of instrument. Plain molded holes. Covers available for all cases.
Type 260: 6 13/16x5 9/32x2 5/32" deep. Shpg. Wt.: 1 lb.
Type 240: 3 3/4x6 1/4x1 7/8". Shpg. Wt.: 1 lb.

Stk. No.	Type	Description	1-99	100 up
26F124	260	4-.089x1/2	.90	.76
26F125	240	4-.113x9/16	.66	.57

Panels or Covers for above

Stk. No.	Description	1-9	100-up
25F667	Panel for 240	.55	.47
25F668	Panel for 260	.73	.62
25F669	Cover for 240	.47	.38
25F670	Cover for 260	.60	.51

CONTROL KNOBS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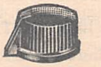
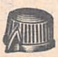

1470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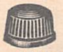
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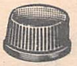
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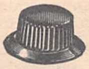
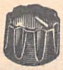
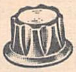

1600, 1610

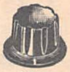
Black bakelite knobs for all control and indicating uses. Nos. 1470 and 1400 have molded pointers. Nos. 1600 and 1610 have paint filled indicator lines on skirt. For 1/4" shaft. Set screw furnished. *Brass insert. Shipping weight, 1 ounce. †Ivory. ‡Walnut.

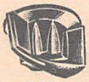
Stock No.	Type	Bottom Diameter	Hole Depth	1-24	25-99	100-up
26F106†	1700	3/4"	15/32"	.11	.09	.08
26F105‡	1700	3/4"	15/32"	.10	.87	.074
26F110	1470	1"	7/16"	.13	.11	.099
26F109	1475	1"	7/16"	.11	.09	.08
26F123	1450	1 1/16"	11/32"	.07	.06	.054
26F122	1400	1 1/16"	11/32"	.07	.06	.054
26F118	1600	1 1/2"	9/16"	.13	.12	.10
26F119	1600A*	1 1/2"	9/16"	.18	.16	.136
26F120	1610	1 5/16"	7/16"	.11	.09	.08
26F121	1610A*	1 5/16"	7/16"	.17	.15	.126

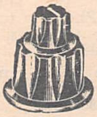
FINGER GRIP KNOBS

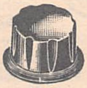

1914

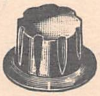

1925


1910
1913


1919


1915
1935

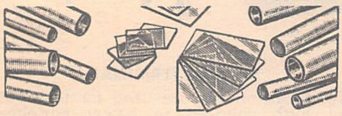

1920


1930
1940

Black Bakelite Fluted Knobs for use on 1/4" shafts. Set Screw Mounting. *Brass insert. Some available with SPRING MOUNT AND CRL KNURL—(Write for prices). †Dual control for concentric shafts with 1/8" hole top knob. Can be furnished in compliance with government specifications M-14E. Shpg. wt., 1 oz.

Stk. No.	Type	Knob Size Dia.	Height	Hole Size	1-24	25-99	100-up
26F126	1910	3/4"	1/2"	1/4"	.12	.11	.09
26F127	*1910-C	3/4"	1/2"	1/4"	.16	.15	.12
26F133	1913	1 1/8"	5/8"	1/4"	.13	.11	.09
26F134	*1913-C	1 1/8"	5/8"	1/4"	.16	.14	.12
26F139	1914	3/4"	1/2"	1/4"	.25	.23	.21
26F140	*1914-C	3/4"	1/2"	1/4"	.31	.29	.27
26F128	†1915	1 1/4"	1 3/16"	1/4"	.24	.22	.18
26F135	1919	1 1/4"	5/8"	1/4"	.19	.17	.15
26F136	*1919-C	1 1/4"	5/8"	1/4"	.22	.20	.18
26F129	1920	1 1/4"	3/4"	1/4"	.12	.11	.09
26F130	*1920-C	1 1/4"	3/4"	1/4"	.16	.14	.12
26F141	1925	1 1/4"	3/4"	1/4"	.18	.17	.15
26F142	*1925-C	1 1/4"	3/4"	1/4"	.24	.22	.18
26F131	1930	1 1/2"	7/8"	1/4"	.13	.11	.09
26F132	*1930-C	1 1/2"	7/8"	1/4"	.17	.15	.13
26F143	1935	1 1/2"	1 5/16"	1/4"	.59	.53	.48
26F144	*1935-C	1 1/2"	1 5/16"	1/4"	.66	.60	.54
26F137	1940	2"	1 5/16"	1/4"	.29	.27	.25
26F138	*1940-C	2"	1 5/16"	1/4"	.34	.32	.30

POLYSTYRENE RODS, TUBES AND SHEETS



Used for electronic application at ultra high frequencies because of its very low loss factor. Ideal for insulators, coil forms, shields, etc. Has excellent arc resistance, is non-tracking, has splendid insulating properties. Water absorption is practically zero.

ROD IN 12" LENGTHS

Stk. No.	Dia.	NET	No.	Dia.	NET
37F300	1/8"	.03	37F301	3/16"	.06
37F302	1/4"	.09	37F303	5/16"	.14
37F304	3/8"	.18	37F305	1/2"	.36
37F306	5/8"	.60	37F307	3/4"	.81
37F308	7/8"	1.20	37F309	1"	1.70

TUBING IN 12" LENGTHS

Stk. No.	O.D.	I.D.	EACH
37F310	1/4"	1/8"	.09
37F312	3/8"	1/4"	.15
37F313	1/2"	3/8"	.21
37F314	5/8"	1/2"	.24
37F315	3/4"	5/8"	.30
37F316	1"	7/8"	.42

CLEAR POLYSTYRENE SHEETS

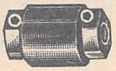
Stock No.	Overall Size	Thickness	NET EACH
37F317	12x12"	1/16"	3.08
37F319	12x12"	1/8"	4.11
37F320	12x12"	3/16"	5.32
37F321	12x12"	1/4"	6.07

POLYSTYRENE SHEETS UP TO 20x20" AND 1"THICKNESS AVAILABLE ON SPECIAL ORDER. ROD AND TUBING AVAILABLE IN 48" LENGTHS.

MILLEN KNOBS, DIALS AND TERMINALS

MINIATURE COUPLINGS

Model M003. Solid coupling for ⅛" dia. shaft, ⅜" long. N.P. brass. Wt., 2 oz.
26F272. NET 33c



Model M006. Universal joint style flexible coupling. Spring finger. Steatite insulation. ⅛" dia. shaft hole. Nickel plated brass. Wt., 2 oz.
26F273. NET 75c

Model M001. Insulated universal joint style flexible coupling for ⅛" dia., 1 1/16" long shafts. Wt., 2 oz.
26F285. NET 63c

Model M005. Universal joint flex. coupling for ⅛" dia. shafts, 1 1/16" long, uninsulated. Ext. hub for max. flexibility. Wt., 2 oz.
26F286. NET 63a

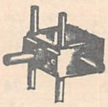
Model M004. Universal joint flex. coupling for ⅛" dia. shafts, uninsulated. Inverted hubs for short length. Wt., 2 oz.
26F287. NET 63c

Model M008. Illustrated above. Insulated coupling, with N.P. brass inserts for ⅛" dia. shafts, 19/32" long. 6000 v. Wt., 2 oz.
26F274. NET 51c

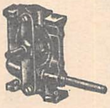
MILLEN AO 12 RIGHT ANGLE DRIVE

Designed for use in Millen equipment. Right angle drive. ⅛" diam. shafts. Single hole mounting bushing ¼"-32 diam. Wt., 6 oz.
26F213. NET............**3.90**

MILLEN RIGHT ANGLE DRIVES



Type 10012. Compact bevel gear drive with 1:1 ratio. Mounts by threaded bushing; tapped holes in frame or "stand off" rods. Size, 1½x¾". Wt., 4 oz.
26F210. NET.............. **5.00**



Type 10000. Right angle worm drive assembly. May be panel or base mounted. Standard ratio, 16:1. Spring loaded split gears eliminate backlash. Cast aluminum frame. 4 oz.
26F211. NET.............. **9.75**
26F212. As above, with 48:1 ratio..........**9.75**

BAR KNOB DIAL

Type 10007. 1⅝" dial with rectangular bar knob calibrated 10 to 0. 180° clockwise. ¼" shaft. 7 oz.
26F044. NET..................**75c**
26F039. As above but 280° rotation. **NET** 75c

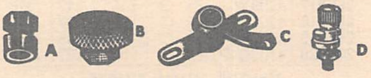
Type A014. 1" dial calibrated from 0 to 10. 180° clockwise rotation. ⅛" shaft. 3 oz.
26F270. NET 72c
26F271. Same as above but 280° rotation. **NET** 72c

FLEXIBLE COUPLINGS

Type 39001 is for angle drives up to 45°. Type 39006 is a slide action coupling for eccentric shafts. Wt., 2 oz.

Stk. No.	Type	Fig.	Insulation	NET
26F200	39001	A	Isolanite	48c
26F201	39002	B	Ceramic	
26F202	39005	A	All metal	
26F203	39006	B	Steatite	

Type 39003. Solid coupling with ¼" shaft ¾" long. Includes two ⅜" head screws made of hardened steel. Coupling is solid brass and is nickel plated. 2 oz.
26F275. NET 24c



SHAFT AND DIAL LOCKS

#10061 is combination mtg. nut and shaft lock; #10062 is similar, but with knurled control knob; and #10063 is chuck type lock w/lever control. ¼" shaft. 2 oz.
26F045. (A) Type 10061. **NET**............ **45c**
26F046. (B) Type 10062. **NET**....................**54c**
26F047. (C) Type 10063. **NET**....................**62c**

Fig. D. Dial Lock. Has captive head for front of panel mounting. 2 oz.
26F048. Type 10050. **NET**.................... **54c**

Type A050. Miniature Dial Lock. Same as above, but for specialized miniaturized applications. Wt., 2 oz.
26F288. NET 54c

SHAFT LOCKS

Type A061. Clearance for ⅛" D. shaft. Total length is ½". 2 oz.
26F276. NET 39c

Type A062. Same as above except has knurled face.
26F277. NET 48c

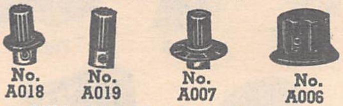
Type M017. Flexible Coupling. Plastic insulated and miniaturized. Fits ⅛" diameter shafts. 17/32"L. x 15/16"D. Bronze yoke. Wt., 2 oz.
26F289. NET 63c

26F204. 32150. Isolantite thru bushing. ¼" hole. Shpg. wt., 3 oz. **Net Box of 5**.......35c

Molded Coupling. Small size, high flexibility. 4000 volt insul. High torque. 13/16" dia., 17/32" thick. For ¼" shafts. Wt., 2 oz.
26F206. 39016. **NET**....................48c

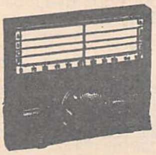
Type 39017. Same as above except 15/16" dia. for 3/16" shaft.
26F278. NET 63c

MINIATURE KNOBS FOR ⅛" SHAFT



No. A018. Blk. plastic knob w. brass insert. Skt. diam. ⅜". Screwdriver slot on top. ⅝"Hx¼"D. Avg. wt., 1 oz.
26F281. NET 39c
No. A019. Above without flange.
26F282. NET 36c
No. A007. A018 w. ⅝" diam. indexed dial.
26F283. NET....................42c
No. A006. Like std. knobs. ½"Hx¾"D.
26F284. NET 48c

LIGHTED DIAL



Type 10035. Slide rule panel dial w. 2 pilot lights. 12:1 drive ratio knob. 4 blank, 1 0-100 log scale reads left to rt. 8½x6½" 2½ lbs.
26F040. NET..............7.26

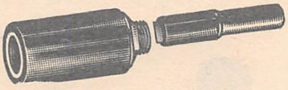
MIDGET DIAL

Type 10039. Midget panel dial. 8:1 ratio. Self-contained mech. cuts interference. 0-100 log reads left to right. 5 blank scales. 4x3 9/32". Wt., 1¼ lbs.
26F041. NET..............3.24

KNOB DIALS

Nickel silver dials with fingergrip knobs. Bakelite hub insulates metal scale from shaft. Calibrated 0 - 100 clockwise 180°. ¼" shaft. Wt., 7 oz.
26F042. Type 10008, 3½" dia. **NET**........2.40
26F043. Type 10009, 2¾" dia. **NET**........1.65
Type A015. 1" calibrated dial from 0 to 10. ⅛" shaft. 180° clockwise rotation. 2 oz. Uses Millen A006 knob.
26F268. NET....................72c
26F269. Same as above except 280° rotation. **NET** 72c

INSULATED SHAFT EXTENSION



Type 39023. Safety insulated shaft extension. ¼" shaft. Nickel-plated. ⅜-32 thr. Phenolic tubing. 5500 V. Length, 2". Shpg. wt., 2 oz.
26F205. NET.................... **1.35**
Type 39024. Same as above but includes shaft lock. Wt., 2½ oz.
26F280. NET 1.65

HV TERMINALS

Fig. A. Type 37001. Mount with insulated bushing extending thru chassis. Bakelite. Tapered plug and socket. Pin is swivel mounted in cap to prevent twisting of lead wire. 2 oz.

Stk. No.	Color	EACH
28F638	Red	.48
28F639	Black	.45

BINDING POSTS

Fig. B. Type 37222. Non-turning types with captive head. Banana jack tops. Mount on single or dual plates. Wt., 5 oz. Brass. Non-insulated.

Stk. No.	EACH
28F640	.30

SINGLE DISC

Fig. C. Type 37201. Bakelite. This single plate is used with binding post type 37222. 2 oz.

Stk. No.	Descrip.	EACH
28F641	Black	.24
28F657	Mica filled	.24

DOUBLE DISC BINDING POSTS

Fig. D. Type 37202. Dual plates. Bakelite. Have captive heads and keyed mountings. Meets most requirements. 5 oz.

Stk. No.	Color	EACH
28F642	Black	.36
28F658	Red	.36

DOUBLE BANANA PLUG

Fig. E. Type 37212. Bakelite. Fits 37222 posts on dual plates. Wt., 3 oz.

Stk. No.	Color	EACH
28F643	Black	.78
28F636	Red	.78

PHENOLIC BINDING POST

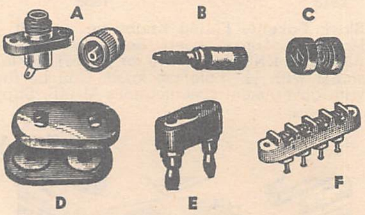
The posts have captive heads and keyed mounting. Insulated. Type 37223. 6 oz.

Stk. No.	Color	EACH
28F587	Red or Black	.30

BINDING POST PLATES

Type 37291. For 37222, 37223. Phenolic. For ½" dia. or keyed hole.

Stk. No.	Color	Bx. of 2 prs.
28F588	Black	.18
28F659	Red	.18



BARRIER TERMINAL

Fig. F. Terminals are used for terminating high voltages in power supplies, receivers, and transmitters. Has 6/32 B.H. screws; rated 3500 V. Shpg. wt., 3 oz.

Stock No.	Type	Term	Mtg.	EA.
28F645	37302	2	1½"	.75
28F646	37303	3	2"	.84
28F647	37304	4	2½"	.96
28F648	37305	5	3"	1.14
28F649	37306	6	3½"	1.23

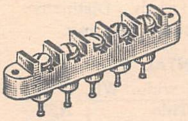
MILLEN COIL FORMS, COILS, AND CHOKES

MILLEN MINIATURIZED COMPONENTS

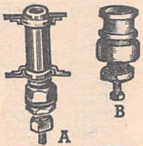
MINIATURE TERMINAL STRIPS

These miniature steatite ceramic terminal strips are only 5/16″ wide. Terminals are spaced ⅜″ on centers. Have rating of 1400 volts DC. One piece brass turret soldering lugs with bright alloy finish. #4-40 binding head screws. Shpg. wt. 1 oz.

Stk. No.	Type	Term.	Mtg. Ctrs.	NET
28F941	E302A	2	1⅛″	.75
28F942	E303A	3	1½″	.89
28F943	E304A	4	1⅞″	.96
28F944	E305A	5	2¼″	1.14


Type E305

MILLEN FORMS FOR RF COILS

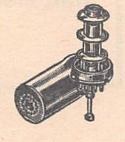


Type A: Ceramic permeability tuned unshielded forms perfect for any application. Supplied with all mounting hardware.

Type B: Compact forms for UHF coils. Feature high "Q" at minimum capacity. *Have copper slugs; †have powdered iron cores. Wt., 4 ounces.

No.	Type	Winding Length	Freq. Mc.	NET
40F439	69044*	3/16	....	.84
40F440	69051*	⅜	14-300	.87
40F441	69052†	⅜	10-30	.87
40F442	69057*	⅝	14-300	.87
40F443	69058†	⅝	.10-30	.87
40F444	69061*	¾	14-300	.90
40F445	69062†	¾	10-30	.90
40F725	69041*	5/16	14-320	.96
40F722	69042†	5/16	.18-35	.96
40F727	69045*	1¾	.1-30	1.05
40F728	69046†	1¾	.1-30	1.05
40F723	69047*	⅜	35-100	1.05
40F724	69048†	⅜	35-100	1.05
40F726	69043†	⅜	.,12-25	.84

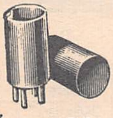
PERMEABILITY SHIELDED FORMS



Permeability tuned, shielded form, plugs into octal socket. Low-loss octal base. Polystyrene ½″ dia. coil form with iron tuning slug for frequencies up to 35 mc. Adjusting screw extends through socket hole. Heavy aluminum shield.

40F729. Type 74001. **NET**..... ....**2.31**
40F730. Type 74002 less slug. **NET**..........**1.89**

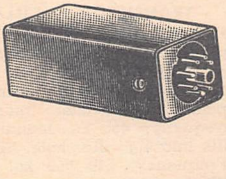
MIDGET COIL FORMS



Low loss mica filled brown bakelite forms. For shortwave receivers and low-power transmitters. Size: 1″ dia., 1 13/32″ winding length; 2 3/16″ overall. Shpg. wt., 2 oz.

40F732. Type 45004. 4 prongs. **NET.. 51c**
40F731. Type 45000. Without prongs......**39c**
40F733. Type 45005. Five prongs. **NET..51c**

OCTAL BASE AND SHIELD



Model 74400. Low loss phenolic base with octal socket plug and aluminum shield can. 1 7/16 x 1⅞ x 3 15/16″.
40F734.
NET...... 1.40

Order All Millen Electronic and Amateur Equipment from Newark.

BINDING POSTS AND INSULATORS

Type E202 black plastic double binding post insulator is only 13/32″ wide. Mounts in 5/16″ dia. holes, ½″ between centers. For use with Type E222 binding post. Shpg. wt. 2 oz.

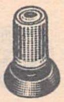
28F938. Black or Red. **NET EA.**............**39c**

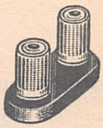
Type E201 binding post insulators are the same as above except—single insulator. Shpg. wt. 2 oz.

28F939. Black. **NET**......................................**24c**
28F937. Red. **NET**...**24c**

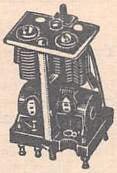
Type E222 miniature binding post for use with above. Has jack top for miniature banana plug. Max. height: 1 9/64″. Shpg. wt. 2 oz.

28F940. Single Post. **NET EACH**...........**30c**





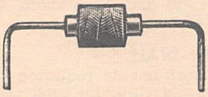
MINIATURE IF TRANSFORMERS



Extremely high Q—approximately 200-variable coupling—(under, critical, and over) with all adjustments on top. Small size: 1 1/16x 1 9/16x1⅞″. Molded terminal base. Air capacitor tuned. Coils completely enclosed in cup cores. Tapped primary and secondary. Rugged construction. High electrical stability. Shpg. wt. 4 oz.

No.	Model	Application	NET
40F416	61455	455 kc. Universal	7.50
40F417	61453	455 kc. BFO	
40F418	61160	1600 kc. Universal	
40F419	61163	1600 kc. BFO	

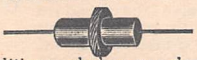
MINIATURE POWDERED IRON CHOKES



Powdered iron core chokes are ¼″ long. Have current capacity of 100 ma. Hi-Q. Designed for application in radio components. Excellent for use where miniaturization is paramount. Shipping weight 1 oz.

No.	Type	UH	NET
40F386	J300-25	25	42c
40F387	J300-50	50	
40F388	J300-100	100	
40F389	J300-250	250	
40F390	J300-500	500	
40F391	J300-1000	1000	
40F392	J300-2500	2500	

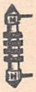
SMALL RF PIE WOUND CHOKES



Expertly made and designed to operate under extremely trying conditions; chokes are dependable and have a long life. 250 ma current. Lead lengths 1½″. Sh. wt., 1 oz.

No.	Type	UH	Ohms	NET
40F393	34300-25	25	3.1	42c
40F394	34300-50	50	5.2	
40F395	34300-100	100	7.1	
40F396	34300-250	250	12.1	
40F397	34300-500	500	22.3	
40F398	34300-750	750	30.4	
40F399	34300-1000	1000	21.7	

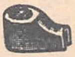
MILLEN RF CHOKES



Pie-wound on steatite forms. *Supplied with standoff insulator; †have solid ends, ‡have 6-32 threaded ends. **One threaded end. Shipping weight 2 oz.

No.	Type	Mh.	Ma	NET
40F400	34100*	2.5	250	48c
40F401	34101**	2.5	250	42c
40F402	34103†	2.5	250	42c
40F403	34104‡	2.5	250	48c
40F404	34105*	1.0	300	48c
40F405	34106**	1.0	300	42c
40F406	34108†	1.0	300	42c

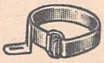
MILLEN PLATE CAPS



All are ceramic except types 36011 and 36012 which are bakelite with press-to-release snap button. Shipping weight, 2 ounces.

28F950. 36001. 9/16″ dia. for 866's..........**24c**
28F951. 36002, ⅜″ dia. for 807...............**24c**
28F952. 36004. ¼″ dia...............................**24c**
28F953. 36011. 9/16″ dia. snap lock...........**75c**
28F959. 36012. ⅜″ dia. snap lock..........**75c**

MILLEN TUBE CLAMPS

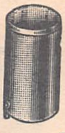


For holding down metal tubes to chassis. Fastens to socket mtg. plate. Wt., 2 oz.

28F955. 33087A. For 1.125″ Base.
28F956. 33087B. For 1.165″ Base.
28F957. 33087C. For 1.250″ Base.
28F958. 33087D. For 1.275″ Base.
28F954. 33087E. For 1.375″ Base.
28F965. 33087F. For 1.156″ Base.
28F966. 33087I. For 1.00″ Base.
28F967. 33087G. For 1.625″ Base.

NET EACH 36c

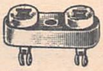
ALUMINUM SHIELD CANS



Effective RF shielding for coils and transformers can be provided by Millen Aluminum cans. Available in several sizes from stock. Square and round for every purpose. Shipping weight, 5 ounces.

28F985. Type 80003. 1⅜x1⅜x4″ sq.......**54c**
28F986. Type 80004. 1⅞x1 7/16x4½″ sq...**60c**
28F987. Type 80005. 2x2x4⅞″ sq.........**66c**
28F988. Type 80006. 2⅛ round x 4″......**51c**

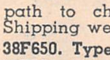
MILLEN CRYSTAL SOCKETS



Sockets for crystal holders. Steatite base for low-loss. Silver-plated phosphor-bronze contacts. Tinned solder lugs extend below chassis. *For CR-7 crystals. Shpg. wt., 2 ozs.

No.	Type	Space	Pins	NET
38F655	33002	¾″	.125	36c
38F656	33102	.487″	.095	36c
38F657	33202	½″	.125	36c
38F658	33302*	.487″	.050	24c

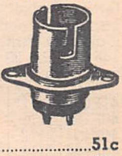
MILLEN STEATITE SOCKETS



Designed for use in transmitters and power supplies. Have higher body providing long "flashover" path to chassis. Mounting hole ¾″. Shipping weight, 3 ounces.

38F650. Type 33004. 4 contacts. **NET**.... **.60**
38F651. Type 33005. 5 contacts. **NET**.... **.60**
38F652. Type 33006. 6 contacts. **NET**.... **.60**
38F653. Type 33008. 8 contacts. **NET**.... **.60**

JAMES MILLEN BAYONET SOCKET



Dual contact bayonet sockets for type 991 neon voltage-regulator tube. Metal construction with choice of black or low-loss mica-filled phenolic insulation. Mounting centers, 1⅛″. Av. wt., 3 oz.

25F322. 33991. Black. **NET**..........................**51c**
25F323. 33992. Mica. **NET**..........................**63c**

WALDOM PLATES

ETCHED PLATES

A

C

D

Etched aluminum plates. All dial plates are calibrated 0-10 in 300° except *0-100 in 180° and †0-100 in 270°. Type 272, 573 and 581 are circular plate, 1⅛" in diameter for toggle switches. All have 15/32" center hole, **have embossed beaded edges. 2 oz.

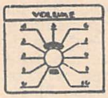
No.	Type	Fig.	Description	NET
25F700	260	A	3" dia.*	.85
25F701	261	A	3" dia.†	.85
25F702	262	A	1⅞" dia.*	.43
25F703	263	A	1⅞" dia.†	.43
25F704	264	A	2¼" dia.	.85
25F715	272	C	On-Off	.41
25F718	278	D	Switch Plate	.17
25F772	551**	A	1⅞" Dia.†	.51
25F773	905	A	1¾" Dia.†	.27

INDUSTRIAL TYPE MODERN KNOBS

Ideal for Ham equipment and experimental usage. Desirable when smooth finishes and simplicity are required. ¼" dia. hole—brass insert. Set screw.

Stk. No.	Type	Dia.	NET
25F769	6126	⅝"	.25
25F770	6129	⅞"	.39

POLISHED ALUMINUM PLATES



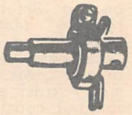
Anodized aluminum plates with polished finish. Distinctive black lettering.

HORIZONTAL

All 2 3/16" high x 2⅝" wide. Wt., 3 oz.

No.	Type	Title	NET
25F720	410	Plain 0-10	.52
25F722	412	Gain 0-10	.51
25F724	414	Record 0-10	
25F725	415	Mike 0-10	
25F729	423	Arrow-Increase	
25F732	426	Volume 0-10	
25F734	428	Bass 5-0-5	
25F735	429	Treble 5-0-5	

PLANETARY DRIVES



Type 599. Two speed. For slow speed at 5:1 ratio, high speed at 1:1. Used as a single-speed drive by omitting knob on high-speed sleeve. Shaft sizes: Inner: 7/16", outer: ¼" dia. Size, 2 1/64x1 9/16". Shpg. wt. 3 oz
25F636. NET............**7.25**

Type 6665. Concentric pair of Knobs. For two-speed planetary unit above.
25F637. NET............ .68

Type 27067. One speed. Same as 599 but without sleeve for high speed knob. ¼" dia. knob shaft and fits ¼" dia. shaft.
25F628. NET............7.40

Type 104. Gear Reduction Unit. 6:1 ratio between knob and drive shaft. ¼" shaft.
25F629. NET............6.82

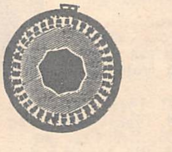
DIRECT-DRIVE DIALS

Direct drive dials for transmitting and test equip. 2¾" and 4" types have knob skirts 1⅛" have small knurled knob only instead of fluted type. 2¾" and 4" have micrometer for 1/10 of one division logging. Fit ¼" control shafts and 0-100 calibration except 302A has 0-360 calibration. 12 oz.

Stk. No.	Type	Dia.	Rot.	NET
25F639	27084	1⅛"	180°	1.07
25F640	27085	1⅛"	270°	
25F641	27086	1⅛"	325°	
25F642	27087	1⅛"	360°	
25F630	27068	1¾"	180°	1.40
25F631	27069	1¾"	270°	1.42
25F643	27080	1¾"	325°	1.40
25F644	27081	1¾"	360°	1.40
25F632	294	2¾"	180°	1.84
25F633	295	2¾"	270°	
25F645	27082	2¾"	325°	
25F646	303	2¾"	360°	
25F634	292	4"	180°	2.54
25F635	293	4"	270°	
25F647	27083	4"	325°	
25F648	302	4"	360°	
25F638	302A	4"	360°	

Make Newark your 1-point source for industrial electronic components, amateur gear, and electrical accessories.

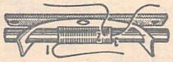
AZIMUTH DIALS

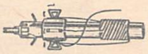


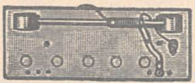
Precision test dials for use on instruments requiring a dial of extreme accuracy in calibration. Can also be used as an indicator in a direction finder. Calibrated in degrees through full 360°. Outer numerals read 0 to 360 in counter-clockwise direction; inner numerals 0 to 360 in clockwise direction. Etched on heavy aluminum with black graduations and figures on hand-spun background. Dial diameter: 6"; indicator dial: ¼".
25F691. Type 27010. For ⅜" shaft. **NET**............7.20
25F692. Type 27011. For ¼" shaft. **NET**............7.20
Type KD-12 4". Same application as above. Has single line indicator. **25F693. NET**............3.39

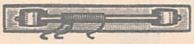
J. W. MILLER PRODUCTS

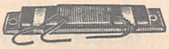
FERRITE ROD LOOP ANTENNAS


A


B


C

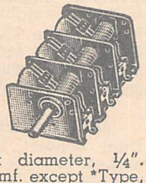

D


E

Ferrite Rod loop antennas designed to receive the standard broadcast band (540-1650Kc) when used with proper tuning capacitor. Figures C, D & E are supplied with a mounting board which can be easily removed if an alternate method of mounting is desired, others have mtg. bracket. They make excellent antenna for conventional vacuum tube and transistor receivers. Type 705-A has adjustable inductance to permit peaking antenna stage by sliding coil along ferrite rod. The 2000 series have a secondary which is over-coupled for maximum gain stability with a variation of output and are designed to match an input impedance of approximately 600 ohms. Type 6300 antenna coil replaces a loop antenna and is supplied with 18" of antenna wire. It is screw adjustable. Average Shpg wt.: 3 oz.

Stock No.	Type	Fig.	Size	Inductance	Max. Tun. Cap.	NET
40F194	705A	C	3¼x9½"	Adj.	400mmf	1.94
40F193	2000	D	¾x9"	240uh	365mmf	1.91
40F158	2001	A	¾x3¾"	240uh	365mmf	1.76
40F159	2002	B	½x2½"	40-300uh	450mmf	1.09
40F164	2003	A	¾x3¾"	700uh	130mmf	1.76
40F156	2004	E	¾x3¾"	240uh	365mmf	1.76
40F157	2005	E	¾x3¾"	700uh	130mmf	1.76
40F165	2007	B	½x2½"	150-1000uh	250mmf	1.41
40F128	6300	B	⅜x2¼"	Adj.	500mmf	.88

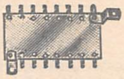
VARIABLE CAPACITORS



Split outer plates permit accurate alignment. High frequency trimmers are on short side of capacitor. Mounting by tapped holes in frame. Counterclockwise rotation—capacity increase. Shaft diameter, ¼". Capacity Range: 10-365 mmf. except *Type, 1461BS, 6.6-23, used for FM or band spread.

No.	Type	Sec.	Oz.	Size—Inches	NET
41F000	1461*	3	5	3 3/16x1 13/16x1⅝	3.53
40F190	2111	1	3	1⅛x1 11/16x1⅝	1.91
40F191	2112	2	6	2 3/16x1 13/16x1⅝	2.35
40F192	2113	3	9	3 3/16x1 13/16x1⅝	3.23
40F195	2110	2	2	1 5/16x1⅜x1 15/16	1.94

BAKELITE TERMINAL PLATES



Provides rigid mounting and means for assembling groups of resistors and capacitors. Lugs are on 1/16" thick bakelite sheet stock, terminal spacing 7/16". * indicates number lugs per side. Shipping wt., approx. ½ oz.

No.	Type	Lugs*	Size	NET
40F183	420	6	1x3"	.35
40F184	430	5	1¾x2½"	.41
40F185	440	14	1x5¾"	.50
40F186	450	8	1¾x3¾"	.59
40F187	460	11	1¾x5¼"	.71
40F188	470	19	1¾x8⅜"	.94

TRANSISTOR OSCILLATOR COIL

For use with transistor to supply local oscillator energy to mixer stage. Used with a variable capacitor having a maximum capacity of 365 mmf. Intermediate frequency 455 kc. Mounting clip fits into 5/16" dia. hole. Size: ⅜x1" high. Frequency: 540-1650 kc. Padder, .0004. Wt. 1 oz.
40F135. Type 2020. NET............**1.62**

40F166. Type 2022. As above, but used with cut section variable. **NET**............1.62
40F167. Type 2023. (6-lug). For use when separate transistors are required for oscillator and mixer. Padder needed with 365-mmf variable. **NET**............1.62

J. W. MILLER IF'S–COILS–CHOKES

STANDARD AIR CORE 455 KC IF'S

For use in single or two-stage amplifiers. Employ ceramic compression trimmers which have been stabilized by a heat-cycling process and temperature capacity drift has been minimized. Full-wave and half-wave units are overcoupled. Range, 450-475 kc. Size, 1⅜'' sq. x 2⅝''. 6-32 spade bolt mtg. Color-coded leads. 5 oz.

40F073. Type 512-C1. Input **NET EACH**
40F074. Type 512-C2. Interstage
40F075. Type 512-C3. Full-Wave **1.94**
40F076. Type 512-C4. Half-Wave

MINIATURE IF TRANSFORMERS

Shell core permeability tuned type. Assembled in molded plastic frames, with built-in silver mica condensers. Tunes from top and bottom of aluminum can. Supplied with snap ring mtg. clip and adapter plate for use over a standard tube socket hole. Dimensions, ¾'' square x 2'' high. *With diode filter condensers. Wt. 4 oz.

262 KC TRANSFORMERS

40F115. 12-H1 Input. **NET**........................1.71
40F116. 12-H2 Output. **NET**.....................1.71
40F117. 12-H6* Output. **NET**....................1.76

455 KC TRANSFORMERS

40F022. 12-C1 Input. **NET**........................1.59
40F023. 12-C2 Output. **NET**.....................1.59
40F118. 12-C6* Output. **NET**....................1.68

1500 KC IF TRANSFORMERS

40F020. Type 12W-1. Input. **NET**.............1.94
40F021. Type 12W-2. ½W. Out. **NET**......1.94

10.7 MC FM TRANSFORMERS

40F024. Type 1463. Inp. or int. **NET**......1.91
40F025. Type 1464. Discrim. **NET**..........2.20
40F026. Type 1465. Ratio det. **NET**........2.29

4.5-MC MINIATURE IF'S

Shell core permeability tuned transformers with built-in silver-mica capacitors. Tuning from top and bottom of aluminum shield. Dimensions: ¾'' square by 2'' high. Supplied with a snap spring mounting clip and adapter plate for use over standard tube socket hole. Wt., 8 oz.

40F078. Type 6203. Inp. or int. **NET 1.94**
40F079. Type 6204. Discrim. **NET 2.20**
40F080. Type 6205. Ratio Det. **EACH 2.20**

MINIATURE RF COILS

455 kc IF frequency. For use with 365 mmf tuning condenser. All coils are assembled in aluminum shields with sturdy solder terminals located in the base plate. The RF coils are impedance coupled and the antenna and oscillator coils have tapped secondaries. Size ¾'' sq. x 2'' high. Supplied with snap-spring mounting clips. Shpg. wt., 5 oz.

40F056. Type A-121-A. Antenna.
40F057. Type A-121-RF. RF stage.
40F058. Type A-121-C. Oscillator.
NET EACH.. **1.37**

UNSHIELDED RF COILS

High "Q" adjustable iron core coils for general replacement use. All 540-1600 KC. Type 70 Osc. has a primary and a tapped secondary, while Type 69 Osc. has a capacity coupled winding. These may be adjusted to track with 100-500 KC IF's. Shpg. wt. 4 oz.

40F124. Type 70-RF. RF. **NET EACH**
40F125. Type 70-OSC. Osc.
40F123. Type 70-A. Antenna. **1.12**

UNIVERSAL ADJUSTABLE OSCILLATOR COIL

Operates properly in all broadcast band receivers. Has 2 taps, allowing 6 different feed back combinations. Mtg. Clip fits 5⁄16'' hole. Wt. 4 oz.

40F127. Type 71-OSC. **NET 1.62**

SUB-MINIATURE IF TRANSFORMERS

455 KC IF transformer smaller than a miniature tube. Ideal for the smallest personal receivers. Ferrite core and shell material used makes it possible to offer gain and bandwidth characteristics previously obtained in larger IF assemblies. ½'' Sq. x 1½'' H. Wt. 3 oz.

40F027. Type 10-C1. Input.
40F028. Type 10-C2. Output.
NET EACH.. **1.65**

UNIVERSAL REPLACEMENT COILS

Permeability tuned. Adjustable for use with any variable condenser having a capacity between 250 and 450 mfd. Oscillator coil may be adjusted to track with all IF amplifiers between 250 and 450 mmfd. Size 1⅜'' sq. x 2½'' high. Wt. 5 oz.

SHIELDED

Stk. No.	Type	Use	NET
40F053	73-A	Antenna stage	2.06
40F054	73-RF	RF stage	
40F055	73-OSC	Oscillator stage	

TV ANTENNA COUPLING TRANSFORMERS

Miller
Cat. No 616
Ohms
Coupling Chan

For using 52 or 72 ohm coax cable on 300-ohm receiver inputs. Two transformers required.—one at antenna, other at receiver. Wt., 2 ozs.

92F111. Type 6162. 72 ohm.
92F110. Type 6161. 52 ohm.

NET EACH......................... **1.91**

MINIATURE I.F. TRANSFORMERS FOR PRINTED CIRCUITS

Miller
13-PC1
455 KC I.F.
Printed Circuit

Assembled in molded plastic frames, with built-in silver mica condensers. Tunes from top and bottom of aluminum can. ¾'' sq. x 2'' high. 455 kc. Wt. 5 oz.

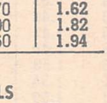
40F133. Type 13-PC1. Input.
NET.. **1.62**
40F134. Type 13-PC2. Output. **NET**......1.62

MILLER IRON CORE CHOKES

Single section duo-lateral wound types. Core is ⅜'' dia. x ½'' long. Solder lugs. Single-hole mounting. Impregnated. All 125 ma except *100 ma. Size, 1⅛'' dia x ⅝'' high. Wt., 4 oz.

Stk. No.	Type	Mh	Ohms	NET
40F030	951	.5	7	.77
40F031	952	1.0	11	.83
40F032	953	2.5	19	.92
40F033	954	5.0	29	1.03
40F034	955	7.5	37	1.12
40F035	956	10.0	47	1.18
40F036	957*	25.0	83	1.28
40F037	958*	50.0	130	1.47
40F038	959*	75.0	170	1.62
40F039	960*	100.0	200	1.82
40F040	961*	150.0	260	1.94

MIDGET OSCILLATOR COILS



Dowel type coils. For use with pentagrid converter tubes, antenna and RF coils or for general replacement. Cover the broadcast band from 540 to 1600 kc with a 365 mmf variable condenser. Unshielded. *For use with 6SA7 and similar mixer tubes. †Require .0006 mfd Padder. §Requires .0004 mfd Padder. Size, 1'' dia., 1'' high. Wt., 5 oz.

Stk. No.	Type	Frequency	NET
40F010	5480-H†	262 kc	1.12
40F011	5480-C§	455 kc	
40F012	5481-H*†	262 kc	
40F013	5481-C*§	455 kc	

MINIATURE TRANSISTOR I.F. TRANSFORMERS

Freq. 455KC

No. 2141-455 KC
Transistor I.F.
Miller

Miniature I.F. xformer having tuned primary and untuned secondary windings. Proper impedance match between primary and secondary insures optimum performance. Wt. 2 oz.

Stk. No.	Type	Imp.—Ohms	Use	NET
40F138	2031	10K600	Input	2.06
40F139	2032	10K1000	Output	
40F140	2041	25K600	Input	
40F141	2042	25K1000	Output	
40F142	2051	100K-1000	Input	

SUB-MINIATURE

Dimensions: ⅜'' sq. x ⅝'' high. Wt. 2 oz.
I. F. Freq. 455KC

Stk. No.	Type	Imp.-Ohms	Use	NET
40F136	9-C1	25K600	Input	2.35
40F137	9-C2	25K-1000	Output	2.35
59F377	2021	B.C. osc. (Tuning cap. 78 mfd.)		2.06

MICRO MINIATURE

Dimensions: 9⁄32'' sq. x 15⁄32'' high. Wt. 2 oz.
Freq. 455kc.

Stk. No.	Type	Imp.-Ohms	Use	NET
59F378	2061	50k-800	Input	2.06
59F379	2062	30k-500	Instage	2.06
59F380	2063	20k-5k	Output	2.06
59F381	2060	B.C. osc. (Tuning cap. 78 to 110 mmfd, max.)		2.06

MINI MINIATURE

Dimensions 13⁄32'' sq. x ½'' high. Wt. 2 oz.
Freq. 455kc.

Stk. No.	Type	Imp.-Ohms	Use	NET
59F382	2066	50k-800 ohms	Input	2.06
59F383	2067	30k-500 ohms	Instage	2.06
59F384	2068	20k-5k ohms	Output	2.06
59F385	2065	B.C. osc. (Tuning cap. 78 to 110 mmfd, max.)		2.06

FM SIGNAL FREQUENCY COILS

RF coils for the 88-108 mc FM band. Give improved selectivity and higher gain. Made of drawn copper wire. Enclosed in aluminum shields. Connections made to solder lugs at the base of the shield. Size, 1⅛'' sq. x 2⅜'' high. Wt., 5 oz.

40F015. Type 1454. Ant. coil
40F016. Type 1455. RF coil
40F017. Type 1456. Osc. coil
NET EACH.. **1.62**

FM IF TRANSFORMERS

10.7 mc. In aluminum shields. Overcoupled to provide standard RTMA bandwidth. 1⅛'' sq. x 2½'' high. Spade bolt mtg. Shpg. wt., 5 oz.

40F018. Type 1451. Inter
NET.. **1.76**
40F019. Type 1452. Discrim.........................2.41
40F131. Type 1453. Ratio Det......................2.41

FM STEREO MULTIPLEX INDUCTORS

Stk. No.	Type	Description	EACH
59F387	1351	Low pass Filter	1.91
59F388	1352	Band Pass Filter Series	1.76
59F389	1353	Band Pass Filter Shunt	1.76
59F390	1354	Locked Oscillator 19 KC	1.82
59F391	1355	Output Xformer 38 kc.	2.20

SUB-MIN 3 GANG VARIABLE CAPACITOR

Stk. No.	Type	Size	EACH
59F394	1460	1 1⁄16x1 3⁄16x2''	3.82

SUB-MIN VARIABLE CAPACITOR

Stk. No.	Type	Sec.	Size	EACH
59F386	2109	2	1⅛x1⅛x¾''	2.06

MINIATURE I.F. TRANSFORMERS

Stk. No.	Type	Desc.	EACH
59F392	12-C30	455 KC Input I.F.	1.58
59F393	12-C31	455 KC Output I.F.	1.58

J. W. MILLER R.F. CHOKES AND COILS

NEWARK CARRIES
COMPLETE LINES

SUB-MINIATURE RF CHOKES

Versatile series of sub-miniature iron core R.F. chokes. Designed to meet industries' demand for high reliability miniature components. Ideally suited to network and filter design, delay lines and computer application. Rated at 50 ma. Av. Shpg. wt. 2 oz.

Stock No.	Type	Induct. ±5%	Q @ Freq.	1-24	25-49	50-99	100-249
59F212	70F106A1	1 uH	52@7.9 Mc	.56	.52	.49	.40
59F213	70F126A1	1.2uH	55@7.9 Mc				
59F214	70F156A1	1.5uH	61@7.9 Mc				
59F215	70F186A1	1.8uH	49@7.9 Mc				
59F216	70F226A1	2.2uH	60@7.9 Mc				
59F217	70F276A1	2.7uH	49@7.9 Mc				
59F218	70F336A1	3.3uH	60@7.9 Mc				
59F219	70F396A1	3.9uH	56@7.9 Mc				
59F220	70F476A1	4.7uH	58@7.9 Mc				
59F221	70F566A1	5.6uH	56@7.9 Mc				
59F222	70F686A1	6.8uH	51@7.9 Mc				
59F223	70F826A1	8.2uH	51@7.9 Mc				
59F224	70F105A1	10 uH	61@2.5 Mc	.65	.60	.56	.46
59F225	70F125A1	12 uH	65@2.5 Mc				
59F226	70F155A1	15 uH	65@2.5 Mc				
59F227	70F185A1	18 uH	66@2.5 Mc				
59F228	70F225A1	22 uH	64@2.5 Mc				
59F229	70F275A1	27 uH	62@2.5 Mc				
59F230	70F335A1	33 uH	63@2.5 Mc				
59F231	70F395A1	39 uH	61@2.5 Mc				

Stock No.	Type	Induct. ±5%	Q @ Freq.	1-24	25-49	50-99	100-249
59F232	70F475A1	47 uH	60@2.5 Mc	.65	.60	.56	.46
59F233	70F565A1	56 uH	57@2.5 Mc				
59F234	70F685A1	68 uH	55@2.5 Mc				
59F235	70F825A1	82 uH	55@2.5 Mc				
59F236	70F104A1	100 uH	50@790 Kc				
59F237	70F154A1	150 uH	55@790 Kc				
59F238	70F224A1	220 uH	57@790 Kc				
59F239	70F334A1	330 uH	59@790 Kc				
59F240	70F474A1	470 uH	59@790 Kc	.74	.68	.64	.52
59F241	70F684A1	680 uH	55@790 Kc				
59F242	70F824A1	820 uH	53@790 Kc				
59F243	70F103A1	1.00mh	50@790 Kc				
59F244	70F153A1	1.5 mh	50@250 Kc				
59F245	70F223A1	2.2 mh	50@250 Kc	.80	.75	.70	.57
59F246	70F333A1	3.3 mh	70@250 Kc				
59F247	70F473A1	4.7 mh	68@250 Kc				
59F248	70F683A1	6.8 mh	64@250 Kc				
59F249	70F823A1	8.2 mh	60@250 Kc	.98	.91	.85	.80
59F250	70F102A1	10.00mh	60@250 Kc				

RF CHOKES WITH AXIAL LEADS

Small size low capacity chokes with solenoid or 3-pi universal windings. Wound on low-loss molded phenolic or powdered iron core forms. Impregnated with a moisture- and fungus-resistant varnish. The type of powdered iron allows operation up to UHF region. Tol. ±5%. Dimensions: Phenolic form—3/16" dia., 3/4" L. Iron core form: 7/32" dia., 7/8" long. Av. Shpg. wt. 2 oz.

Phenolic Form—Single Layer Solenoid

Stock No.	Type	Induct. uH	Ohms	MA	1-24	25-49	50-99	100-249
59F264	4580	0.1	.01	300	.44	.41	.39	.32
59F265	4582	0.15	.012	300				
59F266	4584	0.22	.017	300				
59F267	4586	0.33	.019	300				
59F268	4588	0.47	.022	300				
59F269	4590	0.68	.03	300				
59F270	4592	0.75	.033	300				
59F271	4594	0.82	.035	300				
59F272	4602	1.0	.05	300				
59F273	4604	1.5	.08	300				
59F274	4606	2.4	.16	300				
59F275	4608	3.9	.50	300				
59F276	4609	5.5	.69	300	.47	.44	.41	.34
59F277	4610	6.2	.75	300				
59F278	4611	8.2	1.12	300				
59F279	4612	10.00	1.5	300				

Iron Core Form—3 Section Pi Windings

Stock No.	Type	Induct. mH	Ohms	MA	1-24	25-49	50-49	100-249
59F302	4662	1	7	125	.65	.60	.56	.46
59F303	4664	1.5	9	125	.67	.62	.58	.47
59F304	4666	2.4	12	125	.74	.68	.64	.52
59F305	4668	3.9	17	125	.80	.74	.69	.56
59F306	4669	5.5	22	125	.92	.86	.80	.66
59F307	4670	6.2	33	100	.92	.86	.80	.66
59F308	4671	8.2	45	100	1.09	1.01	.94	.77
59F309	4672	10.00	47	50	1.26	1.17	1.09	.89

Iron Core Form—Single Layer Solenoid

Stock No.	Type	Induct.	Ohms	MA	1-24	25-49	50-99	100-249
59F282	4622	10uH	.06	300	.50	.47	.44	.36
59F283	4624	15uH	.12	300	.50	.47	.44	.36
59F284	4626	24uH	.28	300	.53	.49	.46	.38
59F285	4628	39uH	.65	300	.53	.49	.46	.38
59F286	4629	55uH	.92	300	.56	.52	.49	.40
59F287	4630	62uH	1.0	300				
59F288	4631	82uH	1.6	300				
59F289	4632	100uH	2.0	200				

Phenolic Form—3 Section Pi Winding

59F292	4642	0.1 mH	4.1	125	.56	.52	.49	.40
59F293	4644	0.15mH	5	125				
59F294	4646	0.24mH	6.6	125				
59F295	4648	0.39mH	8.7	125	.62	.58	.54	.44
59F296	4649	0.55mH	10.0	125				
59F297	4650	0.62mH	11.0	125				
59F298	4651	0.75mH	13.0	125				
59F299	4652	1.00mH	15.0	125				

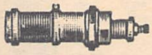
Ferrite Core RF Chokes

High permeability ferrite cores. Combine high inductance with low DC resistance and small physical size. 3-pi universal windings insure low distributed capacity. Dimensions of core: 1/4" dia., 7/8" long. 1/2" long axial leads.

59F312	6302	2.5mH	8.3	200	.80	.74	.70	.57
59F313	6304	5.0mH	13.5	200	.92	.86	.80	.66
59F314	6306	10.0mH	28.0	125	1.06	.98	.92	.75
59F315	6308	25.0mH	70.0	75	1.23	1.14	1.06	.87
59F316	6310	50.0mH	110	75	1.41	1.21	1.12	.90

ADJUSTABLE CERAMIC FORMS AND RF COILS

Permeability tuned coils wound on silicone impregnated ceramic forms. Forms alone supplied with freq. range of 1-30 Mc, for other ranges add suffix to type number (Y) 50-1000 Kc, (W) 30-300 Mc.



Standard RF Coils and Forms (3/8" Dia., 1-1/16" Long)

Stock No.	Type	Inductance Range (uH)	1-24	25-49	50-99	100-249
59F337	4400	Form only	1.12	1.03	.96	.78
59F338	4403	.9-1.6	1.59	1.48	1.39	1.14
59F339	4404	1.5-3.2	1.62	1.50	1.40	1.15
59F340	4405	3.1-6.8	1.65	1.53	1.43	1.17
59F341	4406	6.7-15	1.71	1.58	1.48	1.21
59F342	4407	14.8-31	1.77	1.63	1.53	1.25
59F343	4408	30-69	1.79	1.65	1.54	1.26
59F344	4409	68-130	1.85	1.71	1.59	1.30
59F345	4410	126-250	1.88	1.74	1.63	1.33
59F346	4411	245-475	1.91	1.77	1.65	1.35
59F347	4412	450-800	1.94	1.80	1.68	1.37
59F348	4413	750-1400	1.97	1.82	1.70	1.39
59F349	4414	1300-2100	1.97	1.82	1.70	1.39

Miniature Adjustable RF Coils (1/4" Dia., 7/8" Long)

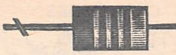
Stock No.	Type	Inductance Range (uH)	1-24	25-49	50-99	100-249
59F352	4500	Form only	1.03	.94	.88	.71
59F354	4502	1.0-1.6	1.47	1.36	1.28	1.05
59F355	4503	1.6-2.8	1.53	1.42	1.33	1.09
59F356	4504	2.8-5	1.56	1.45	1.35	1.11
59F357	4505	5-9	1.62	1.50	1.40	1.15
59F358	4506	9-16	1.68	1.55	1.45	1.19
59F359	4507	16-24	1.73	1.60	1.49	1.22
59F360	4508	24-35	1.77	1.63	1.53	1.25
59F361	4509	35-60	1.79	1.65	1.54	1.26
59F362	4511	60-120	1.82	1.71	1.60	1.31
59F363	4512	110-200	1.85	1.71	1.59	1.30
59F364	4513	190-330	1.88	1.74	1.63	1.33
59F365	4514	320-500	1.91	1.77	1.65	1.35

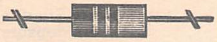
Subminiature Adjustable RF Coils (3/16" Dia., 5/8" Long)

59F319	4300	Form only	1.03	.95	.89	.72
59F320	4301	0.17-0.27	1.47	1.36	1.28	1.05
59F321	4302	0.27-0.41	1.47	1.36	1.28	1.05
59F322	4303	0.40-0.65	1.53	1.42	1.33	1.09
59F323	4304	0.64-0.95	1.56	1.45	1.35	1.11
59F324	4305	0.94-1.55	1.62	1.50	1.40	1.15
59F325	4306	1.5-2.57	1.68	1.55	1.45	1.19
59F326	4307	2.5-4.40	1.73	1.60	1.49	1.22
59F327	4308	4.3-7.15	1.76	1.62	1.52	1.24
59F328	4309	7.1-12.5	1.79	1.65	1.54	1.26
59F329	4310	12.4-20.3	1.82	1.71	1.60	1.31
59F330	4311	20.1-32.8	1.85	1.71	1.59	1.30
59F331	4312	32.5-51.5	1.88	1.74	1.63	1.33
59F332	4313	51-102	1.91	1.77	1.65	1.30
59F333	4314	101-180				
59F334	4315	178-300				

J. W. MILLER CHOKES AND COILS

MIL-SPEC MOLDED R.F. CHOKES





Small, hermetically sealed, R.F. chokes wound on †iron or ‡phenolic cores. Conform to MIL-C-15305A Class 7. Designed for use in transmitters, receivers, VFO's and all other electronic devices which require high quality, dependable performance and small sized chokes. Average shipping weight: 2 oz.

Series 9310

Conform to MS-16225. Size: .155" dia. x .375" long. Leads: #22 TCW; 1.437" long. Power rating: ¼ watt at 90°C.

Stk. No.	Type	uh	% Tol.	MA.	1-24	25-49	50-99	100-249
59F100	9310-10‡	.82	20	930	.59	.53	.48	.40
59F101	9310-12‡	1.00	10	875	.59	.53	.48	.40
59F102	9310-42†	18.0	10	300	.65	.59	.53	.44
59F103	9310-44†	22.0	10	275	.65	.59	.53	.44
59F104	9310-46†	24.0	5	275	.74	.66	.59	.50

Series 9320

Conform to MS-16224. Size: .185" dia. x .437" long. Leads: #22 TCW; 1.437" long. Power rating: ⅓ watt max. at 90°C.

Stk. No.	Type	uh	% Tol.	MA.	1-24	25-49	50-99	100-249
59F106	9320-12‡	1.5	10	720	.59	.53	.48	.40
59F107	9320-16‡	2.7	10	450	.59	.53	.48	.40
59F108	9320-18†	3.3	10	1300	.65	.59	.53	.44
59F109	9320-20†	3.9	10	1130	.65	.59	.53	.44
59F110	9320-22†	4.7	10	915	.65	.59	.53	.44

Series 9330

Conform to MS16222. Size: .215" dia. x .560" long. Leads: #22 TCW; 1.437: long. Power rating: ½ watt max. at 90°C.

Stk. No.	Type	uh	% Tol.	MA.	1-24	25-49	50-99	100-249
59F112	9330-18†	5.6	10	1500	.74	.66	.59	.50
59F113	9330-20†	6.8	10	1250	.74	.66	.59	.50
59F114	9330-22†	8.2	10	1190	.74	.66	.59	.50
59F115	9330-24†	10.0	10	990	.74	.66	.59	.50
59F116	9330-30†	18.0	10	680	.74	.66	.59	.50

Series 9340

Conform to MS-16221. Size: .280" dia. x .900" long. Leads: #22 TCW 1.437" long. Power rating: 1 watt max. at 90°C.

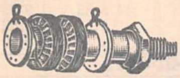
Stk. No.	Type	uh	% Tol.	MA.	1-24	25-49	50-99	100-249
59F118	9340-04‡	2.2	10	1980	.77	.68	.61	.52
59F119	9340-06‡	2.7	10	1600	.77	.68	.61	.52
59F120	9340-08‡	3.3	10	1275	.74	.66	.59	.50
59F121	9340-10‡	3.9	10	1145	.74	.66	.59	.50
59F122	9340-12‡	4.7	10	950	.74	.66	.59	.50

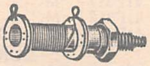
Series 9350

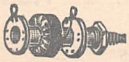
Conform to MS-16223. Size: .250" dia. x .560" long. Leads #22 TCW; 1.437" long. Power rating: ¾ watt at 90°C.

Stk. No.	Type	uh	% Tol.	MA.	1-24	25-49	50-99	100-249
59F124	9350-00‡	47	10	275	1.00	.90	.81	.68
59F125	9350-02‡	56	10	225	1.00	.90	.81	.68
59F126	9350-04†	68	10	330	1.06	.95	.86	.72
59F127	9350-06†	82	10	310	1.06	.95	.86	.72
59F128	9350-08†	100	10	300	1.06	.95	.86	.72

INDUSTRIAL TYPE ADJUSTABLE R.F. COILS







Wound on ceramic cores. Feature terminal rings machined from the ceramic form material. They have high Q and good stability. The adjusting core is held rigidly at any setting through the use of a tension device on the bushing.

Sub-Miniature Coils

7/32" dia. x 19/32" L.

Stock No.	Type	uh max.	uh min.	1-24	25-49	50-99	100-249
59F131	40A107CBI	.125	.091	1.68	1.51	1.41	1.12
59F132	40A157CBI	.188	.124				
59F133	40A227CBI	.220	.184				
59F134	40A337CBI	.413	.265				
59F135	40A477CBI	.587	.327	1.71	1.54	1.43	1.14
59F136	40A687CBI	.850	.482	1.71	1.54	1.43	1.14
59F137	40A827CBI	1.02	.630	1.80	1.62	1.51	1.20
59F138	40A106CBI	1.25	.730	1.80	1.62	1.51	1.20
59F139	40A156CBI	1.88	1.06	1.80	1.62	1.51	1.20
59F140	40A226CBI	2.75	1.50	1.83	1.65	1.53	1.83
59F141	40A336CBI	4.13	2.15	1.83	1.65	1.53	1.83
59F142	40A476CBI	5.87	3.00	1.92	1.73	1.61	1.28
59F143	40A686CBI	8.50	4.40	1.92	1.73	1.61	1.28
59F144	40A826CBI	10.2	5.25	1.92	1.73	1.61	1.28
59F145	40A105CBI	12.5	8.06	1.98	1.78	1.66	1.32
59F146	40A155CBI	18.8	11.9	1.98	1.78	1.66	1.32
59F147	40A225CBI	27.5	17.1	2.04	1.84	1.71	1.36
59F148	40A335CBI	41.3	26.6	2.04	1.84	1.71	1.36
59F149	40A475CBI	58.7	39.0	2.13	1.92	1.79	1.42
59F150	40A685CBI	85.0	58.0	2.13	1.92	1.79	1.42
59F151	40A825CBI	102	69.0	2.13	1.92	1.79	1.42
59F152	40A104CBI	125	84.0	2.31	2.08	1.94	1.54
59F130	40A000CBI	Coil Form w/hdw. and Core		2.31 1.14	2.08 1.03	1.94 .96	1.54 .76

Miniature Coils

¼" dia. x 13/16" L.

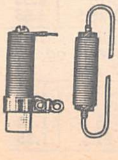
Stock No.	Type	uh max.	uh min.	1-24	25-49	50-99	100-249
59F156	41A106CBI	1.25	.69	1.80	1.62	1.51	1.20
59F157	41A156CBI	1.87	1.20				
59F158	41A226CBI	2.75	1.42				
59F159	41A336CBI	4.10	2.00	1.83	1.65	1.54	1.22
59F160	41A476CBI	5.80	2.80				
59F161	41A686CBI	8.50	4.00				
59F162	41A826CBI	10.0	4.50	1.86	1.67	1.56	1.24
59F163	41A105CBI	12.5	6.50				
59F164	41A155CBI	18.7	10.8				
59F165	41A225CBI	27.5	15.2				
59F166	41A335CBI	41.0	26.0	1.92	1.73	1.61	1.28
59F167	41A475CBI	58.0	32.5	1.92	1.73	1.61	1.28
59F168	41A685CBI	85.0	48.5	1.98	1.78	1.66	1.32
59F169	41A825CBI	100	61.0	1.98	1.78	1.66	1.32
59F170	41A104CBI	125	65.0	2.04	1.84	1.71	1.36
59F171	41A154CBI	187	110	2.04	1.84	1.71	1.36
59F172	41A224CBI	275	160	2.13	1.92	1.79	1.42
59F173	41A334CBI	410	253	2.13	1.92	1.79	1.42
59F174	41A474CBI	580	390	2.25	2.02	1.89	1.50
59F175	41A684CBI	850	560	2.31	2.08	1.94	1.54
59F176	41A824CBI	1000	670	2.37	2.13	1.99	1.58
59F177	41A103CBI	1250	700	2.46	2.21	2.07	1.64
59F155	41A000CBI	Coil Form w/ hdw. and Core		1.20	1.08	1.01	.80

Standard Coils

⅜" dia. x 1" L.

Stock No.	Type	uh max.	uh min.	1-24	25-49	50-99	100-249
59F181	42A106CBI	1.25	.68	1.80	1.62	1.51	1.20
59F182	42A156CBI	1.87	1.00	1.80	1.62	1.51	1.20
59F183	42A226CBI	2.75	1.35	1.80	1.62	1.51	1.20
59F184	42A336CBI	4.10	2.12	1.83	1.65	1.54	1.22
59F185	42A476CBI	5.80	2.40	1.83	1.65	1.54	1.22
59F186	42A686CBI	8.50	3.60	1.86	1.67	1.56	1.24
59F187	42A826CBI	10.0	4.45	1.86	1.67	1.56	1.24
59F188	42A105CBI	12.5	6.05	1.98	1.78	1.66	1.32
59F189	42A155CBI	18.7	9.40	1.98	1.78	1.66	1.32
59F190	42A225CBI	27.5	12.9	2.01	1.81	1.69	1.34
59F191	42A335CBI	41.0	18.8	2.01	1.81	1.69	1.34
59F192	42A475CBI	58.0	27.5	2.16	1.94	1.81	1.44
59F193	42A685CBI	85.0	37.5	2.19	1.97	1.84	1.46
59F194	42A825CBI	100	45.0	2.25	2.03	1.89	1.50
59F195	42A104CBI	125	54.0	2.34	2.11	1.97	1.56
59F196	42A154CBI	187	92.0	2.34	2.11	1.97	1.56
59F197	42A224CBI	275	123	2.13	1.92	1.79	1.42
59F198	42A334CBI	410	200	2.37	2.13	1.99	1.58
59F180	42A000CBI	Coil Form w/hdw. and Core		1.26	1.13	1.06	.84

FREQUENCY SELECTIVE R.F. CHOKES

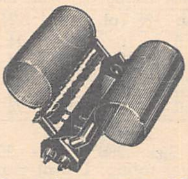


Designed for maximum efficiency and highest impedance at specific operating frequencies. Eliminates the designer's task of attempting to choose the best coil for a particular application from miscellaneous and often insufficient design data. Designed to cover the major amateur, industrial and citizens bands and will also operate efficiently at frequencies approximating the recommended frequencies.

Stk. No.	Type	uh	Freq. Mc.	1-24	25-49	50-99	100-249
59F253	RFC-3.5	266	1.8-5	1.20	1.08	1.01	.80
59F254	RFC-7	208	3-13	1.05	.95	.88	.70
59F255	RFC-14	84	7-20	.69	.62	.58	.46
59F256	RFC-21	38.5	15-30	.60	.54	.50	.40
59F257	RFC-28	24	25-40	.60	.54	.50	.40
59F258	RFC-50	8.2	30-90	.60	.54	.50	.40
59F259	RFC-144	1.72	75-180	.51	.46	.43	.34
59F260	RFC-220	.82	160-340	.51	.46	.43	.34
59F261	RFC-420	.22	325-500	.51	.46	.43	.34

B & W COILS

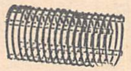
BALUN INDUCTORS



Type 3976
Sturdy bifilar air-wound balun inductor designed to match 300 ohm antenna feed lines to transmitters having unbalanced PI matching networks. Will also match 75 ohm unbalanced outputs to 75 and 300 ohm balanced feed lines. Two of these coils serve as compact, highly efficient multi-band (80 to 10 meters) unit for matching feed line systems to both transmitters and receivers. Specially designed for use with Collins 32-V series, Johnson Viking and similar transmitters. 250W. input. With base, connectors and coils. Shpg. wt., 1 lb.

40F927. NET **8.95**

B & W "MINIDUCTORS"



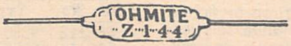
Low-loss coil lengths for the experimenter. Air-wound turns molded in polystyrene strips. ½", ⅝" and ¾" diameters are 2" long. The lengths for other diameters are noted in the tables below. All are easily cut to desired length. Shpg. wt., 5 oz.

Stock No.	Mfrs. Type	Dia.	Turns Per In.	NET EACH
40F930	3001	½"	4	45c
40F931	3002	½"	8	
40F932	3003	½"	16	
40F933	3004	½"	32	
40F934	3005	⅝"	4	54c
40F935	3006	⅝"	8	
40F936	3007	⅝"	16	
40F937	3008	⅝"	32	
40F938	3009	¾"	4	63c
40F939	3010	¾"	8	
40F940	3011	¾"	16	
40F941	3012	¾"	32	
Length, 3 inches				
40F942	3013	1"	4	69c
40F943	3014	1"	8	
40F944	3015	1"	16	
40F945	3016	1"	32	
Length, 4 inches				
40F860	3017	1¼"	4	75c
40F861	3018	1¼"	8	
40F862	3019	1¼"	16	
40F863	3020	1¼"	32	
40F864	3021	1¾"	4	90c
40F865	3022	1¾"	8	
40F866	3023	1¾"	16	
40F867	3024	1¾"	32	
Standard Inductors. 10" long. Wt., 5 oz.				
40F949	3900	2"	8	1.95
40F946	3905-1	2½"	6	2.35
40F947	3906-1	2½"	8	2.35
40F948	3907-1	2"	10	1.95

NEWARK HAS FOR IMMEDIATE DELIVERY, THE MOST COMPLETE STOCK OF ELECTRONIC EQUIPMENT AT MONEY-SAVING PRICES.

OHMITE

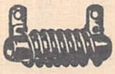
RF PLATE CHOKES



Small high frequency chokes wound on †steatite or ‡plastic cores. Insulated moisture-proof coating. Single layer winding avoids harmonic effects and prevents breakdown from high RF potentials. Z-7 has mounting brackets. *600 ma; all others 1000 ma rating. Wt., 3 oz.

No.	Type	MC	μh	NET
40F250	Z-460‡	320-520	0.20	.42
40F251	Z-235‡	160-350	0.84	.42
40F252	Z-144‡	80-200	1.8	.42
40F253	Z-50‡	35-110	7.0	.45
40F254	Z-28†	20-60*	21.0	.56
40F255	Z-14†	7-35*	44.0	.67
40F256	Z-7†	3-20	84.0	1.34

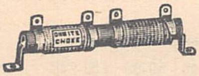
PARASITIC SUPPRESSOR



Type P-300. Prevents UHF parasitic oscillations in plate and grid leads of push-pull circuits. Non-inductive 50 ohm vitreous resistor with overwound .3 uh choke in parallel. Size, 1¾x2$\frac{1}{32}$" dia. 2 oz.

40F264. NET **1.55**

POWER LINE CHOKES

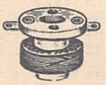


Prevent high frequency currents of transmitters and diathermy equipment from feeding into power lines. All 20 amps except *5, and †10. Use as filter with two .1 mfd capacitors. Wound on ceramic core with moisture-proof coating. Shipping weight, 2 oz. to 1½ lbs.

No.	Type	μh	Ohms	Size	NET
40F260	Z-20*	14	0.15	4x$\frac{9}{16}$"	1.93
40F261	Z-21†	15	0.07	6½x¾"	2.54
40F262	Z-22	18	0.045	8½x1⅛"	5.84
40F263	Z-30	46	0.085	8½x1⅛"	7.19

BUD CHOKES

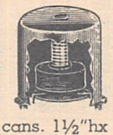
BUD LATTICE WOUND RF CHOKES



Unshielded type on ceramic bobbin. All are 125 ma except *100, †90, ‡80. Mounts with 6-32 screw. Dia., 1$\frac{1}{16}$". With soldering lugs. 4 oz.

No.	Type	MH	Ohms	1-49	50-99
40F200	CH-1212	2.5	28	.63	.57
40F202	CH-1214	5.5	46	.83	.75
40F203	CH-1215	8	60	.83	.75
40F205	CH-1217	16	84	.83	.75
40F206	CH-1218*	30	190	.85	.76
40F207	CH-1219†	60	279	1.01	.91
40F208	CH-1220‡	80	332	1.08	.97

BUD SHIELDED IRON CORE CHOKES

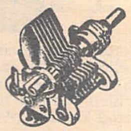


Improves "Q" of choke by providing 40 to 50% less DC resistance over air core types with equivalent reactance. Have finely divided molded metallic cores. Windings are silk-covered enamel. Solder lugs. Mounted in small shield cans. 1½"hx 1$\frac{7}{16}$"dia. All 125 ma except '100, and †90. Shpg. wt., 4 oz.

No.	Type	MH	Ohms	1-49	50-99
40F215	CH-1283	16	53	1.46	1.31
40F216	CH-1284*	30	82	1.50	1.35
40F217	CH-1285*	60	131	1.71	1.54
40F218	CH-1286†	80	163	1.83	1.65
40F219	CH-1287†	125	221	2.03	1.83
40F220	SH-294	Shield can only		.30	.27

HAMMARLUND

MC MIDGET CAPACITORS

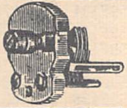


Steatite-insulated condensers with plated brass plates. Double-bearing design. Wide bearing for perfect contact. Ideal for mobile units. ¼" shaft. Single-spaced types .0245", test at 1,000 volts AC; double-spaced types, .0715", test at 1,750 volts AC. Capacity increases clockwise. *Semi-circular plates, all others midline. Shpg. wt., 10 oz.

SINGLE-SPACED MIDGETS

No.	Type	Range-mmf	NET
41F300	*MC-20-S	5.5-20	2.27
41F301	*MC-35-S	6.0-35	2.31
41F302	*MC-50-S	6.5-50	2.48
41F303	MC-50-M	6.3-50	2.46
41F304	*MC-75-S	8.0-80	2.55
41F305	MC-75-M	7.3-80	2.57
41F306	*MC-100-S	8.3-100	2.69
41F307	MC-100-M	7.7-100	2.72
41F308	MC-140-M	9.0-140	2.88
41F309	*MC-140-S	10.0-140	2.85
41F310	MC-200-M	10.3-200	3.27
41F311	MC-250-M	12.0-250	3.41
41F312	MC-325-M	13.5-320	3.90
DOUBLE-SPACED MIDGETS			
41F314	*MC-20 SX	6.8-20	2.63
41F315	*MC-35-SX	8.5-32	2.79
41F316	MC-35-MX	7.8-32	2.69
41F317	*MC-50-SX	11.5-53	3.05
41F318	MC-50-MX	10.5-53	3.02
41F319	*MC-100-SX	16.5-100	3.87
DUAL MIDGETS			
41F320	MCD-50-M	5.5-50	7.25
41F321	MCD-100-M	6.3-100	7.74
41F322	*MCD-100-S	7.0-150	6.74
41F323	MCD-140-M	7.8-140	8.16
DOUBLE-SPACED DUAL MIDGETS			
41F324	MCD-35-MX	6.0-31	7.44
41F325	*MCD-35-SX	6.8-31	6.51

APC MICROS



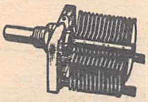
Air-dielectric condensers. Steatite base. Air gap .015". Will fit 1¼" diameter coil frames. Screwdriver adj. Wt., 4 oz.

No.	Type	Range-mmf	NET
41F326	APC-25	3.0-25	1.35
41F327	APC-50	3.9-50	1.55
41F328	APC-75	4.6-75	1.70
41F329	APC-100	5.5-100	1.85
41F330	APC-140	7.8-140	2.15

Type MAPC. A scaled-down version of the A P C. Nickel plated. Steatite insulation. Screwdriver adjustment. Wt., 6 oz.

41F343	MAPC-15	2.3-15	1.01
41F344	MAPC-25	2.6-25	1.10
41F345	MAPC-35	2.9-35	1.10
41F346	MAPC-50	3.2-50	1.19
41F347	MAPC-75	3.9-75	1.28
41F348	MAPC-100	4.5-100	1.44

HF MICROS



For tuning or trimming critical HF circuits. Nickel plated. Steatite insulation. HFD are split stator. *Double spaced units. Shipping weight, 6 oz.

No.	Type	Range-mmf	NET
41F331	HF-15	2.8-17.5	1.14
41F332	HF-35	3.2-36	1.25
41F333	HF-50	3.7-52	1.31
41F334	HF-100	5.3-102	1.49
41F335	HF-140	6.3-142	1.74
41F336	*HF-15-X	3.6-15	1.29
41F337	*HF-30-X	5.2-30	1.43
41F338	HFD-50	3.6-52	4.55
41F339	HFD-100	5.0-102	4.98
41F340	HFD-140	6.0-142	5.15
41F341	*HFD-15-X	3.8-16	4.55
41F342	*HFD-30-X	5.0-28.5	4.65

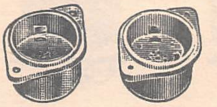
Type MAC. VHF trimmer. Nickel plated. Steatite insulation. Screwdriver adjustment. Air gap: 00.017. Wt., 7 oz.

41F349	MAC-5	1.3-5.4	1.00
41F350	MAC-10	1.5-9.6	1.05
41F351	MAC-15	1.9-15.8	1.20
41F352	MAC-20	2.2-21.5	1.35

ELECTRONIC COMPONENTS

RAYPAR ELECTRONIC COMPONENTS

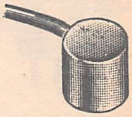
25KV HI VOLTAGE MOLDED SOCKETS



Ideal for high-voltage and UL applications. Body and mounting flange are integrated 1-piece molding of low-loss arc-resisting mica phenolic. Socket platform is recessed ¾'' below top of mounting flange. Rated at 25 KV. working and 38 KV. peak. Mounts in 2 3/16'' diameter hole with flange above or below chassis. Flange holes are centered 2¾'' apart and take #6 screws., Available in octal and 9-pin miniature types.

Stk. No.	Type	Socket	1-24	25-99	100-499
38F798	S0-38	Octal	53c	49c	36c
38F799	S0-39	Noval			

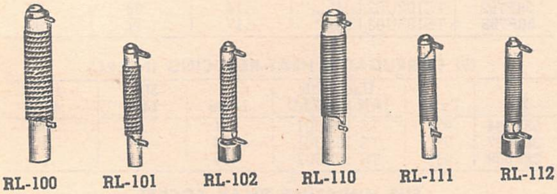
INSULATED PLATE CAPS



For applications up to 25 KV. Extra heavy wall thickness. Available in tan Alkyd or white phenolic. 12'' lead of high temperature double wall plastic in matching color is welded to the cup connector.

Stk. No.	Type	Color	Size	1-24	25-99	100-499	500-999
28F971	PC-22B	Brown	¼''	23c	21c	18c	15c
28F972	PC-22W	White	¼''				
28F973	PC-23B	Brown	⅜''				
28F974	PC-23W	White	⅜''				

FREQUENCY-RATED RF CHOKES



New transmitting chokes designed for peak efficiency over prescribed frequencies. All single hole mounting. RL-102 and RL-112 equipped with 6-32 stud for mounting atop ceramic by-pass capacitor. Shipping Weight: 6 oz.

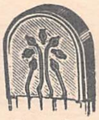
FOR 10 THROUGH 80 METER BANDS

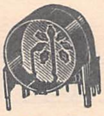
Stk. No.	Type	Plate Voltage	MA.	NET
40F328	RL-100	4000 CW, 3000 AM	800	2.91
40F329	RL-101	2000 CW, 1500 AM	500	2.50
40F330	RL-102	2000 CW, 1500 AM	500	2.50
FOR 6 THROUGH 20 METER BANDS				
40F331	RL-110	4000 CW, 3000 AM	1500	2.91
40F332	RL-111	2000 CW, 1500 AM	500	2.50
40F333	RL-112	2000 CW, 1500 AM	500	2.50

Important: RL-100, RL-101, and RL-102 should not be operated in the vicinity of 25 mcs. where the coils' first series resonance is located.

AEROVOX RIGHT ANGLE TUBE SOCKETS

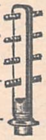
Ideal where space is at a premium. Designed to meet MIL specifications. Contacts are silver plated. Can be used in printed circuit boards. Long terminals allow use of socket on any board thickness. Template furnished with each socket. * Includes tube shield.

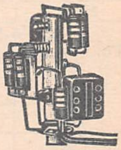

Type A


Type BX

Stk. No.	Type	Application	Pins	1-24	25-99	100-499
16F1073	RA7A	Gen. Purpose	7	.83	.66	.50
16F1074	RA7AX	Heavy-Duty	7	.85	.68	.51
16F1075	RA7B*	Gen. Purpose	7	.90	.72	.54
16F1076	RA7BX*	Heavy-Duty	7	1.08	.86	.65
16F1077	RA9A	Gen. Purpose	9	.99	.79	.59
16F1078	RA9AX	Heavy-Duty	9	1.01	.81	.61
16F1079	RA9B*	Gen. Purpose	9	1.06	.85	.64
16F1080	RA9BX*	Heavy-Duty	9	1.24	.99	.74

SANGAMO TOTEM POLE





Enables technicians to fasten leads and connections (in sub-assembly stage) faster, more efficiently; cuts wiring costs. Provides adequate mounting support for small components. Reduces critical leads. Melamine insulation. Wt., 2 oz.

Stock No.	Cross Bars	Height	NET 1-9	NET 10-49
32F110	4	2.125	59c	53c
32F111	3	1.725		
32F112	2	1.425		

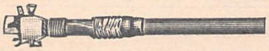
EBY SOCKETS

Eby Sockets. One piece molded bakelite with contact markings on base. 1 11/16'' mtg. ctrs. Shpg. wt., 4 oz.

Stk. No.	Type	Contacts	NET
38F640	12-4	4	.37
38F641	12-5	5	.43
38F642	12-6	6	.44
38F643	12-7-N-O	7 comb.	.46
38F644	12-8	Octal	.51

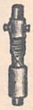
SUPEREX ANTENNA LOOPSTICKS

ENERGIZED FERRI-LOOPSTICK



Even brand new radios, still equipped with old-fashioned loop antennas, can benefit from this "hot" loopstick. Adds 20% gain to even the powerful Ferri-Loopstick. Q up to 350. 1-hole snap in mount. Shpg. wt., 3 oz.
40F162. NET **88c**

FERRI-LOOPSTICK



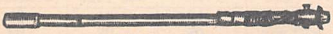
Extremely sensitive ferrite core coil that completely eliminates the need for bulky loop antennas. Ideal for portable receivers. Equally efficient at every angle. Mounts in any position. Once tuned, no further tuning is needed. Shpg. wt., 3 oz.
40F160. NET **44c**

VARI-LOOPSTICK

Similar to loopstick at left, but has added advantages of micrometer adjustment and 1-hole snap-in mount. Average effective "Q" is 250, 2½ times that of old-fashioned loop antennas. Permits adjustment for maximum efficiency on several stations consecutively. 3 oz.
40F161. NET **59c**

SUPEREX 7" LOOPSTICK

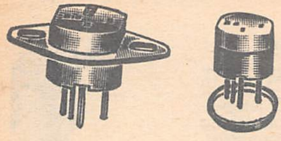
Almost like adding another stage of IF. "Q" up to 425, will pull in stations never before heard. Two alternate quick mounting methods. Self-locking vinyl adjustment collar. Omni-Directional: Equally sensitive and efficient at every angle. No orientation or moving of receivers to get better reception. Greater receiving range. Stable performance, unaffected by adjacent inductive elements. Shpg. wt. 4 oz.
40F229. NET **1.32**


7'' Loopstick

NEWARK can supply all electronic accessories: A one point source for all your electronic needs.

Consult with NEWARK'S staff on problems of supply or manufacturing details.

ELCO SOCKETS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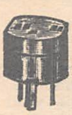
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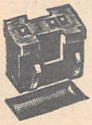
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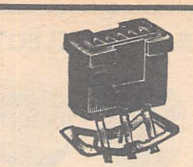
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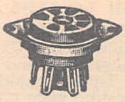
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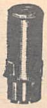

F

(A) COMBINATION TRANSISTOR SOCKET

Mica construction, with beryllium copper contacts, silver plated and gold flashed. Shpg. wt. 4 oz.

No.	Type	Description	1-499	500-1499	1500-4999
38F690	3301	Flat saddle mtg.	.18	.11	.10
38F692	3304	Retainer mtg.	.14	.09	.08
38F553	3307	Retainer mtg.	.17	.11	.10
38F557	3313	Retainer mtg.	.20	.13	.11
RETAINER RING					
38F558	757	Retainer	.03	.03	.02

(B) COMBINATION TRANSISTOR SOCKET, STANDOFF TYPE

For printed circuitry, Mica construction, with beryllium copper, silver plated and gold flashed contacts. Shpg. wt., 4 oz.

No.	Type	Description	1-499	500-1499	1500-4999
38F691	3303	Standoff	.14	.09	.08
38F560	3305	Standoff	.14	.09	.08
38F561	3308	Standoff	.17	.11	.09

(C) 3-PIN SUB-MINIATURE TRANSISTOR SOCKET

For printed circuits, point contact, and junction type. Low loss mica filled insulator, beryllium copper contacts. Shpg. wt. 4 oz.

No.	Type	1-499	500-1499	1500-4999
38F563	786 BC	.12	.08	.07

(C) 4-PIN SUB-MINIATURE TRANSISTOR SOCKET

For printed circuits, linotetrar type. Mica filled insulator, beryllium copper, silver plated, gold flashed contacts. Shpg. wt. 4 oz.

No.	Type	1-499	500-1499	1500-4999
38F564	805 BC	.12	.08	.07
38F565	799BC	.10	.07	.06
38F566	803BC	.11	.07	.07
38F567	777	.02	.01	.01

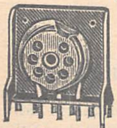
(E) RETMA SADDLE TYPE TUBE SOCKETS†

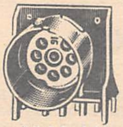
Bottom mtg. saddle type sockets with Bakelite insulation.

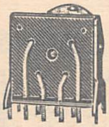
No.	Type	Pins	Ctr.	Hole	1-499	500-1499	1500-4999
38F744	100	7	⅞"	9/16"	.08	.05	.05
38F745	270	9	1⅛"	1 1/16"	.09	.06	.05

†AS AVAILABLE, ALL SOCKETS WILL BE SHIPPED IN E-Z MATE STYLE AT NO EXTRA CHARGE.

PRINTED CIRCUIT 90° SOCKETS


7-pin plain


7-pin shielded base

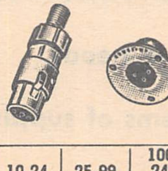

7-pin rear view

Reliable 7 and 9-pin sockets that permit installation of tubes parallel to printed circuit chassis. Conserve space where height is limited. Special brackets can't loosen from chassis, and low center of gravity helps eliminate damage from shock and vibration. Component design and materials are similar to specification JAN-S-28A „ . . all metal parts withstand standard salt spray test. Sockets are designed to mount on board 1/16" thick. Voltage rating is 660V, and all contacts are rated at 1 amp. Mica filled insulation. Shipping weight each, 4 ounces.

Stock No.	Type	1-99	100-499	500-999
39F1588	4006-3-EG-1/16"	1.96	1.22	1.04
39F1590	4007-3-EG-1/16"	2.52	1.57	1.34
39F1592	4008-3-EG-1/16"	2.00	1.25	1.07
39F1593	4009-3-EG-1/16"	1.83	1.69	1.45

TYPE "EL" AUDIO PLUGS AND RECEPTACLES

Silver plated brass contacts with silver plated brass spring added to the female contacts. Contact tails have tinned solder cups. Grounding contact engages first, breaks last. Latch lock device provides locking of a mated pair. Key groove polarization. Test voltage: 1600 VAC. Service voltage: 300 VAC. All have 3 contacts. M-male, F-female.



Stk. No.	Type No.	Description	1-9	10-24	25-99	100-249
39F1684	EL2213-3	Panel-M	.72	.65	.60	.48
39F1685	EL2214-3	Cable-F	.93	.84	.78	.62
39F1686	EL2215-3	Panel-F	.93	.84	.78	.62
39F1687	EL2216-3	Cable-M	.90	.81	.75	.60

JAN-TYPE MINIATURE SHIELDS

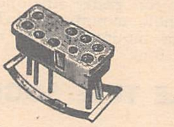
Built to meet JAN specifications! Jan type nos. beginning with TS102 for 7-pin min. tubes, TS103 for 9-pin tubes. 2 oz.

No.	JAN No.	Length	1-499	500-1499	1500-4999
38F788	TS102U01	1⅜"	.12	.08	.06
38F789	TS102U02	1¾"	.12	.08	.07
38F790	TS102U03	2¼"	.14	.09	.08
38F791	TS103U01	1½"	.13	.09	.07
38F792	TS103U02	1 15/16"	.14	.09	.07
38F793	TS103U03	2⅜"	.17	.11	.09

(F) CORRUGATED HEAT-REDUCING INSERTS

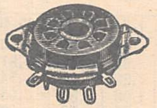
No.	Type	Use with JAN SHIELD	1-499	500-1499	1500-4999
38F694	929	TS 102U01	.11	.09	.08
38F697	932	TS 103U01	.14	.11	.10
38F698	933	TS 103U02	.16	.13	.12

SUB-MINIATURE RELAY SOCKET



Sub-miniature relay socket designed for use with sub-miniature relays. Current rating—1 amp. Withstanding voltage 1200 V. R.M.S. Contact resistance—.03 ohm max. Insulation resistance—1000 meg. Shpg. wt. 3 oz.

Stk. No.	Type	Description	1-499	500-1499	1500 4999
39F1682	887BC	Socket	.29	.18	.16
39F1683	886	Retainer	.29	.18	.16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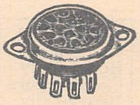
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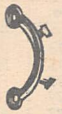

I

(G) MILITARY OCTAL SOCKET

Bottom with tapped bushing, ground lugs. Mica insulator. Shpg. wt. 4 oz.

No.	Type	JAN No.	1-499	500-1499	1500-4999
38F574	336 PHSPTD	TS101PO2	.35	.22	.19

(H) 14-PIN MINIATURE RMA SADDLE TYPE TUBE SOCKET

Top mounting, mica insulator, prosphor bronze, silver plated tin-dipped contact, per TS1405PO1.

No.	Type	1-499	500-1499	1500-4999
38F576	423PHSPTD .125	.33	.21	.18

(I) 7- AND 9-PIN STRAP NUT

Cadmium plated finish.

No.	Type	Material	Use	1-499	500-1499	1500-4999
38F578	288	Brass	7 pin	.06	.04	.03
38F579	289	Steel	7 pin	.05	.03	.03
38F581	291	Steel	9 pin	.05	.03	.03

MINIATURE SOCKETS

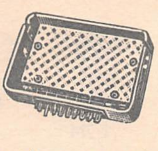
Standard top-mounting sockets built to MIL specs. Mica filled except * ceramic. TS102 types are 7-pin, TS103 are 9-pin. 4 oz.

No.	JAN No.	Centers	1-499	500-1499	1500-4999
38F794	TS102P01†	⅞"	.16	.10	.09
38F786	TS102C01*	⅞"	.23	.14	.13
38F795	TS103P01†	1⅛"	.18	.11	.10
38F787	TS103C01*	1⅛"	.25	.16	.14
39F1678	TS102C03	.125"	.21	.14	.12
39F1679	TS102P03†	.125"	.14	.09	.08
39F1680	TS103C03	.125"	.25	.15	.14
39F1681	TS103P03†	.125"	.15	.09	.08

†New Elco E-Z Mate sockets to MIL-S-12883A. As available, all sockets will be shipped in E-Z Mate style with positioning key at top of socket permitting tube to slide until insertion point is reached. Ideal for blind and inaccessible locations. Prevents damage to tube pins.

ELECTRONIC EQUIPMENT

MULTI-USE PLUG-IN KIT

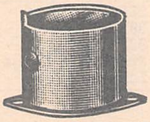


MULTI-USE PLUG-KITS enable the user to readily wire and package a wide variety of circuits. Consists of an aluminum case with mounted 11 pin octal plug, mounted noval sockets, shield bases, 2 Zip wiring decks plus equal number of 7 pin miniature sockets, shield bases and adapter mounting rings, plug buttons to close unused socket holes, one extra unpunched base with spacers and screws for mounting larger plugs, one extra Zip wiring deck. Overall ht.: 3".

Stock No.	Type	Sockets	Base Dimen.	Term.	1-19	20-99	100-199	200-999
38F415	4-EK3	3N&3M	1⅝x3⅞"	22	5.97	5.37	5.01	4.00
38F416	5-E2K3	4N&4M	1 11/16x4 13/16"	30	6.57	5.91	5.52	4.40
38F399	4-HK3	....	1x4"	....	6.84	6.16	5.85	4.58
38F398	5-HK3	....	1x5"	....	7.04	6.34	5.91	4.72

Many other case sizes and structures are obtainable.

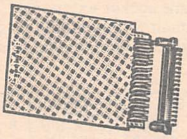
TUBE BASE SHIELDS



TUBE BASE SHIELDS are intended to be mounted above the socket as a base for convenient bayonet type tube shields.

Stock No.	Type	Description	1-19	20-99	100-199	200-999
38F607	S7	7 Pin Steel Cad. Plated	.09	.08	.076	.06
38F608	S9	9 Pin Steel Cad. Plated	.09	.08	.076	.06

PATCH BOARDS



Made of epoxy paper, ivory color, .093" thick. 10 rows of 10 receptacles with .265" centers. Beryllium copper, silver plated with gold flash terminals. Hole dia. 0.094± .002. Four Z-type steel cadmium plated mounting brackets and screws and nuts furnished for flush mounting. Back board drilled for screws. Max. current 5 amps. Contact res. less than .001 ohms. Breakdown voltage: 1000 V. AC or DC. Wt., 4 oz.

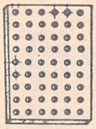
Stock No.	Type	Size	1-19	20-99	100-199	200-999
38F488	PB1010	3¼x3¼x⅞"	10.75	9.68	9.03	7.20

PATCH CORDS FOR ABOVE

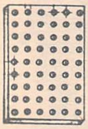
Stock No.	Type	Size	Color	1-19	20-99	100-199	200-999
28F479	K2.06	6"	Black	*2.00	*1.80	*1.68	*1.34
38F480	K2.09	9"	Yellow	*2.25	*2.03	*1.89	*1.51
38F481	K2.15	15"	Yellow	*2.50	*2.25	*2.10	*1.68

*In bundles of 25.

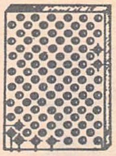
VECTORBORD



A & AA



F



G

VECTORBORD—Pre-punched Terminal Board provides an overall grid of pre-punched holes especially useful for breadboarding as well as production. Every pattern is available in 1/16" thick panels. The holes accommodate a variety of standard turned terminals as well as push-in terminals. Fig. A and AA have 0.093" holes on .265" centers. Fig. F; 0.062" holes on 0.2" centers. Fig. G; 0.062" holes on alternate intersections of 0.1" grid. Pattern H (not shown) has 0.062" holes on 0.1 centers. #4 self-tap screws can be engaged in the .093" holes or #2 self-tap in the .062" diameter holes. The boards may be broken off as desired along the hole lines when it is inconvenient to saw. Pattern G is especially useful for sub-miniature circuitry using transistors and small diodes. The holes on alternate intersections of a standard 0.1" grid make it possible to mount most "top hat" types of transistors, base down, by passing the leads directly through the holes which are in alignment with the leads. *2 oz. copper, 1 side. **2 oz. copper, 2 sides.

Stock No.	Type	Pattern	Size	Holes	1-19	20-99	100-199	200-999
			Epoxy Paper					
38F423	64AA18EP	AA	3/32x4 13/16x17"	64x18	2.73	2.46	2.29	1.83
38F425	32AA18EB	AA	3/32x4 13/16x8½"	32x18	1.40	1.26	1.18	.94
38F426	85F24EP	F	1/16x4 13/16x17"	85x23	2.06	1.85	1.73	1.38
38F427	85G24EP	G	1/16x4 13/16x17"	2(85x23)	2.06	1.85	1.73	1.38
38F459	85G42EP	G	1/16x17x8 7/16"		3.17	2.86	2.66	2.12
			XXXP Phenolic					
38F422	64AA18	AA	3/32x4 13/16x17"	64x18	1.60	1.44	1.34	1.07
38F424	32AA18	AA	3/32x4 13/16x8½"	32x18	.84	.76	.71	.56
38F420	32AA9	AA	3/32x2 7/16x8½"	32x 9	.60	.54	.50	.40
38F421	64A18	A	1/16x4 13/16x17"	64x32	1.25	1.13	1.05	.84
38F460	64AA32	AA	3/32x17x8½"	64x32	2.45	2.21	2.08	1.64
38F393	42F22C1*	F	8½x4½x1/16"	42x22	1.05	.95	.88	.70
38F392	42F22C2**	F	8½x4½x1/16"		1.32	1.19	1.11	.88
			Epoxy Glass					
38F463	64A18WE	A	1/16x4 13/16x17"	64x18	3.72	3.35	3.12	2.49
38F391	42G22WEC1*	G	8½x4½x1/16"	2(42x22)	2.55	2.30	2.17	1.71
38F390	42G22WEC2**	G	8½x4½x1/16"	2(42x22)	2.60	2.34	2.18	1.74
38F464	85G24WE	G	1/16x4 13/16x17"	2(85x23)	3.81	3.43	3.20	2.55
38F389	170H48WE	H	17x4⅘x1/16"	170x47	4.07	3.67	3.42	2.73

PLUGBORDS AND RECEPTACLES

Use Plugbords for

- **Plug-In Test Circuits**
- **Prototype of To-Be-Printed Circuit Cards**
- **Modular Plug-In Cards**

Standard Plugbords made from 1/16" thick Epoxy Paper material or Epoxy Glass (WE) with all-over grid of .062" holes on alternate .1" centers. Locate Vector T-28 Push-In Miniclip Terminals and eyelets where required and lay out components to exactly duplicate printed card, if desired.

Elco Varicon contacts come attached to board or etched connector supplied on 838A and 838. Different sizes, hole patterns and materials readily available to order.

PLUGBOARDS

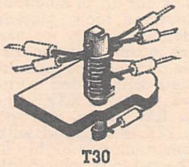
Stock No.	Type	Size	Contact	1-19	20-99	100-199	200-999
38F471	837	3 x4½"	12 Varicon	2.13	1.96	1.79	1.43
38F472	812	4½x6½"	16 Varicon	2.73	2.46	2.29	1.83
38F482	837WE	3 x4½"	12 Varicon	2.36	2.12	1.98	1.58
38F483	812WE	4½x6½"	16 Varicon	3.23	2.91	2.71	2.16
38F484	838A	4½x6½"	22 Etched	2.57	2.31	2.16	1.72
38F485	838	4½x6½"	43 Etched	3.34	3.01	2.81	2.24
38F395	848WE	4½x6½"	35 Varicon	4.41	3.97	3.70	2.95

RECEPTACLES

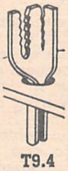
Stock No.	Type	Size	Contact	1-19	20-99	100-199	200-999
38F397	R612-1		12	1.61	1.45	1.35	1.08
38F396	R616-1		16	2.04	1.84	1.71	1.37
38F487	R644*		43	2.62	2.36	2.20	1.76
38F394	R635		35	6.93	6.24	5.80	4.64

*For all etched plug bords; 44 independent contacts (2 rows).

VECTOR PUSH-IN AND SOLDERLESS SPRING CLIP TERMINALS



T30



T9.4

VECTOR PUSH-IN TERMINALS simplify breadboarding. Push them into .093" or .062" holes in 1/16" or 3/32" VECTORBORD panels and they hold without staking. (May be staked if desired for maximum holding.) Each terminal has serrated slots to grip inserted wires. Large slot accommodates most resistor and capacitor wires, small slot holds transistor leads. The T9.6 also has a special slot to accommodate diodes. Both types have thru-shank construction enabling riser wires to be inserted down through center of terminal and slotted shank-end for additional connections. All fit .093" hole except * .062".

SOLDERLESS SPRINGCLIP TERMINALS—Reliable, truly solderless terminal for experimental circuitry. Holds up to six leads without soldering. May be used over and over—permits reusing expensive components. All fit .093" hole.

Fused tin plated push-in type. T9.4 Brass, T9.6 Heattreated Beryllium Copper.

Stk. No.	Type	Bags of 100				Bags of 1000		
		1-19	20-99	100-199	200-999	1-4	5-24	25-49
38F475	T9.4	1.25	1.13	1.05	.90	8.90	7.48	7.11
38F458	T9.6	2.10	1.89	1.76	1.41	13.69	12.32	11.50

Fused tin plated push-in type. Heat treated Beryllium Copper.

Stk. No.	Type	Bags of 100			Bags of 1000		
		1-4	5-24	25-49	1-4	5-24	25-49
38F465	T28*	1.55	1.40	1.30	11.00	9.90	9.24

Solderless spring clip type. Half Hard Brass, post and washer, steel spring, stearic acid dip. Type T30 silver plated. T30N nickel plated.

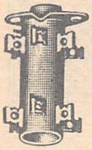
Stk. No.	Type	Bags of 10				Bags of 100			
		1-19	20-99	100-199	200-999	1-19	20-99	100-199	200-999
38F468	T30	1.20	1.08	1.01	.90	8.95	8.06	7.52	6.00
38F388	T30N	1.15	1.04	.97	.87	8.45	7.61	7.10	5.66

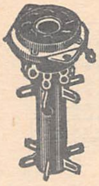
Insertion Tool.

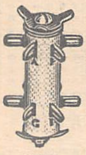
Stk. No.	Type	Use	1-19	20-99	100-199	200-999
38F469	P-91	For T28	.50	.45	.42	.34
38F470	P-92A	For T30	.75	.68	.63	.50

Vector SOCKETS

SOCKET TURRETS


6-A-12T


10-0-12T


6-12

Sockets will fit either 3-in-line or "top-hat" transistor pins. Saddle* has 2 ground lugs and tapped 4/40 mounting holes spaced ¾". Socket requires 13/32" dia. hole. Those without saddle** have 4/40 nut. Turret post is grade XXXP phenolic. Casting is mica filled phenolic. Terminals are brass with fused tin finish. Avg. shipping weight, 1 oz.

Stk. No.	Type	Size	1-19	20-99	100-199	200-999
38F437	6-A-12T*	⅞x7/32x1½"	1.06	.95	.89	.71
38F438	8-A-12T*	1⅜x7/32x2"	1.08	.97	.91	.72
38F439	7-A-12T-440**	⅞x15/32x1¾"	1.04	.94	.87	.70

TUBE SOCKET-TURRETS

Phenolic cylinders bonded to sockets. Mica-filled. Components mount on form. Coils can be wound on turret and iron cores inserted. Turrets are ½" dia. Octals mount in 1" hole; novals, ¾" hole, min., ⅝" hole. Wt., 3 oz. For octal sockets. Have 9 or 12 terminals in 2 rings 1⅜" apart.

2½" Turrets

No.	Type	Socket	1-19	20-99	100-199	200-999
38F600	10-O-9T	Octal	.63	.57	.53	.42
38F429	10-O-12T	Octal	.66	.59	.55	.44
38F435	10-MB-12T	7-pin	.81	.73	.68	.54
38F436	10-NB-12	9-pin	.81	.73	.68	.54

2" Turrets. 9 or 12 terminals in 2 rings 1" apart.

No.	Type	Socket	1-19	20-99	100-199	200-999
38F601	8-O-9T	Octal	.60	.54	.50	.40
38F602	8-M-9T	7-pin miniature	.69	.62	.58	.46
38F603	8-N-9T	9-pin-noval	.69	.62	.58	.46
38F430	8-M-12T	7-pin	.72	.65	.60	.48
38F431	8-N-12T	9-pin	.72	.65	.60	.48
38F428	8-O-12T	Octal	.63	.57	.53	.42

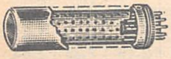
1½" Turrets. Have 6 terminals in 1 ring.

No.	Type	Socket	1-19	20-99	100-199	200-999
38F604	6-O-6T	Octal	.54	.49	.45	.36
38F605	6-M-6T	7-pin miniature	.60	.54	.50	.40
38F606	6-N-6T	9-pin noval	.63	.57	.53	.42

Terminal Turrets. Bolt to chassis.

No.	Type	Socket	1-19	20-99	100-199	200-999
38F432	6-12	tubular terminal	.45	.41	.38	.30
38F433	8-12	tubular terminal	.48	.43	.40	.32
38F434	10-12	tubular terminal	.51	.46	.43	.34

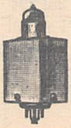
TRANSISTOR PLUG-IN UNITS



Round-case plug-ins. Available in 3 diameters: 1.25" for octal-type plugs; ¾" for noval plugs and ⅝" for 7 pin miniature plug. —4 in Type No. indicates vertical terminal board inside case mounted to plug. Shpg. wt., 1 oz.

Stk. No.	Type	Dia. x L.	1-19	20-99	100-199	200-999
38F453	G2-10	1.25x2½"	.97	.87	.81	.65
38F455	G2.1-8N	¾x2"	2.04	1.84	1.71	1.37
38F454	G2.1-8	¾x2"	1.35	1.22	1.13	.90
38F456	G2.2-8	⅝x2"	1.21	1.09	1.02	.81
38F476	G2-10-4	1.25x2½"	1.85	1.67	1.55	1.24
38F477	G2.1-8-4	¾x2"	1.90	1.71	1.60	1.27
38F478	G2.2-8-4	⅝x2"	1.88	1.70	1.58	1.26

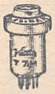
MODULAR PLUG-IN CASES

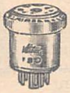


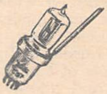
Consist of tube socket, tubular terminal post, octal plug and shield can. Can be made into a variety of plug-in circuits with short leads for instant replacement. Tube shield base with bayonet lock included. *7-pin miniature. †9-pin noval. §Has two 9-pin noval sockets. C10MM, C10NN, and C12NN are 2-tube types. Wt., 6 oz.

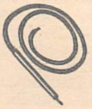
Stk. No.	Type	Size	1-19	20-99	100-199	200-999
38F440	B-8	1⅜x2x1⅜"	.99	.89	.83	.66
38F442	†B-8-N	1⅜x2x1.37"	1.91	1.72	1.60	1.28
38F441	B-10	1⅜x2½x1⅜"	1.03	.93	.87	.69
38F609	*B-10-M	1⅜x2½x1⅜"	1.91	1.72	1.60	1.28
38F610	†B-10-N	1⅜x2½x1⅜"	1.95	1.76	1.64	1.31
38F443	B-10-T	1⅜x2½x1⅜"	1.65	1.49	1.39	1.11
38F444	†B-12-N	1⅜x3x1.37"	1.98	1.78	1.66	1.33
38F445	C-10	2x2.5x2½"	1.16	1.04	.97	.78
38F613	*C-10-M	2x2½x2"	2.21	1.99	1.86	1.25
38F614	*C-10-MM	2x2½x2"	2.84	2.56	2.39	1.90
38F611	†C-10-N	2x2½x2"	2.24	2.02	1.88	1.50
38F612	§C-10-NN	2x2½x2"	3.01	2.71	2.53	2.02
38F446	C-10-T	2x2½x2"	1.85	1.67	1.55	1.24
38F447	C-12	2x3x2"	1.20	1.08	1.01	.80
38F449	*C-12-M	2x3x2"	2.24	2.02	1.88	1.50
38F451	C-12-MM	2x3x2"	2.87	2.58	2.41	1.50
38F450	†C-12-N	2x3x2"	2.27	2.04	1.91	1.52
38F452	§C-12-NN	2x3x2"	3.04	2.74	2.55	2.04
38F448	C-12-T	2x3x2"	1.88	1.69	1.58	1.26

TUBE SOCKET TEST ADAPTER KIT


T-7M


T-8-O


T-9-N

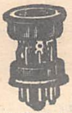

PI

Tube Socket Test Adapters are inserted between the socket and the tube and provide test tab elements for making voltage, resistance, and wave form measurements from tube side of chassis. Connections are wired straight through from plug to socket. Beryllium copper socket contacts for long-life—molded tan phenolic bodies. Shpg. wt., 3 oz.
*Shpg. wt., ½ lb.

Stock No.	Type	Socket	1-19	20-99	100-199	200-999
38F617	T-7-M	7 Pin Miniature	1.65	1.49	1.39	1.11
38F616	T-8-O	8 Pin Octal	1.60	1.44	1.34	1.07
38F615	T-9-N	9 Pin Octal	1.85	1.67	1.55	1.24
38F466	Pl Probe	Probe for above	.39	.35	.33	.26
38F618	T-789	Set of above in case*	5.90	5.31	4.96	3.95

ADAPTERS AND EXTENDERS

Basic plug and socket structure used in standard test adapters. Circuits can readily be opened for current measurements. or cross-connected in many ways for experimental purposes. Models 1262, 1263, and 1264 are socket extenders. These shift wear from the socket itself to the extender. Sockets have highest grade beryllium copper contacts Av. shipping wt., 2 oz.


TX-8-0

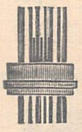
ADAPTERS

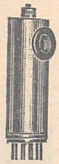
Stk. No.	Type	Socket	1-19	20-99	100-199	200-999
38F400	TX-8-0	8 pin octal	1.30	1.17	1.09	.87
38F401	TX-9N	9 pin noval	.85	.77	.71	.57
38F402	TX-7M	7 pin min.	.80	.72	.67	.54

EXTENDERS

Stk. No.	Type	Socket	1-19	20-99	100-199	200-999
38F404	1262	8 pin octal	1.90	1.71	1.60	1.27
38F405	1263	9 pin noval	1.90	1.71	1.60	1.27
38F406	1264	7 pin min.	1.90	1.71	1.60	1.27

TUBE BASE AND CABLE CONNECTOR PLUGS


P9


P7C

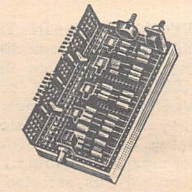
Tube base plugs are designed to fit 7-pin min. and 9-pin noval sockets. Castings are mica-filled phenolic. Pins are of phosphor bronze and cadmium plated. Weight. 1 oz.

Stk. No.	Type	For Socket	1-19	20-99	100-199	200-999
38F407	P7	7-pin min.	.47	.42	.39	.31
38F408	P7A	7-pin min.	.47	.42	.39	.31
38F411	P9	9-pin noval	.52	.47	.44	.35
38F412	P9A	9-pin noval	.52	.47	.44	.35

Cable connector plugs are for connections with miniature and noval tube sockets. Wt., 1 oz.

Stk. No.	Type	Outlet	Pins	1-19	20-99	100-199	200-999
38F409	P7C	Side	7	1.08	.97	.91	.72
38F410	P7D	End	7	1.50	1.35	1.26	1.01
38F413	P9C	Side	9	1.20	1.08	1.01	.80
38F414	P9D	End	9	1.59	1.43	1.34	1.07

CHASSIS KITS



Provide quick set up of electronic circuitry with simple hand tools. Models 20X and 21X are intended mainly for mockups, yet the structure is also suitable for more permanent uses and may be mounted on racks or in cabinets with added adapter plates. Wiring deck made of XXXP Phenolic 3/32" thick. Holes .093" in dia. and spaced 0.265" on centers. 22X is supplied with transistor sockets. Construction is highly flexible and can easily be cut to accommodate other sizes than those supplied. 4 aluminum channels along with wiring deck. Push-in terminals. Shpg. wt., 24 oz. Kit 25X is a solderless circuit Set-up System for rapid testing of all electric circuits including transistor and tubes. Solderless Springclip Terminals hold up to six leads. Contact resistance less than .002 ohms. Deck made of XXXP Phenolic 3/32" thick with holes .093" in dia. and spaced 0.265" on centers. Mounted on wooden frame. Shpg. wt., 2 lbs.

Stk. No.	Type	Size	1-19	20-99	100-199	200-999
38F417	20X	4¾x8½x3/32"	6.25	5.63	5.25	4.19
38F418	21X	4¾x17x3/32"	15.25	13.73	12.81	10.22
38F419	22X	8½x4¾x3/32"	10.50	9.45	8.82	7.04
38F475	25X	8½x17x3/32"	19.50	17.55	16.38	13.07

CIRCUIT STRUCTURE LAB

CIRCUIT BUILDER

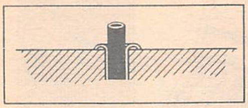


Figure 1

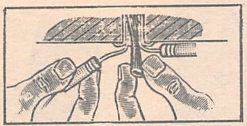


Figure 2

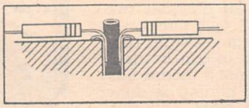
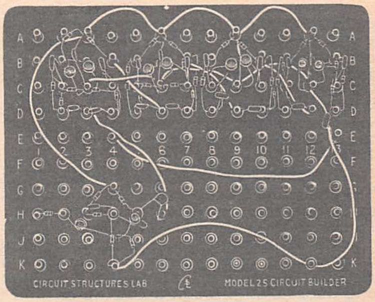


Figure 3



HOW THE CSL CIRCUIT BUILDER IS USED

Circuits are assembled by inserting component leads and jumper wires into individual junction cells. Each cell is an electrically isolated contact point for wires inserted into it.

Figure 1. Cell consists of a gold plated eyelet and pure BUNA rubber cord.

Figure 2. Pull cord up and the wire slips easily into the eyelet.

Figure 3. When released rubber core grips wire or component leads, pressing them firmly against gold-plated surface. Electrical contact established, essential zero resistance.

A brand new concept in circuit breadboarding. Eliminates soldering . . . allows components to be used over and over again in experimental circuits. Rows of junction cells are keyed to facilitate instruction and record keeping. Schematic drawings may be translated to Circuit Builder format with pre-printed Circuit Pads or mimeographed sheets. Transfer of the breadboard circuit to CSL Proto-Card is easy, quick . . . only a minimum of jumper wire is needed. Proto-Cards can be used to mount functional circuits for first article or proto-type electronic equipment. Proto-Cards and accessories are quality printed circuit mounting hardware. There are 4 types:

THE ALL PURPOS ETRANSISTOR CARD: 5 power bos lines and isolated transistor and component pads. Has 8 collector output lines with printed leads to connector pins. 15 connector lines are terminated at eyelet to provide maximum flexibility for input wiring.

THE DIGITAL TRANSISTOR CARD: 4 power lines, 8 collector output lines and 16 input lines with printed leads to connector pins. 8 transistor emitters are bussed to a common line.

THE LOGIC CARD: Provides pads for mounting up to 100 components in any combination of logic networks.

THE TRANSISTOR-LOGIC CARD: Combines the All-Purpose Transistor Card and Logic Card. Provides pads for 4 transistors and up to 48 additional components in associated logic circuits. Proto-Card printed wiring is designed so that components themselves provide most of the circuit connections.

PATCH PANELS

Stock No.	Type	Description	NET
57F516	84100	Intercard Patch Panel (2 card capacity)	37.50
57F517	84101	Inter Assembly Patch Panel (8 cards or 4 assemblies)	150.00

PATCH CORDS

Stock No.	Type	Description	NET
57F518	84305	Assortment of 25	6.75
57F519	84306	Assortment of 50	12.50

PROTO-CHASSIS

Stock No.	Type	Description	NET
57F530	85211	Instrument Proto-Chassis, 10 cards	24.50
57F531	85212	Rack-Mounted Proto-Chassis, 22 cards	28.50
57F532	85213	Rack-Mounted Proto-Chassis, 44 cards	32.50
57F533	85214	Rack-Mounted Proto-Card Frame. 22 cards	18.50
57F535	85311	Enclosure for 10-Card Proto Chassis	10.00
57F526	86201	Pairing Hardware, including 2 connectors, per set	6.75
57F537	86202	Pairing Hardware for Proto-Cards, less connectors.	1.00

CIRCUIT BUILDER

Stock No.	Type	Description	NET
57F521	83001	Model 23 Circuit Builder 108 Junction Cells (9½x12½")	14.95
57F522	83002	Model 24 Circuit Builder 336 Junction Cells (16½x21½")	39.50
57F538	87000	Model 25 Circuit Builder 130 Junction Cells (8½x11x1")	22.65

CIRCUIT BUILDER ACCESSORIES

Stock No.	Type	Description	NET
57F523	84001	7-Pin Socket Mount	1.25
57F524	84002	8-Pin Socket Mount	
57F525	84003	9-Pin Socket Mount	
57F526	84004	Transistor Socket Mount	
57F527	84005	Model 23 Circuit Pad (50 sheets)	1.00
57F528	84006	Model 24 Circuit Pad (50 sheets)	
57F539	87001	50 Sheets for Logic Proto-Card	

PROTO-CARD KIT

Stock No.	Type	Description	NET
57F520	12	Consists of 83201 All-purpose Transistor Card, 83302 Transistor Logic Card, 84100 Intercard Patch Panel, 84305 Patch Cord Assortment, Instruction Sheet	57.50

PROTO-CARDS

Stock No.	Type	Desoription	NET
57F500	83201	All Purpose Transistor Card, L.H.	7.50
57F501	83202	Transistor Logic Card, L.H.	
57F502	83203	Logic Card, L.H.	
57F503	83204	Digital Transistor Card, L.H.	
57F504	83301	All-Purpose Transistor Card, R.H.	
57F505	83302	Transistor Logic Card, R.H.	
57F506	83303	Logic Card, L.H.	
57F507	83304	Digital Transistor Card, R.H.	

CIRCUIT AND DIAGRAM PADS (25 sheets)

Stock No.	Type	Desoription	NET
57F508	83201-P	For All-Purpose Transistor Proto-Card, L.H.	1.00
57F509	83202-P	For Transistor Logic Proto-Card, L.H.	
57F510	83203-P	For Logic Proto-Card, L.H.	
57F511	83204-P	For Digital Transistor Proto-Card, L.H.	
57F512	83301-P	For All-Purpose Transistor Proto-Card, R.H.	
57F513	83302-P	For Transistor Logic Proto-Card, R.H.	

CIRCUIT CARD DIAGRAM PADS (25 sheets)

Stock No.	Type	Desoription	NET
57F514	83303-PD	For Logic Proto-Card, R.H.	1.00
57F515	83304-PD	For Digital Transistor Proto-Card, R.H.	1.00

- **NEWARK KEEPS PACE with current dynamic progress in research and development and leads in procuring and supplying the product you need.**
- **NEWARK SERVICE is the swiftest, most efficient in the industry. It cuts your lead time to the absolute minimum.**
- **NEWARK GOES ALL THE WAY for your order, recognizing your right to demand service.**
- **YOUR ORDER is filled the same day it is received.**
- **EMERGENCY REQUIREMENTS are sped to you within minutes.**
- **PHONE, WRITE, WIRE for the electronics equipment you need.**

COMPONENTS AND PRINTED CIRCUIT KITS

CORNING

NEW CORNING FOTOCERAM® GRID BOARD KITS—Fig. A

Contains all the materials necessary to build a printed circuit of your own design in your own lab. A complete kit provides two copper plated FOTOCERAM® grid boards, 3x5", 1/16" thick; two packets of chemical etchant, a ball point chemical resistant pen, and resistant tape. The plastic box the kit comes in can be used as an etching tray. The glass ceramic FOTOCERAM® board has 0.052" holes spaced 0.1" apart on centers. Hole plating is done with the same material used for circuit-run conductors. This provides exceptional thermal and electrical conductivity and negates the need for eyelets. Shpg. wt., 1½ lbs.

19F557. NET........**8.95**

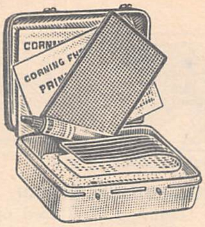
CORNING FOTOCERAM® GRID BOARDS—Fig. C

Sets the stage for top quality printed circuits for prototype work in 15 minutes! The base material, non-organic glass-ceramic Fotoceram®, is used for other high quality printed circuit applications where high strength, high temperature resistance, nonflammability and dimensional stability are required. These qualities are further augmented with high quality metallizing and unexcelled through-hole plating. Unit is completely copper clad before processing. Copper plated over base electroless copper . . . no adhesives used. Grid pattern: standard component mtg. holes on 0.1" centers. Hole diameters: .052" ± .005".

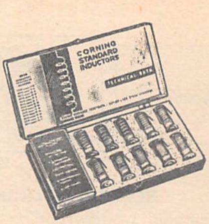
Stock No.	Size	1-24	25-99	100-249
19F1059	3 x 5"	3.95	3.50	3.25
19F1060	6 x 8"	11.25	10.25	9.25
19F1061	9 x 12"	24.75	22.50	19.75

RESIST TAPE. For Corning Fotoceram® Printed Circuit Grid Boards above. Chemical resistant vinyl tape in package of 10 strips 3/8"x9", plus 40 circles 3/16" diameter.

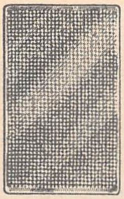
Stock No.	Description	1-24	25-99	100 Up
19F555	Pkg. of 10	.75	.60	.50



A.



B.



C.

CORNING STANDARD INDUCTOR KIT—Fig. B

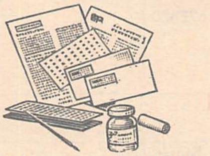
Determine the exact inductance values you need quickly . . . inexpensively! Kit consists of 10 std. value glass inductors that can be modified to specific odd values with 4 different core types: red dot, 5.0 permeability; blue dot, 9.2 permeability; ¼" brass and 3/32" brass. 10 standard value metallized glass inductances range from .05 uh to 1.30 uh. Operating temperature range: —50°C to +125°C. Temperature coefficient zero to plus 20 ppm/°C. Tolerance ± 10%. Electrical Characteristics: Inductance range .05 to 2 microhenries, "Q" Factor 120 to 200, Max. DC Current Capacity 1 ampere, Power Factor .27 at 1 mc and 20°C, Dielectric Constant 4.7 at 1 mc and 20°C. Mechanical Characteristics: Coil Form OD .0460", ± 0.10", Coil Form ID .375" minimum, Coil Form Length 1.250", Mounting 6/32 screw in skirted D Flat Flange, Depth Behind Chassis 19/32, ± 1/32.

19F556. Complete Kit, **NET**........**24.95**

KEPRO

PRINTED CIRCUIT & NAMEPLATE KITS

STANDARD KIT



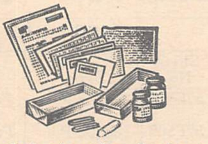
Type S-101A. An etching kit designed to custom fabricate your own circuit board. A liquid or tape resistant is manually applied to the XXXP Phenolic copper clad sheet in the desired pattern, then etched. A perforated copper clad panel is supplied with this kit to speed component mounting. Contents: 2 sheets 3x6x1/16" copper clad phenolic, unsensitized. 1 sheet 3x6x1/16" perforated copper clad phenolic, unsensitized. 1-Bottle Etching Resistant. 1-Package assorted Tapes and Dots. 1-Bottle Etching Solution. 1-Plastic Etching Tray. 1-Brush. 1-Cleaning Pad. 1-Instruction and Data Sheet. Shpg. wt., 1½ lbs.

19F2000. NET........**3.95**

Type S-101A-G. Identical to S-101A Kit except, base material is G-10 Glass Epoxy. Copper Clad.

19F2001. NET........5.25

PROFESSIONAL KIT



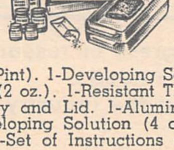
Type P-101A. An etching kit designed to custom fabricate your own circuit board utilizing a photo engraving process. A sensitized sheet of XXXP Phenolic copper clad is exposed through your prepared negative, then developed and etched. Contents: 2 sheets 3x6x1/16" photosensitized copper clad phenolic, 1 sheet 3x3x1/16" photosensitized copper clad phenolic. 3 sheets Mech. Neg. 1-Print Frame Glass. 2-Print Frame Clamps. 1-Bottle Developer. 2-Bottles Etching Solution. 1-Aluminum Developing Tray. 1-Plastic Etching Tray. 1-Cleaning Pad. Shpg. wt., 2½ lbs.

19F2002. NET........**5.85**

Type P-101A-G. As above except base is G-10 Glass Epoxy. Copper Clad.

19F2003. NET........7.40

ETCHED CIRCUIT LAB



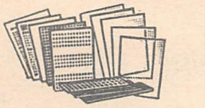
Type L-505A. A complete lab which contains all materials required for circuit board development. Uses high quality photo processing. Contains: 1-8½x12 Developing Tray. 1-8½x12 Etching Tray. 1-Safelight.. 1-Printing Frame. 1-Photo Flood Lamp. 1-KEPRO Photo Layout Kit (PL-2A). 1-40x10 Mech. Neg. 1-Etching Solution (1 Pint). 1-Developing Solution (1 Pint). 1-Brush. 1-Point Resistant (2 oz.). 1-Resistant Thinner (2 oz.). 1-3⅛x7⅛x1½" Plastic Tray and Lid. 1-Aluminum Tray. 1-Etching Solution (4 oz.). 1-Developing Solution (4 oz.). 1-Eyelet Assortment. 1-Cleaning Pad. 1-Set of Instructions and

19F2004. NET........**34.75**

Type L-505A-G. Identical to L505A, except, base material is G-10 Glass Epoxy, Copper Clad. Shipping weight, 20 pounds.

19F2005. NET........42.95

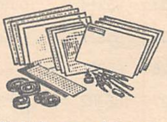
PHOTO LAYOUT KIT



Type PL-2A. A photolayout kit which eliminates inking and lettering by use of mech. neg. materials and pressure-sensitive tapes, lots, letters, and numerals. Contents: 96-¼" Tape Dot Terminations. 108 inches ⅛" Tape Conductor Strips. 216 inches 1/16" Tape Cond. Strips. 1-translucent-type (letters and numerals, assorted sizes) sheet. 1-Acetate Sheet (8"x10"). 1-Mech. Neg. (8"x10"). 2-Sheets of Graph paper, 1/10" and (8"x10"). 1-Instruction and Data Sheet. Shipping weight, 1 lb.

19F2006. NET........**3.95**

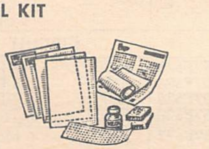
MASTER PHOTO LAYOUT KIT



Type PL-200. This package includes all necessary materials to make Master artwork on stable base drafting films. Utilizes the same time saving methods as the PL-2A. Contents: 2 pcs. 18"x24" Matte Surface Mylar. 2 pcs.—18"x24" Mech. Neg. mylar base. 4 pcs.—17"x21" Graph paper, 1/10" grid. 432-⅛" tape dot termination. 576-¼" tape dot termination. 252-½" dot terminations. 18 yds.-1/16" tape conductor strips. 21 yds.-⅛" tape conductor strips. 18 yds. ¼" tape conductor strips. 1 sheet—8½" x11" translucent-type (letters and numerals, assorted sizes) sheet. 1 btl. —Opaquing fluid. 1-Brush. 1-Bow Compass (with knife cutters). 1-Center Dot Cutter. 1-Tweezers. 1-Cutting Knife Set. 1-Peeling Stylus. 1-Instruction and Data Sheet. Shpg. wt., 11 lbs.

19F2007. NET........**36.30**

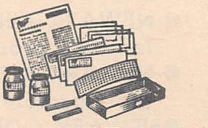
NAMEPLATE & PANEL KIT



Type NP-303A. Kit prepares nameplates by a simple photographic process. Plates are exposed to light source through artwork made from supplied materials. Panels are then dev., no fixing nec. Finished plates are aluminum and contrasting dk. blue. Contents: 2-8"x10" Aluminum Sheets. 1 8"x10" Acetate Sheet. ¼-Sheet translucent-type, 1-8"x10" Print Glass. 1-1 oz. Bottle developer. 2-2x2x¾" Appls. (sponges). 2-(8x10") pressure sensitive adhesive. Shpg. wt. 1 lb. 1 oz.

19F2008. NET........**7.25**

ETCHED ANODIZED NAMEPLATE & PANEL KIT



Type NP-404. Produces etched nameplates and panels using anodized aluminum stock. Processed by exposing, developing, and etching plates. Finished plates are black anodized aluminum and natural color aluminum finish. Contents: 3-3x6" Aluminum Panels. 3-3x6" Acetate Sheets. ¼-Sheet translucent type. 1-Print Glass. 2-3" Clamps. 1-4 oz. Bottle Developer. 1-2 oz Package Etchant. 1-Dev. Tray. 1-Etch Tray. 3-(3x6") pressure sensitive adhesive. 1½ lbs.

19F2009. NET........**6.55**

MALLORY

REPLACEMENT VIBRATORS

The vibrators listed below will cover almost 100% of your replacement needs. Springs are of high grade clock-spring steel, held in permanent alignment by rugged frame. 105 strand lead wire resists vibration—connections stay intact. Has sponge rubber silencer. Mechanical hum and shake are reduced practically to zero by a unique "floating" design that isolates the vibration of the reed element from the case. Hum is squelched to a level never before possible. Wt. 8 oz. **Send for your FREE copy of the Mallory Vibrator Supplement with your next Mallory Vibrator order.**

Stk. No.	Type	Volts	Size	NET
48F514	294	6	1½x2⅞"	**2.94**
48F565	509P	6	1½x2⅞"	**2.94**

ECONOMY 6 VOLT MODEL

Type 4-4. Ideally suited for a variety of applications at a low price. Made of high grade clock-spring steel. Designed for use in 6 volt model cars to replace worn out radio vibrators. Size: 1½" dia. x 2⅝".
48F449. NET **1.51**

ECONOMY 12 VOLT, 4-PIN VIBRATOR

Type 12-4. Designed for use in cars with 12 volt ignition systems. Will replace the standard 4-pin vibrators. Size: 1½" dia. x 2⁹⁄₁₆" long. Wt. 8 oz.
48F451. NET **1.51**

Stk. No.	Type	Volts	Size	NET
48F535	1601	6	1½x2⅝"	**2.82**
48F537	870	6	1½x2⅞"	**2.94**
48F564	G1602	12	1½x2⅝"	**2.82**
48F538	903M	6	1½x2⅞"	**2.16**
48F543	T4003	2	1½x1½x2⅛"	**5.88**
48F559	G1501	12	1½x2⅞"	**4.14**
48F560	1501	6	1½x2⅞"	**3.81**
48F563	1807	6	1½x2⅞"	**4.62**
48F566	1813	6	1½x2⅞"	**4.62**
48F569	G1801	12	1½x2⅞"	**5.13**
48F571	1513	6/12	1½x2⅞"	**4.14**
48F572	1514	6	1½x2⅞"	**4.14**
48F573	G1601	12	1½x2⅝"	**2.82**
48F574	1701	6/12	1½x3"	**5.76**

*In lots of 50 each **4.20**

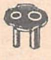
ECONOMY 12 VOLT, 3-PIN VIBRATOR

Type 12-3. Same as model 12-4 except that it replaces standard 3-pin vibrators. Size: 1½" dia. x 2⅝". Wt. 8 oz.
48F450. NET **1.51**

CINCH-JONES

STANDARD BATTERY PLUGS

Here's a list of standard battery plugs to fit a wide variety of your needs. Designed for "A", "B", and other types of batteries.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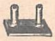
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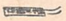
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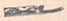
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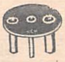
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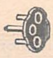
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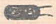
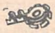
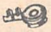

5D

5D2


5M


5F

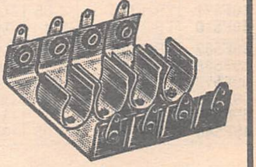
No.	Type	Cont.	Fig.	Used for	1-99	100-up
39F830	5A1	2	A	1½V "A"	.03	.017
39F833	5A4	2	B	6 V "A"	.04	.02
39F834	5A5	3	C	7½V "A"	.06	.028
39F835	5B1A	3	D	45 V "B"	.04	.02
39F839	5M	Snap	E	XX45, 467	.05	.024
39F840	5F	Snap	F	X30, 455	.05	.024

SNAP TYPE CONTACT

Stock No.	Type	Fig.	Used for	1-99	100-up
39F841	5MFA	G	XX45,467 X30,455	**.27**	**.18**
39F829	5D	G	Wired min. 45v. ½" Spacing		
39F842	5D1	G	Wired for slim 67½v, 90v. 1⁵⁄₁₆" Spacing		
39F843	5D2	G	Wired for std. 90v.		

KEYSTONE

SINGLE AND MULTIPLE BATTERY HOLDERS



Perfect for transistor model control, etc. Clips hold battery tight and make good contact. Multiple holders have insulated terminals for each battery for series or parallel combinations. Shpg. wt., 2 oz.

Stock No.	Burgess Battery	Holds	1-19	20-599	600-1000
28F850	7	1	.23	.21	.18
28F851	7	2	.38	.34	.27
28F852	7	4	.64	.57	.46
28F853	Z	1	.23	.21	.18
28F854	Z	2	.38	.34	.27
28F855	Z	4	.64	.57	.46
28F856	1	1	.30	.26	.24
28F857	1	2	.38	.34	.27
28F858	2	1	.30	.26	.24
28F859	2	2	.38	.34	.27
28F860	Y10	1	.21	.20	.16
28F861	Y10	2	.35	.32	.27
28F862	U15	1	.30	.24	.21
28F863	U15	2	.38	.34	.27

SONOTONE

FC-3 RECHARGEABLE BATTERY

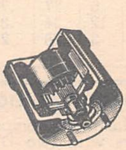
SONOTONE
RECHARGEABLE

Reduces maintenance headaches, by eliminating the use of ordinary, inefficient 1-shot battery cells! Fits any flashlight using 2 "D" size cells. Quick, easy . . . recharge is accomplished by unscrewing cap and inserting prongs into any 110-volt AC outlet. Will give approximately 3 hours of light on a 16-hour charge when used with a PR-4 bulb or the industrial-type PR-6 bulb. Longer charging will increase hours of light. Size 4½"L x 4"dia. Shpg. wt., ¾ lb.
49F395. 1-3 NET EACH **8.50**
4-35 .... 7.80 **36-up** 7.20

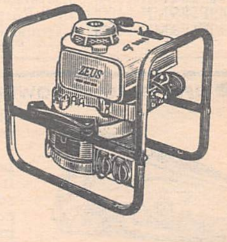
ZEUS

● *NEW* PORTABLE ELECTRIC POWER SERIES ASP-1250

Model ASP-1250. 1250 watt AC continuous duty generator. Gasoline driven, 3 horsepower Briggs and Stratton 4 cycle engine gives easy-to-start, long-life service. Maintenance free operation for all on the job or standby operations. Portable—weighs only 74 lbs. Permanent Alternator magnet eliminates the trouble factors in power generation; no slip rings or commutators, no brushes, no windings, no belts, no voltage regulation, and reduces radio noise to a minimum. Recoil starting for fast operation. Equipted with integral weather proof recepticle, carrying cradle for partability and rubber shock absorbing feet. 1 year warranty. 115 volts, 60 cycles, single phase current at 12 amperes.
92F749. NET **190.88**



Permanent Power Alternator



SAVE WORK! .Make Newark your Complete 1-Point Stock Source!
SAVE TIME! . .At Newark—fast, efficient service always!
SAVE MONEY! Quantity Prices Competitive with Manufacturer!

MALLORY BATTERIES AND FLASHLIGHT

MERCURY BATTERIES

Batteries for use in many portable electronic applications, such as: communication receivers, transceivers and portable test equipment. Extremely dependable at high pressure and high temperatures (up to 250°F).

Stk. No.	Type	Volts	Dia. or LxW (in.)	Ht. (in.)	Std. Pkg.	NET EACH	In Std. Pkg.
49F563	RM-1	1.4	5/8 dia	21/32	40	.42	.38
49F500	RM-1R	1.35	5/8 dia	21/32	40	.48	.44
49F564	RM-1RT	1.35	5/8 dia	21/32	40	.54	.49
49F565	RM-1RT2	1.35	5/8 dia	21/32	40	.58	.53
49F501	RM-3R	1.35	1 dia	21/32	20	.59	.54
49F502	RM-4R	1.35	1.2 dia	21/32	20	.76	.69
49F503	RM-4RT	1.35	1.2 dia	21/32	20	.81	.74
49F504	RM-4Z	1.35	1.2 dia	1/2	24	.64	.58
49F532	RM-12	1.4	5/8 dia	2	10	.82	.75
49F505	RM-12R	1.35	5/8 dia	2	10	.90	.82
49F566	RM-12RT	1.35	5/8 dia	2	10	.96	.87
49F567	RM-12RT2	1.35	5/8 dia	2	10	1.01	.92
49F423	RM-42	1.4	1.2 dia	2 3/8	10	1.87	1.70
49F506	RM-42R	1.35	1.2 dia	2 3/8	10	2.03	1.85
49F507	RM-42RT	1.35	1.2 dia	2 3/8	10	2.07	1.90
49F568	RM-42RT2	1.35	1.2 dia	2 3/8	10	2.14	1.95
49F533	TR-113R	4.05	21/32 dia	53/64	10	1.42	1.29
49F534	TR-114R	5.4	21/32 dia	1 1/16	10	1.65	1.50
49F569	TR-114RT2	5.4	21/32 dia	1 1/16	10	1.76	1.60
49F535	TR-115R	6.75	21/32 dia	1 5/16	10	1.87	1.70
49F570	TR-126	8.4	3/4 dia	2	24	.93	.85
49F508	TR-132R	2.7	21/32 dia	1 5/16	10	1.01	.92
49F536	TR-133	4.2	21/32 dia	2	12	1.10	1.00
49F571	TR-133R	4.05	21/32 dia	2	10	1.30	1.18
49F510	TR-134R	5.4	21/32 dia	2 9/16	10	1.59	1.45
49F537	TR-135R	6.75	21/32 dia	3 1/4	10	2.03	1.85
49F538	TR-136R	8.1	21/32 dia	3 29/32	10	2.40	2.18
49F572	TR-145	7	21/32 dia	1 3/16	10	1.70	1.55
49F511	TR-146	8.4	1x19/32	1 15/16	6	1.12	1.02
49F539	TR-152R	2.7	15/32 dia	1 1/8	20	.86	.78
49F540	TR-153R	4.05	15/32 dia	1 11/16	10	1.12	1.02
49F541	TR-162R	2.7	21/32 dia	7/8	10	.96	.87
49F542	TR-163	4.2	21/32 dia	1 5/16	10	1.12	1.02
49F544	TR-164	5.6	21/32 dia	1 3/4	12	1.26	1.15
49F546	TR-165	7.	21/32 dia	2 3/16	10	1.65	1.50
49F426	TR-169	12.6	21/32 dia	3 61/64	25	3.52	3.20
49F548	TR-175	7.	31/64 dia	1 3/32	10	1.12	1.02
49F549	TR-177	9.8	35/64 dia	1 29/32	12	1.26	1.15
49F512	TR-233	4.0	1 1/64dia		10	1.98	1.80
49F424	TR-234R	5.4	1 dia	2 19/32	10	2.75	2.50
49F573	TR-286	8.4	1 dia	1 15/16	12	1.46	1.33
49F574	TR-289	12.6	1 dia	2 25/64	6	2.27	2.06
49F425	RM-312	1.4	19/64 dia	9/64	6	.26	.24
49F513	RM-400R	1.35	29/64 dia	9/64	60	.26	.24
49F514	RM-401	1.35	29/64 dia	1 1/8	24	.37	.34
49F550	RM-411	14.0	1x17/32 dia	1 3/32	1	2.20	2.00
49F551	RM-412	22.4	1x17/32 dia	1 5/16	1	2.80	2.55
49F552	RM-413	28.0	1x17/32 dia	2 1/2	1	3.57	3.25
49F553	RM-415	42.0	1x17/32 dia	3 1/2	1	5.61	5.10
49F554	RM-450R	1.35	29/64 dia	9/16	1	.37	.34
49F519	RM-502R	1.35	1/2 dia	1 31/32	10	4.68	.62
49F427	RM-520	1.4	1/2 dia	17/64	6	.18	.16
49F555	RM-601R	1.35	5/8 dia	15/32	20	.71	.65
49F556	RM-625R	1.35	5/8 dia	1/4	40	.37	.34
49F520	RM-625RT	1.35	5/8 dia	1/4	40	.43	.39
49F575	RM-625RT2	1.35	5/8 dia	1/4	40	.48	.44
49F557	RM-630	1.4	5/8 dia	1/4	40	.33	.30
49F559	RM-640	1.4	5/8 dia	7/16	20	.33	.30
49F576	RM-640RT2	1.35	5/8 dia	7/16	20	.44	.40
49F561	RM-675	1.4	29/64 dia	13/64	60	.29	.26
49F530	ZM-9	1.4	1/2 dia	1 31/32	12	.56	.51
49F562	DM-9N	1.4	1/2 dia	1 31/32	20	.59	.54

POWER-PAK BATTERIES

No.	Type	Application	Size	Volts	NET
49F526	302642	Fire Alarm	1 1/4x2 9/16	7.	3.40
49F577	302125	Fire Alarm	1 9/32x2 31/32	7.	4.25
49F578	303145	Depth Finder	2 1/8x1 3/16x4 3/8	8.4	6.33
49F524	302351-M	Fire Alarm	1 1/32x2 9/16	5.4	2.67
49F521	302478	Recorder	1 1/4x3 9/16	9.8	4.29
49F579	302642	Fire Alarm	1 1/4x2 9/16	7	3.40

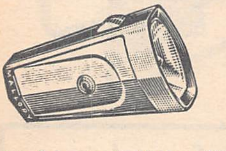
● *NEW* MALLORY MANGANESE ALKALINE BATTERIES

- **Three years shelf life**
- **Lasts 10 times longer**
- **Double steel jacket**
- **Available in std. flashlight battery sizes**

The greatest achievement in batteries since the introduction of the Mercury cell. The Alkaline Manganese battery comes in the form of a round flashlight cell with sizes: D, C, AA, AAA, and N. This battery offers up to 10 times the life of a standard carbon battery and is encased in a double steel jacket offering the greatest leak resistant properties available. The battery has up to three years shelf life.

Stock No.	Type	V.	Application	Std. Pkg.	Net Each	In Std. Pkg.
49F580	MN-1300	1.5	All Purpose "D"	12	.71	.65
49F581	MN-1306	4.5	Transistor Radio	12	.77	.70
49F582	MN-1400	1.5	Transistor Radio and Flashlight ("C")	6	.56	.51
49F583	MN-1500	1.5	Transistor Radio Camera. Flashlight ("AA")	12	.36	.33
49F584	MN-1604	9	Transistor Radio	6	.77	.70
49F585	MN-2400	1.5	All Purpose ("AAA")	12	.34	.31
49F586	MN-9100	1.5	Transistor Radio, Camera, Flashlight ("N")	3	.26	.24

● *NEW* MALLORY POWER BEAM COMPACT FLASHLIGHT



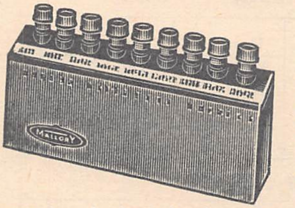
The first small flashlight comparable to big flashlights with two D cells, it uses the New Mallory Manganese batteries and throws a 250 foot beam. It is compact in size, fits readily into coat pocket, handbag or glove compartment. Offers unique styling; flat in shape; won't roll around; fits comfortably in your hand. With Manganese batteries this flashlight gives over 5 hours continuous lighting, over 8 hours of on-off lighting. Has a high impact Grey plastic case, non-breakable lens and comes equipped complete with 2 batteries and a standard 6ML.

49F598. NET EACH.. **1.35**

New Mallory Manganese Batteries for use in the Power Beam Flashlight. Type MN-1500.

49F583. NET EACH.................. **.36** **Std. pkg. of 12**.................. **.33**

MALLORY MERCURY REFERENCE BATTERY



- **Accuracy-Regulation of 1/2%**

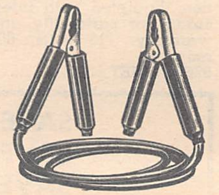
An extremely accurate reference voltage which has application in many types of precision calibration. The stability is ±1/2% of rated EMF. The accuracy of the EMF is a function of the high purity that is maintained in the cell chemistry during manufacturing. Capable of withstanding both electrical and physical abuse. Accidental shorts for brief periods will not damage. Supplies voltages from 1.35v to 10.8 volts in increments of 1.35 volts. Voltages calibrated to .001 of a volt. Applicable in calibration of sensitive scopes, VOM's, VTVM's, temp. measuring bridges. Has internal impedance of 1/2 to 1 ohm. Voltage regulation les than 1/2% for 3 years or more of normal temperature. Size: 6 1/2x1x2 1/2".

49F531. 303113. NET.. **39.50**

SPECIAL APPLICATION POWER-PAK BATTERIES

No.	Type	Application	Volts	NET
49F587	302249	Radiation Equipt.	6.75	2.28
49F588	302250	Radiation Equipt.	9.45	2.45
49F589	302358	Radiation Equipt.	10.8	3.48
49F590	302435	Radiation Equipt.	6.75	2.80
49F591	302437	Radiation Equipt.	9.45	2.83
49F592	302464	Geophysical	6.75	9.05
49F593	302465	Geophysical	47.25	19.20
49F594	302702	Geophysical	2.7	2.67
49F595	302651	Electronic	1.35	3.90
49F596	302904	Meter	5.4	4.32
49F597	302905	Test Equipt.	6.75	6.95

● *NEW* MUELLER AUTOMOTIVE BATTERY BOOSTER CABLES



Type 8A6. Two battery cables with heavy clips on each end. 6 gauge cable, finely stranded (259 strands of #30 wire) for flexibility. Rubber insulation stays flexible even in coldest weather, resists grease and acid. Coppper plated steel clips have lead coated springs, molded vinyl insulation. 1 9/16" jaw spread. Length 8 feet. Shpg. wt., 4 1/2 lbs.

28F470. NET per pair.......................... **4.50**

Type 12A6. As above ,12 feet long. Shpg. wt., 5 1/2 lbs.

28F471. NET per pair.......................... **6.00**

EVEREADY BATTERIES

Large variety of standard and special purpose batteries designed to meet every portable power requirement. Feature high efficiency under continuous or heavy-duty, high drain conditions with low operating cost. Ideal for transistor radio, portable TV, industrial electronic, photoflash, lighting, etc.

EVEREADY
ALKALINE Energizer
FOR HEAVY DRAIN APPLICATIONS

GEIGER COUNTER BATTERY

Stk. No.	Type	NEDA No.	Volts	Size	Unit Pkg.	EACH	In Unit Pkg.
49F391	493	722	300	2 11/16x2 7/32x3 29/32"	1	....	8.37

ALKALINE HEAVY-DUTY BATTERIES

Stk. No.	Type	NEDA No.	Volts	Size	Unit Pkg.	EACH	In Unit Pkg.
48F700	E90	....	1.5	"N"	3	....	....
49F376	E91	....	1.5	"AA"	24	.36	.325
49F374	E93	....	1.5	"C"	12	.43	.39
49F377	E94	927	1.5	"1/2D"	12	.36	.325
49F378	E95	....	1.5	"D"	12	.54	.49
49F379	E97S	....	1.5	1 11/32", Dia. 5 7/32"	12	.80	.73
48F701	E177	1606	9.8	35/64 Dia., 1 29/32"	1	....	....
48F702	523	....	4.5	0.662 Dia. 1.965"	1	....	....
48F703	528	....	9	1 1/32x1 1/32x1 29/32"	6	....	....

VACUUM TUBE TYPE BATTERIES

Stk. No.	Type	NEDA No.	Volts	Size	Unit Pkg.	EACH	In Unit Pkg.
49F351	415	213	45	1 3/64x5/8x3 11/16"	1	....	1.75
49F352	416	217	67.5	1 21/64x6 3/64x3 1/2	1	....	2.07
49F353	467	200	67.5	2 13/16x1 3/8x3 45/64"	1	....	2.45
49F354	477	211	67.5	1 29/32x6 3/64x5 7/16"	1	....	2.27
49F355	479	214	90	1 31/32x1 1/32x7 15/32"	1	....	2.77
49F356	707	26	7.5	2 9/16x2 1/32x2 13/16"	1	....	1.05
49F357	717	9	7.5	2 5/32x1 15/16x3 1/32"	6	1.27	1.15
49F358	964	20	1.5	1 11/32 Dia. 4 3/16"	12	.35	.32
48F704	411	208	15	1 1/32x5/8x1 29/64"	1	....	.81
48F705	413	210	30	1 1/32x5/8x2 9/16"	1	....	1.23
48F706	437	212	75	1 15/16x1 15/32x6 15/32"	1	....	3.15
48F707	455	....	45	2 21/32x1x3 11/16"	1	....	2.08
48F708	457	203	67.5	2 13/16x1 3/8x2 1/2"	1	....	2.42
48F709	490	204	90	3 23/32x1 3/8x3 45/64"	1	....	3.15
48F710	713	8	7.5	3 29/32x53/64x2 27/32"	1	....	1.92
48F711	724	2	6	1 7/32x1 7/32x2 11/32"	1	....	.70
48F712	736	3	4.5	3 15/16x1 5/16x4 3/32"	1	....	.95
48F713	744	....	6	2 5/8x2 5/8x3 27/32"	1	....	1.16
48F714	417	224	15	1 5/16x31/32x1 9/16"	1	....	1.16
48F715	420	225	22.5	1 5/16x31/32x2 3/16"	1	....	1.23
48F716	484	207	45	3 31/32x2 17/32x5 5/16"	1	....	3.29
48F717	507	222	30	5/8x19/32x2.605	1	....	1.30
48F718	752	400	90	14 1/16x2 11/16x4 1/16"	1	....	5.78
48F719	2506	1601	3,6,9	8x2 13/16x1 9/16"	1	....	1.76

PHOTOFLASH BATTERIES

Stk. No.	Type	NEDA No.	Volts	Size	Unit Pkg.	EACH	In Unit Pkg.
49F387	815	....	1.5	"AA"	24	.18	.16
49F388	835	....	1.5	"C"	24	.18	.16
49F389	850	....	1.5	"D"	12	.18	.16
49F350	412	215	22.5	1 1/32x5/8x2"	1	....	1.05
48F775	504	220	15	5/8x19/32x1 3/8"	1	....	.81
48F776	505	221	22.5	5/8x19/32x1 63/64"	1	....	1.05

INDUSTRIAL "D" CELL

Stk. No.	Type	NEDA No.	Volts	Size	Unit Pkg.	EACH	In Unit Pkg.
49F364	1050	....	1.5	"D"	48	.16	.15

INDUSTRIAL TYPE BATTERIES

Stk. No.	Type	NEDA No.	Volts	Size	Unit Pkg.	EACH	In Unit Pkg.
48F771	409	916	6	2 5/8x2 5/8x4 13/32"	25	.73	.66
48F770	482	202	45	3 19/32x1 27/32x5 1/2"	1	....	2.70
48F769	506	223	30	1 13/64x5/8x1 27/4"	1	....	1.30
48F768	738	205	45	3x2 5/16x4 1/8"	1	....	2.76
48F767	762S	709	45	4 3/32x2 9/16x5 7/16"	1	....	3.05
48F720	W350	711	45	3 1/32x1 7/8x4 31/32"	1	....	2.69
48F721	W352	701	13	2 21/32x1 11/32x4 9/16"	1	....	.87
48F722	W353	11	1.5	2 19/32x1 3/8x4 1/4"	1	....	.77
48F723	W354	700	3	2 21/32x1 11/32x4 3/8"	1	....	.87
48F724	W356	....	3	2 5/8x2 5/8x4 9/16"	1	....	1.08
48F725	W357	901	3	3 7/8x2 11/16x5 13/16"	1	....	1.45
48F726	W359	206	45	3 9/16x2 1/4x4 1/2"	1	....	2.49
48F727	W363	....	45	8 1/32x4 1/16x7 5/8"	4	5.32	4.84
48F728	W363P	....	45	8 1/32x4 1/16x7 5/8"	4	5.32	4.84
48F729	W364	....	45	8 1/8x4 7/16x7 11/16"	4	5.85	5.32
48F730	W364P	....	45	8 1/8x4 7/16x7 11/16"	4	5.85	5.32
48F731	W365	723	45	8 1/16x2 15/16x7 5/8"	4	4.22	3.84
48F732	W369	410	90	9 15/16x2 1/4x4 23/32"	1	....	5.48
48F733	425P	....	22.5	1 23/64x1 1/32x3 15/16"	1	....	1.37
48F734	455P	....	45	2 21/32x1 1/64x3 29/32"	1	....	2.10
48F735	489	....	225	4 11/32x2 11/16x4 3/16"	1	....	6.96
48F736	491	....	240	2 19/32x1 5/16x4 1/2"	1	....	5.56
48F737	492	....	225	3 9/16x2 29/32x4 29/32"	1	....	6.13
48F738	493	722	300	2 11/16x2 7/32x3 29/32"	1	....	8.37
48F739	497	....	510	3x1 19/32x5 5/8"	1	....	11.16
48F740	703	....	4.5	2 7/16x2 7/32x3 1/16"	1	....	.74
48F741	735	900	1.5	2 5/8x2 5/8x4 3/8"	1	....	.84
48F742	750	....	3	1 11/32x1 1/16x2 21/32"	1	....	.65
48F743	751	705	4.5	2x1 1/16x2 21/32"	1	....	.74
48F744	763	710	22.5	3 1/2x2 3/32x2 15/16"	1	....	1.61
48F745	771	....	4.5	3 29/32x1 3/8x3 1/16"	1	....	1.65
48F746	773	....	7.5	3 29/32x7/8x3 1/8"	1	....	1.65
48F747	778	....	22.5	4 1/8x2 17/32x3 7/16"	1	....	3.12
48F748	781	....	4.5	2 15/32x55/64x3 1/4"	1	....	.88

CATHODIC ENVELOPE BATTERY

Stk. No.	Type	NEDA No.	Volts	Size	Unit Pkg.	EACH	In Unit Pkg.
49F392	2709	1613	9	1 13/32x4 7/64x4 11/16"	6	1.16	1.05
48F749	2761	1608	9	2 9/32x1 1/4x7 31/32"	1	....	1.58

IGNITION AND TELEPHONE BATTERIES

Stk. No.	Type	NEDA No.	Volts	Size	Unit Pkg.	EACH	In Unit Pkg.
49F390	6	905	1.5	2 5/8 Dia.x6 5/8"	12	.92	.84
49F363	6	906	1.5	2 5/8 Dia.x6 5/8"	12	.92	.84
48F773	716	....	9	8 37/64x4 1/16x6 7/16"	1	....	5.53
48F772	735	900	1.5	2 5/8x2 5/8x4 3/8"	1	....	.84
48F774	1461	907	6	10 13/32x2 25/32x7 9/32"	4	3.67	3.34
48F750	1463	922	12	10 13/32x2 25/32x7 9/32"	1	....	3.85

TRANSISTOR RADIO TYPE BATTERIES

Stk. No.	Type	NEDA No.	Volts	Size	Unit Pkg.	EACH	In Unit Pkg.
49F366	A100	13	1.5	"D"	48	.16	.15
49F367	206	1116	9.0	3/4 Dia.x2"	12	.58	.53
49F368	216	1604	9.0	1 1/32x1 1/16x1 29/32"	12	.58	.53
49F369	226	1600	9.0	1 Dia.x1 15/16"	6	1.05	.95
49F370	239	1900	9.0	1 21/64x1 1/32x2 11/16"	1	....	1.05
49F371	246	1602	9.0	1 13/32x1 11/32x2 3/4"	1	....	1.30
49F372	266	1605	9.0	1 13/16x1 13/16x2 7/16"	1	....	1.15
49F373	276	1603	9.0	2 9/16x2 1/32x3 5/32"	1	....	1.26
49F384	635	14	1.5	"C"	12	.17	.16
49F383	333	1306	4.5	0.662" Dia.x1.965	1	.58	.53
49F385	904	910	1.5	"N"	6	.09	.08
49F386	1015	15	1.5	"AA"	24	.18	.16
48F751	228	1810	12	1 Dia.x2 7/16"	1	....	1.05
48F752	243	1610	4.5	1 13/32x1 11/32x2 3/4"	1	....	1.19
48F753	274	1400	6	2 9/16x2 1/32x7 29/32"	1	....	3.33

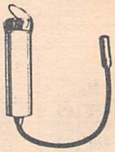
FLASHLIGHT AND LANTERN TYPES

Stk. No.	Type	NEDA No.	Volts	Size	Unit Pkg.	EACH	In Unit Pkg.
49F359	912	24	1.5	"AAA"	12	.11	.10
49F382	915	815	1.5	"AA"	24	.14	.13
49F381	935	814	1.5	"C"	24	.14	.13
49F380	950	813	1.5	"D"	48	.14	.13
49F360	509	908	6.0	2 5/8x2 5/8x4 13/32"	1	....	.79
49F361	731	918	6.0	5 11/32x2 27/32x4 15/16"	6	2.01	1.83
48F754	510S	....	6	2 5/8x2 5/8x4 3/8"	1	....	.79
48F755	706	902	6	8 5/16x2 13/16x6 7/16"	1	....	4.01
48F756	715	903	7.5	7 1/4x4 1/16x6 7/16"	1	....	4.86
48F757	743	5	1.5	3 13/16x2 5/8x4 1/32"	1	....	1.93
48F758	2356	1612	9	2 3/16x1 5/32x6 1/4"	1	....	1.10

BARRICADE LIGHTING BATTERIES

Stk. No.	Type	NEDA No.	Volts	Size	Unit Pkg.	EACH	In Unit Pkg.
48F759	2744	920	6	2 21/32x2 21/32x3 7/8"	1	....	1.10
48F760	2745	924	6	2 21/32x2 21/32x4 7/16"	1	....	1.10
48F761	2746	925	6	2 21/32x2 21/32x4 3/8"	1	....	1.10
48F762	2780	923	12	5 11/32x2 27/32x4 5/32"	1	....	2.37

EVEREADY CABLE LITE



TYPE 332. Designed to light up the hard to get at places. The unit includes tough, flexible cable which allows user to carry the light into almost any position. A convenient ring hanger allows the unit to be hung up when not in use. Has No. 14 bulb. Chrome-plated body holds 2 No. D99 or 950 batteries.

48F763. Type 332. NET **2.49**

EVEREADY UTILITY LITE

TYPE 330. Designed for hard work and years of service. Ideal for tool box or shop. Resists oils, most chemicals and withstands temperature extremes. Has insulated case, non-breakable lens and built-in bulb protector. Shpg. wt., 1 lb.

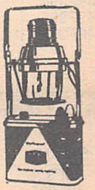
48F764. Type 330. NET .... **.99**

EVEREADY "BIG JIM" CAMP LANTERN

TYPE 106. A tough, versatile camp lantern which can fill many needs. The chrome-plated body has a handle for signalling purposes. The unit uses a PR13 lamp bulb and a No. 731 battery. Shpg. wt., 1½ lbs.

48F765. Type 106. NET **8.20**

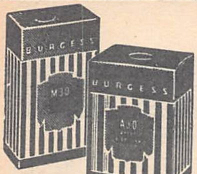
EVEREADY AUXILIARY LIGHTING UNIT



TYPE 107. Designed to give continuous light for up to 10 days. To be used for any lighting emergency in home, boat, or camp. Bulb and battery combinations may be varied to meet a wide range of lighting needs. Unit includes 15 ft. of insulated wire, removable stand, spare bulb holders, and wall screws. Shpg. wt., 1½ lbs.

48F766. Type 107. NET **4.98**

RADIO AND INDUSTRIAL BATTERIES



BURGESS AND RCA RADIO-INDUSTRIAL BATTERIES

Your choice of Burgess or RCA batteries to fit your particular situation. Also included in tables below are Burgess and RCA battery equivalents of Eveready batteries.

Burgess batteries, noted for superior quality, dependable performance, and long life, are used in government and research labs. Type XX69 is supplied with brass plate.

RCA batteries are made to high standards . . . Meet electrical standards of government and research laboratories. All portable "A" and "B" batteries are plug-in types, except † snap fasteners, * flashlight terminals, and ‡ recessed plug terminals.

COMBINATION "A" AND "B" PACKS

BURGESS BATTERIES								RCA BATTERIES				
No.	Type	Std. Pkg.	Each	In Std. Pkg.	Eveready No.	Volts	Size	No.	Type	Std. Pkg.	Each	In Std. Pkg.
49F203	6TA60	1	....	5.48	W369	1½A, 90B	9 31/32x2 1/4x4 7/16"	....	....	....	....	....
49F206	T5Z50	1	....	5.08	755	6, 7½A, 75B	8 1/2x3 11/32x2 3/8"	49F027	VS050	1	....	5.08
49F208	F6A60	1	....	5.43	753	7½, 9A, 90B	9 15/16x2 21/32x4 5/16"	49F016	VS019	1	....	5.43
49F200	G6M60	1	....	6.62	754	7½, 9A, 90B	10 3/16x3 1/8x4 1/32"	....	....	....	....	....
49F209	T6Z60	1	....	4.87	756	7½, 9A, 90B	8 15/16x2 3/16x3 13/16"	49F028	VS057W	1	....	4.87
49F213	T6Z60P	1	....	5.22	727	9A, 90B	8 15/16x2 3/16x3 13/16"	49F047	VS059	1	....	5.22
49F210	F6A60P‡	1	....	5.57	757	9A, 90B	9 7/16x2 3/4x4 11/32"	49F029	VS058	1	....	5.57
49F211	G6B60‡	1	....	5.78	752	9A, 90B	13 29/32x2 13/16x4 21/32"	49F017	VS047	1	....	5.78
49F214	T5Z50P	1	....	4.83	785	7½A, 75B	8 1/2x3 11/32x2 3/8"	49F048	VS060	1	....	4.83
49F146	4TZ60	1	....	4.38	729	1½A,90B	7 5/8x2 1/8x3 3/4"	49F052	VS064	1	....	4.38
49F147	2TXX40	1	....	4.11	W370	1½A,60B	2 13/32x1 11/32x7 5/32"	....	....	....	....	....

PORTABLE "B" BATTERIES

No.	Type	Std. Pkg.	Each	In Std. Pkg.	Eveready No.	Volts	Size	No.	Type	Std. Pkg.	Each	In Std. Pkg.
49F180	U30	1	....	1.75	415	45	1 3/32x1 9/32x3 17/32"	49F033	VS086	6	1.92	1.75
49F160	XX45†	6	2.69	2.45	467	67½	2 3/4x1 11/32x3 43/64"	49F013	VS016†	6	2.70	2.45
49F171	P45	6	2.39	2.17	477	67½	1 29/32x1x5 9/32"	....	VS218	....	....	....
49F161	K45†	6	2.66	2.42	457	67½	2 11/16x1 5/16x2 1/4"	49F037	VS082	6	2.66	2.42
49F179	XX50†	6	3.47	3.15	437	75	1 27/32x1 5/16x6 5/16"	49F034	VS217	6	3.47	3.15
49F163	N60†	6	3.47	3.15	490	90	3 11/16x1 9/32x3 19/32"	49F010	VS090†	6	3.47	3.15
49F173	U15	1	....	1.05	412	22½	1x39/64x1 31/32"	49F051	VS084	20	1.15	1.05
49F183	P60	6	3.05	2.77	479	90	1 29/32x1x7 13/32"	49F049	VS219	12	3.05	2.63
49F195	UX45	1	....	2.07	416	67½	1 7/32x3 1/32x3 31/32"	....	VS318	....	....	....
49F196	N60X	1	....	3.47	......	90	1 7/8x1 11/32x7 1/8"	....	VS316	....	....	....
49F148	V45	6	2.70	2.45	468	67½	2 3/4x1 11/32x3 43/64"	....	....	....	....	....
49F149	V60	6	3.47	3.15	......	90	3 23/32x1 9/32x3 11/16"	....	....	....	....	....

PORTABLE "A" BATTERIES

No.	Type	Std. Pkg.	Each	In Std. Pkg.	Eveready No.	Volts	Size	No.	Type	Std. Pkg.	Each	In Std. Pkg.
49F261	1	24	.14	.13	935	1½	63/64D.x1 15/16"	49F015	VS035	25	.14	.13
49F127	2F	1	....	.77	W353	1½	2 19/32x1 3/8x4 1/4"	....	VS141	....	....	....
49F144	21R	12	.35	.32	964	1½	1 21/64D.x4 1/8"	49F030	VS236	12	.35	.32
49F100	2D	1	....	.84	720	1½	2 9/16x1 9/32x2 31/32"	....	VS069	....	....	....
49F101	2R	48	.14	.13	950	1½	1 21/64D.x2 25/64"	49F000	VS036	48	.14	.13
49F143	D3	6	1.06	.95	726	4½	3 7/8x1 5/16x2 15/16"	....	VSC72	....	....	....
49F107	Z4	1	....	.70	724	6	1 3/16x1 3/16x2 7/32"	....	VS068	....	....	....
49F108	B5	1	....	1.58	713	7½	3 29/32x7/8x2 27/32"	....	VS129	....	....	....
49F109	C5	6	1.15	1.05	717	7½	2 7/32x1 15/16x3 1/32"	49F045	VS065	12	1.27	1.15
49F292	NE	6	.09	.08	......	1½	7/16D.x1 11/64"	49F061	VS073	24	.09	.08
49F104	F3	1	....	.95	736	4½	4x1 7/16x4 1/8"	49F005	VS067	6	1.05	.95
49F106	F4P1	6	1.28	1.16	744	6	2 21/32x2 21/32x4 1/8"	49F006	VS009	6	1.28	1.16
49F215	4D	1	....	1.35	......	1½	2 5/8x2 5/8x2 13/16"	....	....	....	....	....

TRANSISTOR RADIO AND HEARING AID BATTERIES

BURGESS BATTERIES								RCA BATTERIES				
No.	Type	Std. Pkg.	Each	In Std. Pkg.	Eveready No.	Volts	Size	No.	Type	Std. Pkg.	Each	In Std. Pkg.
49F189	D6P1	1	1.76	......	2506	3, 6, 9	2 19/32x1 7/16x7 27/32"	49F054	VS301	12	1.94	1.76
49F186	2N6	1	1.30	......	246	9	1 3/8x1 3/8x2 3/4"	49F056	VS305	12	1.43	1.30
49F187	D6	1	1.26	......	276	9	2 9/16x2x3 5/32"	49F057	VS306	6	1.39	1.26
49F184	XX9	1	1.05	......	239	9, 13½	1 9/32x29/32x2 17/32"	49F058	VS304	12	1.16	1.05
49F188	2U6	12	.53	.48	216	9	1x39/64x1 7/8"	....	VS323	....	....	....
49F191	P6	12	.68	.62	226	9	10x1 15/16"	....	VS300	....	....	....
49F199	230	24	.17	.155	A100	1½	1 21/64D.x2 25/64"	....	VS336	....	....	....
49F194	2Z3	1	1.11	......	....	4½	1 3/8x1 3/8x2 3/4"	....	VS324	....	....	....
49F326	A4	1	.69	......	....	6	1 9/32x1 9/32x2 11/32"	....	....	....	....	....
49F331	D5	1	1.10	......	2356	9	2 5/16x1 1/32x6 1/16"	....	....	....	....	....
49F199	C6X	1	1.05	......	707	7½	2 9/16x2x2 23/32"	....	VS315	....	....	....
49F198	130	12	.18	.155	635	1½	63/64 Diam. x 1 15/16"	....	VS335	....	....	....
49F197	930	12	.17	.15	1015E	1½	35/64 Diam. x 1 31/32"	....	VS334	....	....	....
49F190	M6	1	1.05	......	266	9	1 13/16x1 13/16x2 7/16"	....	VS322	....	....	....
49F330	D6S	1	1.36	......	2761	9	2 1/4x1 1/4x7 29/32"	....	....	....	....	....
49F124	8R	1	....	.60	960P	1½	1 3/32 Diam.x3 15/16"	....	VS070	....	....	....
49F125	9R	12	.13	.12	1015E	1½	35/64 Diam.x1 63/64"	....	VS334	....	....	....
49F172	XX15	1	1.37	......	425P	22½	1 11/32x1 5/16x3 7/8"	....	....	....	....	....
49F216	4D4	1	....	3.33	....	6	2 17/32x2x7 5/16"	....	....	....	....	....
49F332	Y6 (YL6)	12	.91	.83	E177	9	3/5x3/5x1 9/10"	....	....	....	....	....
49F334	L6	12	.58	.53	206	9	47/64D.x1 31/32"	....	....	....	....	....
49F336	2MN6	12	.72	.65	216	9	1x39/64x1 7/8"	....	....	....	....	....
49F335	PM6	6	.88	.80	226	9	1 Dia.x1 15/16"	....	....	....	....	....

● *NEW* BURGESS SUPER ACTIVATOR PREMIUM GRADE TRANSISTOR RADIO BATTERIES

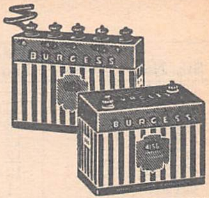
New premium grade batteries last longer than regular batteries, cutting operating cost per hour. Replace the two most popular transistor radio batteries.

Stk. No.	Type	Volts	Size	Replaces			Std. Pkg.	Each	In Std. Pkg.
				Burgess	RCA	Eveready			
49F336	2NN6	9	1"x39/64"x1 7/8"	2U6	VS323	216	24	.71	.65
49F335	PM6	9	1"D.x1 15/16"	P6	VS300A	226	12	.88	.80

INDUSTRIAL TYPE BATTERIES

BURGESS & RCA INDUSTRIAL TYPE BATTERIES

All the batteries listed below are guaranteed fresh when they leave our store and carry a manufacturer's guarantee. Made to high standards, these batteries are fully inspected to insure uniform high quality. All types listed below have binding post type terminals except where U and K in the type number denote flat terminals. PI in the type number denotes plug-in type terminals, while SC denotes screw type terminals.



INDUSTRIAL AND ELECTRONIC "A" BATTERIES

BURGESS BATTERIES					Description			RCA BATTERIES				
Stock No.	Type	Std. Pkg.	Each	In Std. Pkg.	Ever-Ready No.	Volts	Size in Inches	Stock No.	RCA Type	Std. Pkg.	Each	In Std. Pkg.
49F261	1	24	.14	.13	935	1½	63/64Dx1 15/16	49F015	VS035A	25	.14	.13
49F112	2FBP	5	.87	.79	W354	1½	2 21/32x1⅜x4 1/32	49F022	VS101	5	.96	.87
49F102	4F	6	1.27	1.15	742	1½	2⅝x2⅝x4 3/32	49F001	VS004	6	1.26	1.15
49F103	6F	1	......	1.93	743	1½	4 3/32x2¾x4 1/16	....	....	....	......	......
49F113	2F2BP	1	......	2.23	....	3	5 3/16x1 5/16x4 5/32	....	....	....	......	......
49F114	2F2H	5	1.19	1.08	W356	3	1⅛x1 9/32x1 63/64	....	VS136	....	......	......
49F115	B2BP	6	1.03	.94	....	3	1⅝x1 3/16x2 11/16	....	....	....	......	......
49F116	F2BP	5	.87	.79	W352	3	2 21/32x1⅜x4 1/32	....	VS100	....	......	......
49F117	422	10	.63	.57	750	3	1 11/32x2 3/32x2 5/16	....	VS134	....	......	......
49F118	432	10	.73	.66	751	4½	1 31/32x2 1/32x2¼	....	VS142	....	......	......
....	....	....	......	......	....	4½	2 13/32x2 7/32x2 21/32	49F026	VS028	5	.97	.81
49F119	532	1	......	.68	703	4½	2 15/32x1 3/16x2 23/32	....	VS133	....	......	......
49F142	2F4	1	......	2.73	718	6	4x2 13/16x5 7/16	....	VS010	....	......	......
49F120	F4BP	1	......	.79	510S	6	2⅝x2⅝x4	....	VS040S	....	......	......
49F131	5R	12	.26	.24		1½	49/64Dx2 15/64	....	....	....	....	....
49F132	37	1	....	.65	......	1½	1 5/16Dx6⅛	....	....	....	....	....
49F126	2Z	10	.35	.32	1016E	1½	2⅝x2⅝x4 3/32	....	....	....	....	....
49F133	8F	1	....	2.42	741	1½	3 29/32x2 23/32x5½	....	....	....	....	....
49F134	F4X	1	....	2.65	......	6	5 5/16x1 13/32x4⅛	....	....	....	....	....

INDUSTRIAL AND ELECTRONIC "B" BATTERIES

Stock No.	Type	Std. Pkg.	Each	In Std. Pkg.	Ever-Ready No.	Volts	Size in Inches	Stock No.	RCA Type	Std. Pkg.	Each	In Std. Pkg.
49F178	U10	1	......	.81	411	15	1x39/64x1 7/16	49F059	VS083	20	.89	.81
49F293	Y10	1	......	.81	504	15	19/32x19/32x1 23/64	....	....	....	......	......
49F173	U15	1	......	1.05	412	22½	1x39/64x1 31/32	49F051	VS084	20	1.15	1.05
49F294	Y15	1	......	1.05	505	22½	19/32x19/32x1 31/32	....	....	....	......	......
49F166	4156	1	......	1.61	763	22½	3 17/32x2⅛x2 29/32	49F023	VS102	5	1.78	1.61
49F167	5156PI	1	......	3.12	768	—3, —4½, —16½ —22½	4 7/64x2⅜x2 55/64	....	VS031	....	......	......
49F168	5156SC	5	3.43	3.12	778	—3, 4½, —6, —9, —10½, —16½, —22½	4⅛x2½x2¾	49F043	VS131	5	3.43	3.12
49F175	U20	1	......	1.23	413	30	1x39/64x2 17/32	49F060	VS085	20	1.35	1.23
49F295	Y20	1	......	1.30	506	30	1 3/16x19/32x1 13/32	....	....	....	......	......
49F129	K10	1	......	1.16	417	15	1¼x⅞x1 17/32	....	VS084	....	......	......
49F130	K15	1	......	1.23	420	22½	1¼x⅞x2 9/32	....	VS083	....	......	......
49F174	K20	1	......	1.51	430	30	1¼x1 5/16x2 23/32	....	....	....	......	......
49F177	XX30PI	1	......	2.10	455P	45	2 17/32x3 1/32x4 1/32	....	....	....	......	......
49F170	Z30NX	5	2.96	2.69	W350	22½, 45	3 1/32x1⅞x4 19/32	49F024	VS114	5	2.96	2.69
49F169	5308	1	......	3.05	W376	22½, 45	4 1/16x2 9/16x5⅛	....	VS112	....	......	......
49F155	2308SC	1	......	3.84	W365F	22½, 45	8 3/32x2 31/32x7¼	....	VS126	....	......	......
49F156	10308PI	1	......	4.84	W363P	22½, 45	8 1/32x4 1/32x7 3/16	....	VS027	....	......	......
49F157	10308SC	1	......	4.84	W363F	22½, 45	8 1/32x4 1/32x7 3/16	....	VS127	....	......	......
49F158	21308PI	1	......	5.36	W364P	22½, 45	8⅛x4 15/32x7 9/32	....	....	....	......	......
49F159	21308SC	1	......	5.36	W364F	22½, 45	8⅛x4 15/32x7 9/32	....	VS157	....	......	......
49F165	U-200	1	......	8.37	493	300	2¾x2 9/32x3⅞	....	VS093	....	......	......
49F150	A30	2	2.74	2.49	W359	45	3 9/16x2¼x4 5/16	....	....	....	......	......
49F151	B30	2	3.62	3.29	484	45	4 1/16x2 17/32x5 5/16	....	VS012	....	......	......
49F152	M30	1	......	2.70	482	45	3 9/16x1¾x5½	49F009	VS013	6	2.97	2.70
49F153	XX30†	6	2.11	1.92	455	45	2 17/32x3 1/32x3 21/32	49F012	VS055†	6	2.29	2.08
49F154	Z30	2	3.03	2.76	738	45	3x2 5/16x4 1/16	49F011	VS015	6	2.97	2.76
49F162	A60	1	......	5.55	......	90	4 7/16x3⅜x4½	....	....	....	......	......
49F164	XX69	1	......	4.60	W361	103½	1 11/32x1 11/32x11 23/3:	....	....	....	......	......
49F296	Y20S	1	......	1.30	507	30	19/32x19/32x2 9/16	....	....	....	......	......
49F135	D30	1	....	3.47	487	45	5 1/16x2 1/32x7 5/16	....	....	....	....	....
49F176	XX22	1	....	1.72	433P	33	2 17/32x3 1/32x3⅛	....	....	....	....	....
49F136	Z30T	1	....	2.62	....	45	3x2 5/16x4⅛	....	....	....	....	....
49F137	Z30BP	1	....	5.28	W351	45	3 11/16x2 11/32x3 7/16	....	....	....	....	....
49F138	Z60BP	1	....	8.90	....	90	3¾x2 11/32x5 15/16	....	....	....	....	....

† Snap fasteners

INDUSTRIAL "C" BATTERIES

Stock No.	Type	Std. Pkg.	Each	In Std. Pkg.	Ever-Ready No.	Volts	Size in Inches	Stock No.	RCA Type	Std. Pkg.	Each	In Std. Pkg.
49F230	A3BPX	1	......	1.76	....	4½	1 31/32x2 3/32x2¼	....	....	....	......	......
49F231	2370PI	5	1.74	1.58	771	4½	4 1/64x1 27/64x2 63/64	....	VS030	....	......	......
49F232	2370ST	5	1.41	1.33	761T	4½	3 15/16x1⅜x2⅞	....	VS130	....	......	......
49F233	5360	10	.98	.88	781	4½	2 13/32x2 7/32x2 21/32	49F026	VS028	5	.97	.81
49F234	W5BP	6	1.62	1.47	W362	7½	2 31/32x2 3/32x1¾	....	....	....	......	......
49F235	5540	5	1.81	1.65	773	—1½, —3, —4½, —6, —7½	4x⅞x2¾	....	VS029	....	......	......
49F236	A8BP	1	....	4.17	....	12	2 25/32x1 25/64x2 15/32	....	....	....	......	......
49F239	A9BP	1	....	3.76	....	13½	2 3/32x2 3/32x2 13/32	....	....	....	......	......

INDUSTRIAL "D" CELL

Stock No.	Type	Std. Pkg.	Each	In Std. Pkg.	Ever-Ready No.	Volts	Size in Inches	Stock No.	RCA Type	Std. Pkg.	Each	In Std. Pkg.
49F265	210	48	.18	.155	....	1½	1 21/64Dx2⅜	....	VS036	......	....	......

IGNITION AND TELEPHONE BATTERIES

Stock No.	Type	Std. Pkg.	Each	In Std. Pkg.	Ever-Ready No.	Volts	Size in Inches	Stock No.	RCA Type	Std. Pkg.	Each	In Std. Pkg.
49F250	4FH	12	.92	.84	735	1½	2⅝x2⅝x4	49F019	VS106	10	.92	.84
49F251	4F2H	1	......	1.45	W357	3	3 29/32x2 11/16x5 13/32	....	VS138	....	......	......
49F252	4F4H	1	......	3.34	706	6	8 5/16x2 13/16x5 13/16	....	VS103	....	......	......
49F253	4F5H	1	......	4.86	715	7½	7 3/16x3 31/32x5 13/16	....	VS139	....	......	......
49F254	4F6H	1	......	5.53	716	9	8½x3 31/32x5 13/16	....	VS140	....	......	......
49F140	6IGN	12	.92	.84	61GN	1½	2½Dx6⅝	49F002	VS006S	12	.92	.84
49F266	6IND	12	.99	.90	61ND	1½	2½Dx6⅝	....	....	....	......	......
49F141	S461	6	3.67	3.34	1461	6	10½x2¾x7 13/32	....	VS039	....	......	......
49F365	716	1	....	5.53	904*	9	8 37/64x4 1/16x6 7/16"	....	....	....	....	....

*NEDA No.

BATTERIES AND ACCESSORIES

BURGESS FLASHLIGHT AND LANTERN BATTERIES

Stk. No.	Type	Std. Pkg.	Each	In Std. Pkg.	Eveready No.	Volts	Size In Inches	Stk. No.	RCA No.	Std. Pkg.	Each	In Std. Pkg.
49F260	2	48	.14	.13	950	1½	1 21/64Dx2 3/8	49F000	VS036	48	.14	.13
49F261	1	24	.14	.13	935	1½	63/64Dx1 15/16	49F015	VS035	25	.14	.13
49F262	Z	12	.11	.095	915	1½	35/64Dx1 31/32	49F014	VS034A	12	.15	.13
49F263	7	12	.11	.095	912	1½	13/32Dx1¾	49F050	VS074	24	.11	.10
49F292	NE	12	.09	.08	W468	1½	7/16Dx1 11/64	49F061	VS073	24	.09	.08
49F264	F4H	12	.87	.79	509	6	2 5/8x2 5/8x4 3/8	49F021	VS040C	10	.87	.79
49F316	TW1	1	......	1.83	731	6	5 3/8x2 7/8x4 15/16	....	....	....	.....	......
49F305	TW2	1	......	1.83	....							

BURGESS PHOTOFLASH BATTERIES

These photoflash batteries are specifically designed for longer shelf life and maximum peak current. The table at right lists respective Burgess replacements for National Carbon and Olin batteries.

No.	Type	Volts	Nat. C.	Olin	Pack	Wt.	EA.
49F173	U15	22½	412	1915	12	1 oz.	1.05
49F277	XX150	225	......	....	1	2½ lb.	6.96
49F278	N150	225	492	....	1	2½ lb.	5.56
49F279	U160	240	491	924	1	¾ lb.	5.56
49F275	U320	510	497	....	1	1½ lb.	11.16

BURGESS SEALED NICKEL-CADMIUM BATTERIES

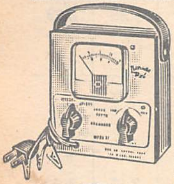
Burgess sealed nickel-cadmium batteries are useful in portable applications requiring more energy than is delivered by primary batteries. All are hermetically sealed which eliminates annoying maintenance and messy addition of liquids. These cells and batteries can be recharged many times for long lasting, economical power. Long idle periods in either a charged or uncharged state do not adversly affect them. Respond equally well to both trickle or quick charge. Completely sealed in steel. Av. shpg. wt. ½ lb.

Stk. No.	Type	Volts	Size	Each
49F650	CD1	1.25	.460 (diam.) .225	1.16
49F651	CD2	1.25	.610 (diam.) .236	.81
49F652	CD8	1.25	.984 (diam.) .232	.90
49F653	CD8L*	1.25	.984 (diam.) .257	.99
49F654	CD3	1.25	.984 (diam.) .275	.92
49F655	CD3L*	1.25	.984 (diam.) .300	1.01
49F656	CD4	1.25	.984 (diam.) .350	.95
49F657	CD4L*	1.25	.984 (diam.) .375	1.21
49F658	CD5	1.25	1.700 (diam.) .300	1.47
49F659	CD5L*	1.25	1.700 (diam.) .325	1.60
49F660	CD6(AA)	1.25	.560 (diam.) 1.950	1.93
49F661	CD6L(AA)*	1.25	.560 (diam.) 2.275	2.20
49F662	CD9	1.25	.550 (diam.) 3.680	3.01
49F663	CD7(D)	1.25	1.300 (diam.) 2.425	3.50
49F664	CD7L(D)*	1.25	1.300 (diam.) 2.775	3.75
49F665	CD10(D)	1.25	1.300 (diam.) 2.425	6.12
49F666	CD10L(D)*	1.25	1.300 (diam.) 2.775	6.40
49F667	CD11(D)	1.25	1.300 (diam.) 2.425	4.53
49F668	CD11L(D)*	1.25	1.300 (diam.) 2.775	4.80
49F669	CD12 (short C)	1.25	.876 (diam.) 1.672	2.70
49F670	CD13 (half D)	1.25	1.273 (diam.) 1.440	3.98
49F671	CD21	6	1.065 (diam.) 1.525	5.74
49F672	CD22	6	1.065 (diam.) 1.975	5.90

Stk. No.	Type	Volts	Size	Each
49F673	CD23	6	1.800 (diam.) 1.725	10.15
49F674	CD24	9.6	1.065 (diam.) 2.650	9.39
49F675	CD25	9.6	1.065 (diam.) 3.200	9.58
49F676	CD25L*	9.6	1.065 (diam.) 3.200	9.48
49F677	CD26	9.6	1.800 (diam.) 2.575	15.85
49F678	CD27	12	1.065 (diam.) 2.925	11.56
49F679	CD28	12	1.065 (diam.) 3.600	11.95
49F680	CD29	12	1.800 (diam.) 3.100	19.50
49F681	CD30	6	1½x1½x3 13/16	19.96
49F682	CD31	6	3 13/16x1 17/32x3 5/8	23.79
49F683	CD100	1.25	1.36 .75 3.36	6.44
49F684	CD101	1.25	1.36 1.36 2.40	6.38
49F685	CD102	1.25	1.36 1.36 3.36	7.25
49F686	CD103S	1.25	1.57 .92 4.01	12.40
49F687	CD104	1.25	1.67 1.93 3.13	9.89
49F688	CD105	1.25	1.67 1.93 3.65	10.98
49F689	CD106S	1.25	1.57 1.48 4.01	14.10
49F690	CD107	1.25	1.67 1.93 4.25	10.42
49F691	CD108	1.25	1.05 3.56 4.90	13.32
49F692	CD109	1.25	1.34 3.56 4.90	16.48
49F693	CD110	1.25	1.66 3.56 4.90	19.00
49F694	CD111	1.25	1.97 3.56 4.90	25.24

***L after type number indicates types with solder lugs or terminals.**

SENCORE BATTERY CHARGER



Type PS103. Can be used to charge nickel plated cadmium batteries. Replaces batteries during repair. Service transistor circuits with this power supply. Output range 0-24 volts DC. Low ripple insures no hum or feedback. Total current drawn can also be read on the PS103 by turning the function switch to milliamps. The PS103 will operate radio with tapped battery supplies as Philco, Sylvania, and Motorola. Shipping Weight 2 lbs.

62F429. NET..**24.95**

● *NEW* BURGESS ALKALINE BATTERIES

General Purpose, 1.5 volt batteries for use in flashlights, toys, hearing aids, photo-flash, hobbies and electronic equipment, except (*) AL-133 which is 4.5 volts and used for transistors. Have longer life than carbon-zinc types on more severe drains.

(*)Replaces Burgess Zinc Carbon Cell.

Stk. No.	Type	Style	Ever-ready	Size	Std. Pkg.	Each	Std. Pkg.
49F720	AL-9	"AA"	E91	17/32 Dx1 31/32"	12	.36	.33
49F721	AL-1	"C"	E93	63/64dx1 15/16"	6	.56	.51
49F722	AL-7	"AAA"	....	13/32dx1¾"	12	.34	.31
49F723	AL-N	"N"	904	29/64 dx1 1/8"	3	.26	.24
49F724	AL-133*	....	333	21/32 dx2"	12	.72	.65

BURGESS MERCURY BATTERIES

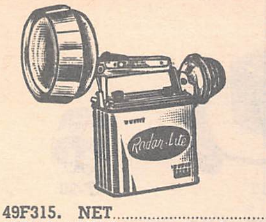
Stk. No.	Type	Volts	Size	(*)	Ever-Ready	Std. Pkg.	Each	Std. Pkg.
49F750	Hg-1	1.4	5/8 dia.x21/32	....	....	4	.42	.38
49F751	Hg-1R	1.35	5/8 dia.x21/32	....	E1	4	.48	.44
49F752	Hg-3R	1.35	1 dia.x21/32	....	E3	4	.59	.54
49F753	Hg-4R	1.35	1 13/64 dia.x21/32	....	E4	4	.76	.69
49F754	Hg-9	1.4	17/32 dia.x1 31/32	930	E9	12	.56	.51
49F755	Hg-12	1.4	5/8 dia.x2	....	....	2	.83	.75
49F756	Hg-12R	1.35	5/8 dia.x2	....	E12	2	.90	.82
49F757	Hg-42R	1.35	1 13/64 dia.x2 3/8	#2	E42	1	1.85	1.85
49F758	H113R	4.05	43/64 dia.x27/32	....	E113	2	1.42	1.29
49F759	H114R	5.40	43/64 dia.x1 3/32	....	E114	2	1.63	1.50
49F760	H115R	6.75	43/64 dia.x1 21/64	....	E115	2	1.80	1.64
49F761	H126	8.4	41/64 dia.x1 63/64	LC	E126	12	.94	.85
49F762	H132R	2.7	43/64 dia.x1 5/16	....	E132	2	1.01	.92
49F763	H133	4.2	21/32 dia.x2	....	E133	12	1.10	1.00
49F764	H133R	4.05	21/32 dia.x2	....	....	2	1.30	1.18
49F765	H134R	5.4	43/64dia.x2 5/8	....	E134	2	1.60	1.45
49F766	H135R	6.75	43/64 dia.x3 9/32	....	E135	2	2.04	1.85
49F767	H136R	8.1	43/64 dia.x3 15/16	....	E136	2	2.40	2.18
49F768	H137R	9.45	43/64 dia.x4 19/32	....	E137	1	....	2.60
49F769	H145	7.0	21/32 dia.x1 13/64	....	E145	2	1.71	1.55
49F770	H146	8.4	1x1 9/32x1 7/8	2u6	E146	6	1.12	1.02
49F771	H152R	2.7	31/32 dia.x1 9/64	....	E152	2	.86	.78
49F772	H153R	4.05	31/32 dia.x1 45/64	....	E153	2	1.12	1.02
49F773	H162R	2.7	43/64 dia.x57/64	....	E162	2	.96	.87
49F774	H163	4.2	21/32 dia.x1 5/16	....	E163	2	1.12	1.02

Stk. No.	Type	Volts	Size	(*)	Ever-Ready	Std. Pkg.	Each	Std. Pkg.
49F775	H163R	4.05	21/32 dia.x1 5/16	....	....	2	1.21	1.10
49F776	H164	5.6	21/32 dia.x1¾	....	E164	12	1.27	1.15
49F777	H164R	5.4	21/32 dia.x1¾	....	....	2	1.45	1.32
49F778	H165	7.0	21/32 dia.x2 13/64	....	E165	2	1.65	1.50
49F779	H165R	6.75	21/32 dia.x2 13/64	YL6	....	2	1.83	1.66
49F780	H177	9.8	35/64 dia.x1 29/32	....	E177	12	1.27	1.15
49F781	H233	4.2	1 1/64 dia.x1 31/32	....	E233	1	1.80	1.80
49F782	Hg-312	1.4	5/16 dia.x9/64	....	E312	6	.26	.24
49F783	Hg-400	1.4	29/64 dia.x9/64	....	....	6	.21	.19
49F784	Hg-400R	1.35	29/64 dia.x9/64	....	E400	6	.26	.24
49F785	Hg-401	1.4	29/64 dia.x1 1/8	NE	E401	3	.37	.34
49F786	Hg-401R	1.35	29/64 dia.x1 1/8	....	....	2	.40	.36
49F787	Hg-450R	1.35	29/64 dia.x9/16	....	E450	4	.37	.34
49F788	Hg-502R	1.35	17/32 dia.x1 31/32	....	E502	2	.68	.62
49F789	Hg-520	1.4	½ dia.x9/32	....	E520	6	.18	.16
49F790	Hg-601R	1.35	5/8 dia.x1 9/64	....	E601	2	.72	.65
49F791	Hg-625	1.4	5/8 dia.x¼	....	....	4	.33	.30
49F792	Hg-625R	1.35	5/8 dia.x¼	....	E625	4	.37	.34
49F793	Hg-630	1.4	5/8 dia.x¼	....	E630	4	.33	.30
49F794	Hg-630R	1.35	5/8 dia.x¼	....	....	4	.37	.34
49F795	Hg-640	1.4	5/8 dia.x7/16	....	E640	4	.33	.30
49F796	Hg-640R	1.35	5/8 dia.x7/16	....	....	4	.37	.34
49F797	Hg-675	1.4	29/64 dia.x13/64	....	E675	6	.29	.26
49F798	HPX-4	5.6	....	....	....	1	1.45	1.45
49F799	HPX-6	8.4	....	....	....	1	2.55	2.55

BATTERIES, FLASHLIGHTS AND ACCESSORIES

BURGESS LIGHTS

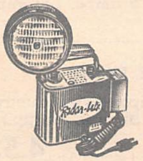
HANDY RADARLITE



Model TW3. Safety lantern for emergency use. 40,000 CP sealed beam headlight unit penetrates a half mile. Automatic red flasher is visible a mile down the highway. Complete with battery. Shpg. wt. 5⁷⁄₁₀ lbs. Size: 5⅜x2⅞x4¹⁵⁄₁₆".
49F314. NET........................ **8.28**

Model TW4. Not shown. As above, but less red flasher. Has sealed beam light only.
49F315. NET........................6.63
49F316. TW1 battery for above. **NET**........................1.83
25F148. Replacement lamp. **NET**........................2.50

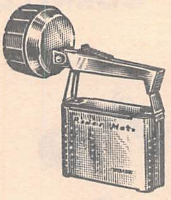
POWER FAILURE EMERGENCY LANTERN



Automatic relay turns lamp on the instant AC-power fails. Plug and 6-ft. extension cord connect to any 110 volt, 60 cycle outlet. 40,000 Candlepower sealed beam. Flood light lens (TW6E) diffuses light over a wide area (spotlight lens (TW4E) if your requirements are for a long range beam). Steel-clad, multi-cell battery is corrosion proof. Battery size: 5⅜x2⅞x4¹⁵⁄₁₆". Shpg. wt., 5 lbs.

Stk. No.	Type	Description	1-5	6-48
49F320	TW6E	Flood beam (Lamp No. 4512)	14.83	13.48
49F321	TW4E	Spot beam (Lamp No. 4546)	14.83	13.48
49F316	TWI	Replacement battery for above	1.83	....

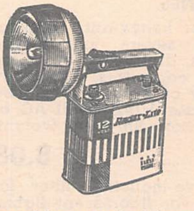
BURGESS RADAR MATE



- **Separated Head and Battery**
- **Push-Pull Loading** • **Corrosion-Proof**

Model JR1. The Radarlite concept applied to a smaller portable light. Features: separate head and battery container, Light beam from sealed head, weatherproof switch and corrosion-proof construction. Powered by 3 Burgess No. 2 (D) flashlight batteries (supplied).
49F319. NET........................ **3.32**

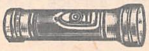
12 VOLT PORTABLE LIGHT



Model TW-12. 12 volt Radar-Lite offers the brightest light possible in a portable light. Combines heavy-duty 12 volt Burgess battery with powerful reflector type lamp. Modern 12 volt battery delivers up to three times as much life as batteries used in ordinary lanterns. Steel clad makes for leakproof construction. Exclusive switch-lock will not allow lantern to turn on by accident. Comfortable steel handle is designed for outdoor service. Switch is conveniently located on handle. No wires need be attached from battery to lamp. Reflector is made from multi-faceted, vacuum aluminized material to provide a more powerful even distributed light. Complete with battery.
49F322. NET........................ **6.70**
Model TW-2. Replacement battery.
49F305. NET........................1.83

No. P92. Heavy-Duty Penlights. Prefocused No. 222 lamp. Uses two No. 2 cells (size AA). Shpg. wt., 3 oz. less cells.
49F333. NET........................ **65c**
In Std. Pkg. of 6. EACH........................ .59

No. 357.—Enamel finish; chrome trim. Locking on-off switch. Requires two No. 2 cells. Shpg. wt., 8 oz.
49F300. NET........................ **1.43**
In Std. Pkg. of 6. EACH........................1.30



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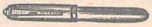

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No. 350.—Industrial light with new air float, cushion reflector. Uses 2 No. 2 cells and PR2 lamp. Wt., 8 oz.
49F313. NET........................ **1.41**
In Std. Pkg. of 6. EACH........................1.28

No. 457. Prefocused 4 cell flashlight for extra strong beam.
49F324. NET........................ **2.45**
Standard Package of 12. EACH........................2.20

No. 257.—Baby-sized version of No. 357. Requires two No. 1 cells. 5 oz.
49F301. NET........................ **1.29**
In Std. Pkg. of 3. EACH........................1.17

No. 152. Penlight. Smart 2-tone pocket-size pen-type case with life-long switch. Requires two No. 7 cells. 3 oz.
49F307. NET........................ **65c**
In Std. Pkg. of 12. EACH........................59c

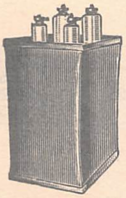
Type 161. Magnet light which adheres to all metal surfaces. Non-breakable brite-glo head, positive action switch, aluminized reflector, and alnico magnet. Shpg. wt. 8 oz.

Stock No.	Type No.	NET Each	Pkg. of 6 Each
49F299	161	1.46	1.33

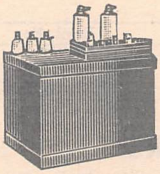
Type K30P-K. Battery and bulb kit includes a 45 volt metal jacketed battery (type K30P), designed especially for wink-light operation and type 428 bulb.

Stock No.	Type No.	NET Each	Pkg. of 6 Each
49F337	K30P	1.83	1.67

PLASTIC CAPACITORS



Selenium Rectifier Power Packs



High Voltage Power Packs

SELENIUM RECTIFIER POWER PACKS

Can be operated without a warmup for rectifier filaments. Hermetically sealed. For 118 V 60 cycle AC. Hot-tinned or Terne Steel, enamel coated case. *3¾ x 3³⁄₁₆ x 5"; **3¾ x 4⁹⁄₁₆ x 5½"; †3 x 4⁹⁄₁₆ x 7½"; ††3¾ x 4⁹⁄₁₆ x 8½".

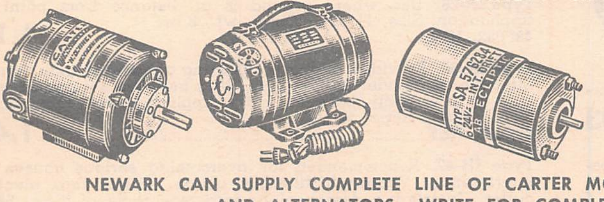
No.	Type	Output KV	Output MA	NET
19F995	*HV 20-202S	0- 2	2	45.80
19F996	**HV 50-302S	0- 5	3	70.80
19F997	†HV100-102S	0-10	1	102.30
19F998	††HV150-102S	0-15	1	134.00

HIGH VOLTAGE POWER PACKS

Easily replaced rectifier tubes; 117 V 60 cycle input; Hermetically sealed; operation temp. range of —40°C to +70° C; Heavy gauge steel, enamel coated case; adjustable input voltage; may be operated at sea level to 10,000 ft.

No.	Type HV-	Volts	Size	Wt.	NET
19F740	50-502	5KV	4⅜x6⅝x6"	19	89.40
19F741	100-502	10KV	8¼"x6x6½"	29	120.00
19F742	150-502	15KV	8¼"x6x6½"	29	130.80
19F743	200-502	20KV	7x10¼x7¾"	50	191.40
19F744	300-502	30KV	7x10¼x7¾"	50	222.00

CARTER MOTORS



Classical FHP Motors. Universal AC/DC type. Precision ball bearings, no lubrication required. Large Line-O-Life brushes. Available from 12V. to 220V.

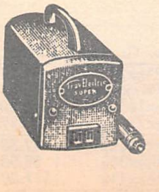
DC to AC Converters. Dependable rotary power for heavy duty industrial service. Ball bearing equipped. No filter is necessary for most operations.

Ecliptic motors. Line of very small motors. Universal, gear motors, Tachometer-Generators, PM and Governor controlled models.

NEWARK CAN SUPPLY COMPLETE LINE OF CARTER MOTORS, CONVERTERS, FREQUENCY CHANGERS AND ALTERNATORS. WRITE FOR COMPLETE INFORMATION AND PRICES.

TERADO CONVERTERS

"SUPER" MODEL



Plugs into cigar lighter on dash. Changes 6 or 12 volts DC to 110 volts AC, 60 cycles. Operates wire recorders, radios, drills, electric shavers, turntables, etc. Size is 3¼x4x6". 60-100 watts. Shpg. wt., 8 lbs.

Type 50126. 6 Volt.
66F095. NET........................33.32
Type 50127. 12 Volt.
66F096. NET........................33.32

"SENIOR" MODEL

Type 50115. As "Super" Model but for turntables, lights, etc. Output 110-120 volts, 60 cyc. Rated 35-50 watts. 2¼x2½x4½". 3 lbs.
66F092. List, $21.95. **NET**........................ **15.98**
66F094. Type 50116. As above, but 12 volt input. **NET**........................15.98

AUTO SHAVER

The "Autoshaver" operates all electric shavers and some test equipment. Cigarette lighter plug-in type.
66F128. Type 50103. 12 volt. 15-20 watts. **NET**........................ **9.31**

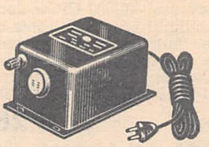
CONVERTERS AND FILTERS

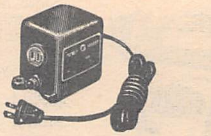
CORNELL-DUBILIER

IF-7A

IF-54

IF-24


IF-18


IF-19

IF-20

INDUSTRIAL QUIETONES

Type IF-7A. Extremely efficient unit for heavy-duty application. Capacitive-inductive filter for severe interference caused by motors, generators, elevators, diathermy, etc. Consists of low-loss coils and high quality capacitors. Especially recommended for interference caused by oil burners. Designed for convenient mounting. For single phase 110-220 volt AC or DC. Rated at 5 amps. Housed in steel box. Shipping weight, 9 lbs.
48F003. NET **8.08**

Type IF-54. General purpose capacitive-inductive filter for circuits of 2 amperes or less. Suitable for fluorescent lights, sign flashers, etc. Rated 110-220 volts, AC or DC. UL approved. Shipping weight, 8 oz.
48F006. NET **1.47**

Type IF-24. Industrial type dual unit capacitive filter for eliminating noise from fluorescent lights. Rated 110 volts AC-DC, no ampere limit. In metal housing. UL approved. Wt., 8 oz.
48F007. NET **73c**

QUIETONE HEAVY DUTY FILTER

Type IF-18. A heavy duty line filter for severe interference caused by motors, dryers, lamps, etc. Bakelite case with receptacle, cord and plug. 110 volts AC-DC. 5 amps. Shipping wt., 4 lbs.
48F000. NET **5.41**

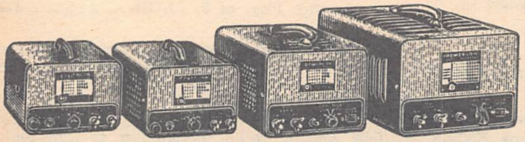
QUIETONE CAPACITIVE-INDUCTIVE FILTER

Type IF-19. Ruggedly constructed. This capacitive-inductive type filter is similar to above but smaller in size. Shipping weight, 1½ lbs.
48F001. NET **4.53**

QUIETONE STANDARD APPLIANCE FILTER

Type IF-20. Especially designed for use on small electric appliances where interference is low. Will give years of dependable service. 110 volts AC-DC. 5 amps. Shpg. wt., 8 oz.
48F002. NET **50c**

DC TO AC CONVERTERS



C-D Powercons are universally applicable for operating radios, television, tape recorders, dictating machines, record players, shavers, PA systems, and small appliances. RF filtering is built into all units. TV filtering and close frequency vibrators are included in all models having sufficient power rating for operating TV receivers. Output voltage control is built into L, S, H and SH Series. All models are fused for safe operation.

No.	Mfrs. Type	Input V.	Input A.	Output-W. Cont.	Output-W. Int.	Size	Wt.	NET
66F206	6/12D6	6/12	15/7	60	75	5½x6¼x8″	12	28.66
66F207	12SP2	12	2½	20	20	2⅝x2½x3 7/32″	2	8.77
66F208	12L8	12	7½	80	100	5½x6¼x8″	12	25.82
66F209	12S10	12	10	100	125	5½x6¼x9″	14	41.55
66F210	12H15	12	20	150	175	6½x7½x11″	20	57.04
66F211	12SH20	12	26	200	250	8 x9½x13″	35	74.28
66F213	110S15	110	1.7	150	200	5½x6¼x9″	14	41.26
66F214	110H25	110	2.8	250	325	6½x7½x11″	20	51.35
66F216	110SH40	110	4.5	400	600	8 x9½x13″	35	97.46

REPLACEMENT VIBRATORS FOR ABOVE

No.	Mfg. No.	Repl. For	NET
48F077	2563	6L6; 6/12D6; 12L8	6.41
48F087	6VD6H	6H10; 6SH15	14.52
48F088	12VB6H	12S10	8.26

No.	Mfg. No.	Repl. For	NET
48F089	12VD6H	12H15; 12SH20	14.52
48F084	110VB6H	110S15; 110H25; 220H25	8.26
48F085	110VC6H	110H35; 110SH40	14.52

AEROVOX INTERFERENCE FILTERS

IN-105

IN-23

IN-27

IN-28

IN-30

IN-42

Type IN-105. Low-Impedance delta connected capacitor for fluorescent light fixture in bathtub case. Size 1¾″x1″x1¾″.
48F008. NET **1.03**

Type IN-106. Best filter for fluorescents. Balanced network. Especially suited for radio and TV salesrooms. One unit per fixture in series where power leads enter. Metal container with 4 stranded wire leads. Rating: 125V AC or DC; 2.6 amps. Size: 1⅞x3x1⅜″.
48F009. NET **2.23**

Type IN-27. Inexpensive filter to be placed between set and outlet when interference is slight. Also used on appliances causing low intensity interference. Eliminates noise on house wiring and power lines. Size, 1⅜x1½″. Shpg. Wt., 5 oz.
48F031. NET **88c**

Type IN-28. Use where ground is at distance from point of application. Size, 1⅜x2″. Shpg. wt., 8 oz.
48F032. NET **1.18**

Type IN-30. Provides additional filtering action and inductance. Effective in heavier interference. Plug between set and receptacle or preferably between noisy appliance and receptacle. Size, 1⅜x3″. Shpg. wt., 7 oz.
48F033. NET **1.47**

Type IN-42. Recommended for overcoming serious causes of interference. Thorough filtering action. Plugs into electric outlet. Interfering device plugs into receptacle of filter. Size, 2½x3¾″. Rated at 6 amps for 110-220 volts AC. Shipping wt., 1 lb.
48F034. NET **4.41**

SCREEN ROOM FILTERS

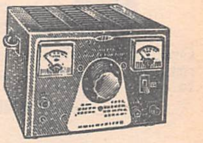
All screen room filters have attenuation equal to or exceeding that of the screen room. Easy mounting arrangements. Hermetically sealed and terminals at both ends are shielded using knock-outs for ¾″ and 1″ conduit. 1¼″ diameter mounting hole on all cases is countersunk to permit flush mounting of the filter on the screen room. Comply with rigid specifications set up by the designers of the most advanced type screen rooms.

Stk. No.	Type	Amp.	Circuits	Max. CPS	Start Freq.	Size (Inches)	NET
48F018	S-1076-1	50	1	60	14kc	20x3⅝x3⅝	93.10
48F019	S-1076-2	50	2	60	14kc	20x7 3/16x3⅝	186.20
48F020	S-1076-3	50	3	60	14kc	20⅛x10⅞x3 11/16	279.30
48F021	S-1142-1	30	1	400	150kc	10⅛x2⅞x2 7/16	35.77
48F022	S-1142-2	30	2	400	150kc	10⅛x4¾x2 7/16	47.53
48F023	S-1303-1	60	1	1000	100kc	20x3⅝x3⅝	98.00
48F024	S-1305-1	100	1	1000	100kc	22x4⅜x4⅜	117.60

POWER SUPPLIES AND BATTERY CHARGERS

ELECTRO DC POWER SUPPLIES

MODEL PS-5 550 WATT DC POWER SUPPLY



Specially designed for servicing equipment up to 55 volts. Includes new higher voltages in aircraft equipment. Ideal for checking and powering 48 volt amplifiers. Other uses include testing transistor circuits, DC motors, relays, phone circuits and low voltage equipment for industrial and military applications. The PS-5 delivers up to 550 watts of well filtered DC power. Specifications—0-55 VDC continuously variable to 10 ADC. Ripple: .5% RMS at max. current. Output voltage changes only .8 volts for each ampere of load change. Impedance is .8 ohms (no-load to FL). Primary fuses for overload protection is included. Panel components: 2 meters—output voltage, output current. Variable voltage knob, on-off switch, fuse, pilot light. 5 way binding posts and output circuit breaker. 117V 50/60 cps input. With rubber feet, carrying handles and rubber covered line cord. Blue hammerloid steel cabinet. 9¾x14¼x14¼". Shpg. Wt. 63 lbs.

66F260. NET............ **250.00**

MODEL EC-2

A versatile low cost D.C. power supply. SPECS: Input 117 volts. 50/60 CPS. DC output: 0-16 volts, 5 amps continuous. Ripple: less than 0.5% at 5 amps. Impedance: 1.8 ohms. Regulation: 1.8 volts-amp (no-load to F.L.). Meters: Combination VOLTMETER/AMMETER. Panel components include on-off switch, pilot light, meter function switch, fuse, variable voltage adjustment and insulated output binding posts. Two-tone gray enamel finish. Carrying handle, rubber feet, and 6 foot line cord are included. 10¾x4⅜x6½". Shpg. Wt. 10 lbs.

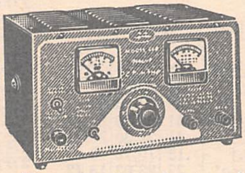
66F261. NET............ **39.95**

MODEL EC-1

Same as Model EC-2 except without meter and function switch. 1.4 ohm impedance and 1.4 volts/amp (no-load to FL) regulation. 12 volts, 5 amp continuous DC output. Net Wt.: 10 lbs. Shpg. Wt.: 11 lbs.

66F262. NET............ **29.95**

MODEL EFB TRANSISTOR DC POWER SUPPLY



For transistor design and servicing, that is also a quality source of power for all types of electronic equipment operating from DC. Features two ranges: 0-32 volts for loads up to 4 amperes, and 0-16 volts for loads up to 8 amperes. Ripple less than 0.1%. Bridge type selenium rectifiers. Dual choke plus Pi type filter circuit and internal bleeder for voltage regulation. On-off switch and 0-32 and 0-16 volt selector switch. Two 2% D'Arsonval movement meters; voltmeter has two scales for ease of reading. For operation from 105-125 volts, 50-60 cps. Size: 12"x7"x8½". Shipping Weight, 33 lbs.

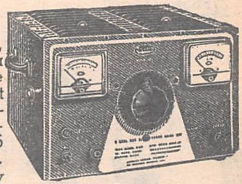
66F145. NET............ **150.00**

MODEL EFBR

Same as above with rack panel, 8¾x19". Shipping weight, 44 pounds.

66F146. NET............ **160.00**

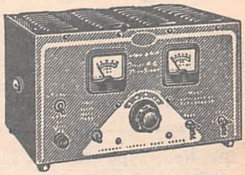
HEAVY DUTY SUPPLY



Model NFB. Built for heavy duty, continuous operation, providing a continuously variable DC voltage source from 0-32 volts for current loads from 0-15 amps. 13% regulation NL to FL. 115 v. 50/60 cyc. input. Less than ¾% AC ripple at 15 amps. Full-view voltmeter 0-50 v. and ammeter 0-25 amps. Blue-grey hammerloid 18 gauge steel cabinet. 14¼x14¼x9¾". Shipping weight. 85 lbs.

66F118. NET............ **250.00**

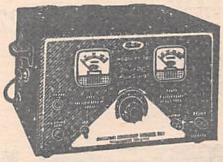
MED. POWER SUPPLY



Model D612T. First for servicing transistor auto radios. Power control incremental voltage adjustment. Rated at 10 amps, 12 v. cont. duty. AC ripple less than 0.5% up to 5 amp. 2% at 10 amp. Has large clear plastic ammeter 0-10 amps DC and voltmeter 0-20 VDC. 0-8/0-16 volt range switch. 115 V. 50/60 cycles AC input. 12x7x8½". Shpg. wt., 22 lbs.

66F119. NET............ **59.95**

HIGH CURRENT DC POWER SUPPLY



Model PS-30. Ideal for 12V mobile communications equipment, marine shore power source, plating, etc. Output voltage adj. above and below 12 VDC with 8-pos. rotary switch. Continuous rating 30 amps., up to 50 amps. for intermittent use. Max. ripple 1%. 0-50A ammeter and 0-20V voltmeter, on-off switch, pilot light, fuse, "five way" output terminals, carrying handles. Uses rugged selenium rectifiers, power transformer, filter-chokes, 40,000 mf. filter capacitor, bleeder resistor. 18 gauge steel cabinet. Blue-grey hammerloid finish. 117V, 50/60 cps input. Size: 16¾"x9¼"x13". Shpg. wt., 68 lbs.

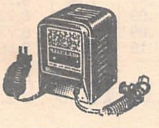
66F147. NET............ **195.00**

MODEL PS-3 REGULATED TRANSISTORIZED DC POWER SUPPLY

Regulated low voltage DC power supply. Extremely low ripple and dual-range output. Utilizes 2% D'Arsonval meter calibrated for 3 ranges. Zener diode reference in multi-transistor regulating circuit. "Floating" output terminals permit use as positive or negative ground. Terminals use standard ¾" spacing. Can't be damaged by heavy overloads or short-circuits. Features: On-off switch combined with voltage adjustment; six-way binding posts; primary circuit fuse; neon pilot light; convenient meter range switches; 6 ft. line cord; grey wrinkle-finish steel, carrying handle; and rubber feet. Input: 110 to 130 V. AC. 60 cps. Output: 0-200 ma. 0-15 v; 0-100 ma. 15-25 v. Regulation: 100 mv max. Size: 6¼x5x6". Shpg. wt., 5 lbs.

66F148. NET............ **79.50**

SCHAUER BATTERY CHARGERS



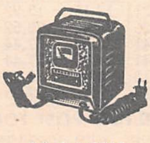
Model K312

Model K312. Economy charger for 12-volt batteries. A small efficient low priced unit for charging 12-volt batteries at a 3 ampere rate. Size: 4¼x4¾x6¼". Wt., 5½ lbs.

66F160. NET.. **13.95**

Model A-3 for 6-volt batteries. 4 amps.
66F166. NET............ 10.24

Model B-3 for 6-volt batteries. 6 amps.
66F161. NET............ 19.95



Model C312

Model C312. 10-ampere Heavy-duty Charger for 12-volt cars, tractors and trucks. Recharges the average battery in 6 hours or less. Size: 6¼x6⅛x7¼". Shpg. weight. 10 lbs.

66F162. NET............ **32.95**

H612A. Battery booster for recharging either 6 or 12V batteries. Operates from 110 V. household electric outlet. 8½' AC input cord, 2—6½' DC output cables. Red finish steel case. Size: 3⅝x3¼x5½". Shpg. wt., 3 lbs.

66F159. H612A. **NET**............ **9.95**

Model B3612. 6-ampere Charger. Charges either 6-volt or 12-volt batteries. Charger is equipped with a selector switch and numeral dial ammeter which shows the exact rate of charge entering the battery. Size 6¼x6⅛x7¼". Wt., 8 lbs.

66F163. NET............ **28.95**

CHARGER PLUGS

Model A-8410. Enables you to charge battery through cigar lighter. For 6 volt system. Shpg. wt., 3 oz.

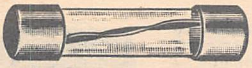
66F164. NET............ 1.75

Model A-8412 as above, but for 12-volt batteries.

66F165. NET............ 1.75

LITTELFUSE FUSES & ACCESSORIES

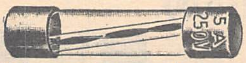
SFE ¼" AUTOMOBILE FUSES



Graduated in length according to current rating. ¼" dia. Shpg. wt., pkg. of 100, 14 oz.

Stk. No	Type 307-	A.	Lgth. inch	1-99	100-499 per 100	500-999 per 100
27F710	004	4	⅝	.03	2.84	2.27
27F711	006	6	¾	.03	2.84	2.27
27F716	07.5	7.5	⅞	.03	2.60	2.08
27F712	009	9	⅞	.03	2.60	2.08
27F713	014	14	1¹⁄₁₆	.03	2.30	1.84
27F714	020	20	1¼	.03	2.30	1.84
27F715	030	30	1⁷⁄₁₆	.04	3.09	2.47

3AG AND 3AB LITTELFUSES U.L. APPROVED THRU 15 AMPS



Type 3AG. For low time-lag use. Max. volt 250 volt except *125 volt. 1¼x¼".

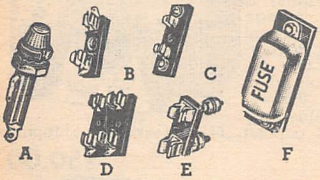
Stk. No.	Type	A	1-99	100-499	500-999
27F651	312.125	⅛	.12	10.29	8.23
27F663	312.175	.175			
27F664	312.187	³⁄₁₆			
27F652	312.250	¼	.08	6.86	5.49
27F667	312.300	.3			
27F653	312.375	⅜			
27F654	312.500	½			
27F655	312.750	¾			

Stk. No.	Type	A	1-99	500-999	100-499
27F656	312001.	1	.05	4.12	3.29
27F657	31201.5	1½			
27F658	312002.	2			
27F659	312003.	3	.04	3.63	2.90
27F660	312004.	4	.06	5.15	4.12
27F661	312005.	5	.06	5.15	4.12
27F662	312006.	6	.06	5.15	4.12
27F665	312008.	8*	.09	7.34	5.88

Type 3AB. Medium time lag, heavier duty fuses. For amplifiers, radios, rectifiers.

Stk. No.	Type	A	1-99	500-999	100-499
27F670	314008.	8	.10	8.33	6.66
27F671	314010.	10	.10	8.33	6.66
27F672	314012.	12	.11	8.82	7.06
27F673	314015.	15	.11	8.82	7.06
27F674	314020.	20	.11	8.82	7.06

FUSE POSTS AND MOUNTS FOR 3AG, 3AB



(*) Screw Slot (†) Lug terminal (**) Covered.

Stk. No.	Type	Fig.	Description	1-99	100-499	500-999
27F760	353001	E	Pnl. Mtg.	.35	29.40	23.52
27F765	351009	F	Dul.**	.65	53.90	43.12
27F750	341001	....	Pnl. mtg.*	.41	34.30	27.44
27F752	342001	A	Finger Knob	.41	34.30	27.44
27F754	357001	B	Pnl. mtg.†	.13	10.78	8.62
27F756	356001	C	Single fuse*	.27	23.03	18.42
27F758	357002	D	Dbl. mtg.	.25	21.56	17.25

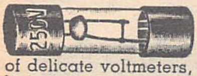
4AG SLO-BLO LITTELFUSES

41300 Series. Meet aircraft vibration test requirements. High time-lag. Spring-and-link construction through 5 amps. Rated 250 volts thru 3.2 amp; 4 thru 30 amp, 32 volts. Size: ¼x⁹⁄₃₂". Wt., pkg. of 100, 10 oz.

Stk. No.	Type	Amps	1-99	100-499 per 100	500-999 Per 100
27F900	413.100	.10	.22	18.13	14.50
27F907	413.150	.15			
27F901	413.200	.20			
27F630	413.250	.25			
27F902	413.300	.30			
27F908	413.400	.40			
27F631	413.500	.50			
27F909	413.600	.60			
27F903	413.800	.80			
27F632	413001	1.00			

Stk. No.	Type	Amps	1-99	100-499 Per 100	500-999 per 100
27F904	4131.25	1.25	.16	13.72	10.98
27F910	41301.6	1.60			
27F633	413002	2.00			
27F911	41302.5	2.5			
27F634	413003	3.			
27F912	41303.2	3.2			
27F905	413004	4.			
27F635	413005	5.			
27F906	4136.25	6.25			
27F913	413008	8.			
27F636	413010	10.			
27F637	413015	15.			
27F638	413020	20.			
27F639	413025	25.			
27F640	413030	30.			

8AG INSTRUMENT LITTELFUSES

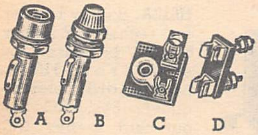


361000 Series. Extremely quick acting for protection of delicate voltmeters, microammeters, milliammeters, etc. 1x¼". 100, 10 oz. Max. voltage 250 except (*) 32.

Stk. No.	Type	Amps	1-99	100-499 per 100	500-999 per 100
27F608	361.750	¾	.08	6.37	5.10
27F609	361001.	1	.06	4.90	3.92
27F610	36101.5	1½			
27F611	161002.	2			
27F612	361003.	3			

Stk. No.	Type 361-	Amps	For O/V VM	1-99	100-499	500-999
27F615	004*	4	....	.06	4.90	3.92
27F613	005*	5	....			
27F616	020*	20	....			
27F614	002	1/500	250	.82	68.11	54.49
27F600	005	1/200	1000 Up	.34	28.42	22.74
27F601	010	1/100	1000	.31	25.48	20.38
27F602	031	1/32	500-1000	.26	22.05	17.64
27F603	062	1/16	100-500	.16	13.72	10.98
27F604	125	1/8	20-100	.12	10.29	8.23
27F605	250	1/4	10-20	.08	6.37	5.10
27F606	375	3/8	5-10			
27F607	500	1/2	3-5			

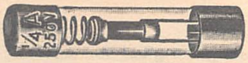
8AG FUSE MOUNTINGS



(*) Screw Slot. (†) Lug terminal.

Stk. No.	Type	Fig.	Description	1-99	100-499 per 100	500-999 per 100
27F759	383002	D	Meter-back mtg.	.21	17.15	13.72
27F761	383001	....	Panel mtg.	.35	29.40	23.52
27F751	371001	A	Pnl. Mtg.*	.41	34.30	27.44
27F781	372001	B	Finger-Knob	.41	34.30	27.44
27F755	387001	....	Sgl. fuse†	.13	10.78	8.62
27F757	387002	C	Dbl. fuse mtg.	.25	21.56	17.25

3AG SLO-BLO FUSES



For circuits with high inductive surge or heavy starting current. wt/100. 14 oz.

Stk. No.	Type	Amps	1-99	100-499 Per 100	500-999 Per 100
27F680	313010	.01	.23	19.11	15.29
27F681	313.032	.032	.23	19.11	15.29
27F682	313.062	.062	.16	13.72	10.98
27F683	313.100	.1			
27F915	313.125	.125			
27F684	313.150	.150			
27F666	313.175	.175			
27F916	313.187	.187			
27F685	313.200	.200			
27F686	313.250	.250			
27F687	313.300	.300			
27F917	313.375	.375			
27F688	313.400	.400			
27F689	313.500	.500			
27F690	313.600	.600			
27F699	313.700	.700			
27F618	313.750	.750			
27F691	313.800	.800			
27F692	313001	1.00			
27F693	3131.25	1.25	.15	12.74	10.19
27F705	31301.5	1.50			
27F919	31301.6	1.60			
27F694	313002	2.00			
27F695	31302.5	2.50	.12	10.29	8.23
27F920	313003	3.00			
27F706	31303.2	3.20			
27F696	313004	4.00			
27F697	313005	5.00			

3AG 32 VOLT SLO-BLO LITTELFUSES

Withstands 110% rated load indefinitely. 135% up to 1 hour. 200% for 5 to 60 sec.

27F700	3136.25	6¼	.12	10.29	8.23
27F701	313008.	8			
27F702	313010.	10			
27F703	313015.	15			
27F704	313020.	20			

3AG LITTELFUSES—32 VOLT OR LESS

Straight type fuse element positioned to center of fuse. Wt., pkg. of 100 14 oz.

27F724	311005.	5	.03	2.60	2.08
27F725	31107.5	7½			
27F726	311010.	10			
27F728	311015.	15			
27F730	311025.	25	.04	3.09	2.47
27F731	311030.	30	.04	3.09	2.47

3AG PIGTAIL LITTELFUSES

1½" pigtails, No. 20 tinned copper wire.

125 VOLT SLO-BLO

27F928	315.100	.1	.21	17.15	13.72
27F734	315.250	.25			
27F735	315.300	.3			
27F737	315.500	.5			
27F930	315.600	.6			
27F932	315001.	1.0			
27F934	31501.5	1.5	.19	16.17	12.94
27F935	31501.6	1.6			
27F936	315002	2.0			
27F937	315003	3.0	.16	13.72	10.98
27F940	315004	4.0			
27F941	315005	5.0			

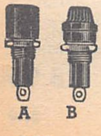
250 Volts

27F739	318.125	.125	.15	12.74	10.19
27F943	318001	1.0	.09	7.84	6.72
27F945	318002	2.0	.09	7.84	6.72
27F946	318003	3.0	.09	7.84	6.72
27F948	318005	5.0	.10	8.33	6.66
27F740	318.250	.25	.12	10.29	8.23
27F741	318.375	.375			
27F742	318.500	.500			
27F743	318.750	.750			

INDICATING AND STANDARD FUSE POST FOR 3AG

Indication Fuse Posts are knobs. 2½-32 volts have amber color knobs with incandescent bulb. 90-250 volts has clear knob with neon bulb. Maximum current ratings 20 amps. Overall length: 2⅜". Front of panel: ¹³⁄₁₆". Mounting hole ⅝" dia. Average Shpg. wt., 3 oz.

INDICATING TYPE



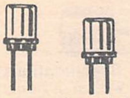
Stk. No.	Type	Fig.	Description	1-99	100-499 Per 100	500-999 Per 100
27F790	344006A	B	2½ to 7 Volts	2.16	1.80	1.44
27F791	344012A	B	6-16 Volts	2.16	1.80	1.44
27F783	344024A	B	16-32 Volts	2.16	1.80	1.44
27F784	344125A	B	100-125 Volts	1.32	1.10	.88
27F785	344250A	B	200-250 Volts	1.32	1.10	.88

STANDARD TYPE

Stk. No.	Type	Fig	Description	1-99 Per 100	100-499 Per 100	500-999 Per 100
27F720	342012	B	minature	.30	25.40	20.38
27F780	342005	A	dustproof	.41	34.30	27.44
27F779	342004	B	miniature	.35	29.40	23.52
27F668	342014	B	miniature	.30	25.48	20.38
27F669	342022	B	miniature	.35	29.40	23.52
27F678	362005	B	miniature	.03	2.60	2.08

LITTELFUSE

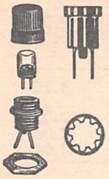
● *NEW* SUBMINIATURE MICROFUSES



Only .250" dia. x .348" long exclusive of leads. Ideal for printed circuits. Features low resistance and high reliability in ultra-fast blowing characteristics. Series 279000 has 1 inch leads for wiring into circuit. Series 273000 has .170 inch leads for plugging into subminiature fuse holder (below). Blowing specifications: 110% life; 200% 0-10 seconds. Rated at 125 V.

272000 Plug-in Type Stk. No.	Type	278000 Pigtail Type Stk. No.	Type	Amps.	1-99 Each	100-499 per 100	500-999 per 100
28F060	273.002	28F083	279.002	1/500	1.00	83.79	67.03
28F061	273.005	28F084	279.005	1/200			
28F062	273.010	28F085	279.010	1/100			
28F063	273.015	28F086	279.015	1/64			
28F064	273.031	28F087	279.031	1/32			
28F065	273.050	28F088	279.050	1/20	.84	70.07	56.06
28F066	273.062	28F089	279.062	1/16			
28F067	273.100	28F090	279.100	1/10			
28F068	273.125	28F091	279.125	1/8			
28F069	273.200	28F092	279.200	2/10			
28F070		28F093	279.250	1/4			
28F071	273.300	28F094	279.300	3/10			
28F072	273.400	28F095	279.400	4/10			
28F073	273.500	28F096	279.500	1/2			
28F074	273.600	28F097	279.600	6/10			
28F075	273.700	28F098	279.700	7/10			
28F076	273.800	28F099	279.800	8/10			
28F077	273.001	28F100	279001	1			
28F078	27301.5	28F101	27901.5	1½			
28F079	273002	28F102	279002	2			
28F080	273003	28F103	279003	3			
28F081	273004	28F104	279004	4			
28F082	273005	28F105	279005	5			

● *NEW* MICROFUSE HOLDER



Type 281002. Front panel mount microfuse holder. Molded from high strength, high dielectric material. Knurled cap for easy grip. Rugged 'eye' type plated brass terminals separated by molded barrier to provide complete insulation. With positive 'O' ring seal.

28F111. NET......

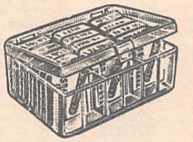
List—.97; 1-99—.53; 100-499—.49; 500-999—.39

Type 281001. Subminiature plug-in.

28F106. NET......

List—.43; 1-99—.25; 100-499—.21; 500-999—.17

FUSE CADDIES



Type 094041. Fast and accurate fuse selection. Contains 15 different boxes (5 fuses per box) of type C (regular) and N (Slo-Blo) limited current fuses marked by * in table. Rated 250 volts, except 7 amperes, 125 volts. Clear plastic case has 3 spare compartments. Size is 1⅞"x3"x4¼". Shipping weight is 2 pounds.

27F676. NET...... **10.85**

Type	Amps	Type	Amps	Type	Amps
C	.3*	N	.6*	3AG	.2†
C	.5*	N	.7*	3AG	.3†
C	.75*	N	1*†	3AG	.5†
C	2*	N	1.25*†	3AG-S.B.	.25†
C	2.5*†	N	1.6*	3AG-S.B.	.5†
C	7*	N	2*	8AG-U.L.	.25†
N	.25*†	3AG	.25†	8AG-U.L.	.5†
N	.3*	3AG	.5†		
N	.5*	3AG	1†		

Type 094037. Designed for laboratory use. Fast and accurate fuse selection. Contains 14 boxes of fuses (types indicated by †) Also includes emergency kit with various radio fuses. 2 lbs.

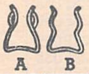
27F677. NET...... **7.88**

● *NEW* INDICATING MICROFUSE HOLDER

Type 284000. Indicator lamp glows when the fuse is blown. Knob molded from transparent material. Positive 'O' ring seal. High dielectric material.

Stk. No.	Type	Desc.	List	1-99	100-499	500-999
28F107	284004	6 volt range	3.68	2.16	1.84	1.47
28F108	284005	12 volt range	3.68	2.16	1.84	1.47
28F109	284006	24 volt range	3.68	2.16	1.84	1.47
28F110	284003	125 volt range	2.25	1.32	1.13	.90

LITTELFUSE CLIPS



Phosphor bronze except * Beryllium copper. Shpg. wt., per 100, 5 lbs.

No.	Type	Fig.	For	1-99	100-499	500-999
27F772	101001	A	3AG	.02	1.37	1.10
27F773	101002	B	3AG	.02	1.37	1.10
27F774	105002	B	5AG	.04	3.33	2.67
27F775	123002*	B	4AG	.06	4.90	3.92

TYPE N FUSES

Fuse carries two ears. Which vary in width for each ampere range. Slots in the top of the holder are made to match the ears on the fuses of each specific range. Three lengths o ffuses are used.

No.	Amps	Net Each	100 for Each
27F996	1/4	.18	.15
27F997	3/10		
27F998	4/10		
27F999	1/2		
28F000	6/10		
28F001	7/10		
28F002	3/4		
28F004	1		
28F006	1-6/10		
28F008	2		
28F009	2½		
28F013	4		
28F014	5		

Type C. Same as N.

No.	Amps	Net Each	100 for Each
28F021	¼	.10	.08
28F022	3/10		
28F023	3/8		
28F024	½		
28F025	3/4		
28F026	1		
28F030	2		
28F033	3½		
28F034	4		

IN-LINE FUSE RETAINER

Type 155020A. Bakelite fuse-holder for all 3AB and 3AG fuses. With 19" insulated lead. Shpg. wt., 3 oz.

Stk. No.	Type	1-99	100-499 Per 100	500-999 Per 100
27F766	155020A	.31	25.73	20.58

BUSSMANN PRODUCTS

TYPE ABC CERAMIC FUSES

High interrupting capacity fuses for use on circuits capable of delivering currents as high as 25,000 amperes at 125 volts or 10,000 amperes at 250 volts. ¼x1¼".

No.	Amps.	Volts	Each	100 for
27F952	2	250	.11	8.82
27F953	3	250		
27F954	5	250		
27F955	6	250	.10	8.33
27F956	8	250		
27F957	10	250		
27F958	12	250		
27F959	15	250		
27F960	20	250		
27F961	25	125	.13	10.78
27F962	30	125		

BUSS FUSE BLOCKS

Molded bakelite. Height 17/64 inch. Have one mounting hole. Countersunk for No. 6 flat head screws. Type 4520 (¼x1") for fuse types AGX, SFE 7½, SFS9. Type 4405 (¼x1¼") for AGC, ABC, MDL, MBW, MTH, SFE20.

28F040. Type 4520. **NET**...... **13c**

28F041. Type 4405. **NET**...... 13c

TV SNAP-ON FUSE HOLDERS

Type 094025. For fast, safe replacement of TV pigtail fuses, stay-on blown pigtail, use regular fuse in other side. No soldering. Less fuses. Wt., 2 oz.

27F748. NET...... 18c

Plastic box of 10. NET...... 1.47

"MDL" FUSETRON DUAL-ELEMENT FUSES

Fuses with a long time lag. Avoid needless blows from starting currents or surges. At 200% load the approximate blowing time is 25 sec. Size: ¼x1¼". Weight, 1 lb. per 100.

No.	Amps.	Volts	Each	100 for
27F822	1/100	250	.23	19.60
27F823	1/32	250		
27F824	1/16	250	.17	13.72
27F825	1/10	250		
27F826	15/100	250		
27F827	2/10	250		
27F828	3/10	250		
27F829	4/10	250		
27F830	1/2	250		
27F831	6/10	250		
27F832	8/10	250		
27F833	1	250		
27F834	1¼	125	.16	12.74
27F835	1-6/10	125		
27F836	2	125		
27F837	2-1/2	125	.13	10.78
27F838	2-8/10	125		
27F839	3-2/10	125		
27F840	4	32		
27F841	5	32		
27F842	6-1/4	32		
27F843	8	32		
27F844	10	32		
27F845	20	32		
27F846	25	32		
27F847	30	32		

FUSES & ACCESSORIES

FUSETRON PLUG FUSES

Dual element fuses will not blow on a heavy current that lasts only a short time, yet a 15 amp Fusetron fuse will protect on dangerous overloads or on short-circuits where ordinary 15 ampere fuse will fail. Fuses contain both a thermal cutout and a fuse.

No.	Amp	NET	No.	Amp	NET
27F850	2	Each 14c	27F857	10	@ .14 100 for 12.75
27F851	2½		27F858	12	
27F852	3-2/10				
27F853	4	100 for 12.75	27F859	15	@ .08 100 for 6.88
27F854	5		27F860	20	
27F855	6¼		27F861	25	
27F856	8		27F862	30	

CABLE FUSE RETAINER

Especially made for auto radio power supply cables. Holds 3AG fuses. All metal construction. Size: 2½x3⅜". 2 oz.

31F961. NET 12c

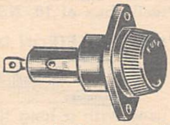
BUSS FUSES AND HOLDERS

TYPE AGX FAST-ACTING FUSES

Provides high speed action necessary to protect sensitive instruments or delicate apparatus. 1/16 to 2 ampere sizes have straight through element. U. L. approved. Size: ¼"x1".

No.	Amperes	Volts	Each	100 for
27F973	1/500	250	.83	70.00
27F974	1/200	250	.35	29.00
27F975	1/100	250	.31	26.00
27F976	1/32	250	.27	23.00
27F977	1/16	250	.17	14.00
27F978	1/10	250	.13	11.00
27F979	1/8	250	.13	11.00
27F980	3/16	250	.13	11.00
27F981	1/4	250	.08	7.00
27F982	2/10	250	.13	11.00
27F983	3/8	250	.08	7.00
27F984	4/10	250	.08	7.00
27F985	½	250	.08	7.00
27F986	3/4	125	.08	7.00
27F987	1	125	.05	4.20
27F988	1½	125	.05	4.20
27F989	2	125	.05	4.20

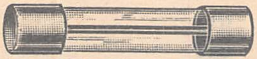
PANEL MOUNTED HOLDER



Type HPC. Screw type knob. Strong coil spring insures contact pressure on ends of fuse. Mounts on panels of any thickness with flange outside, on panels up to ⅛" thick with flange on rear side. Fits 13/32x1½" FNM fuses. Body of sturdy molded black phenolic. Rating 15 amps. U.L. Approved.

27F818. NET **48c**

TYPE MTH FUSES



Formerly called 3AG. Test Specifications carry 110%, open at 135% within 1 hour. Listed as approved by Underwriters Laboratories. Size: 1¼"x¼".

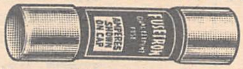
No.	Amperes	Volts	Each	100 for
27F877	4	250	.06	5.30
27F878	5	250		
27F879	6	250		

TYPE GLD INDICATING FUSES

Fibre tube, silverplated indicating pin extends from end of fuse when fuse is blown. If desired indicating pin can be used to actuate a signal by using fuses in a HKA fuse holder.

No.	Amps.	Volts	Each	100 for
27F964	¾	125	.40	33.00
27F965	1	125	.30	25.00
27F966	2	125		
27F967	3	125		
27F968	5	125		

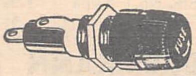
"FNM" SLOW-BLOWING FUSES



Dual element, fibre tube, slow blowing fuses avoid needless blows from starting currents or surges. Fuse link operates only on very high overloads, or short circuits. A thermal cutout functions on low overloads, and cannot operate quickly at any load, hence long time lag is obtained. Yet, complete protection is provided against shorts. 13/32"x1½".

No.	Amps.	Volts	Each	100 for
27F863	½	250	24c	20.39
27F864	1	250		
27F865	1-6/10	250		
27F866	2	250		
27F867	3-2/10	250		
27F868	4	250		
27F869	5	250		
27F870	10	250		
27F872	2½	250		
27F873	6-1/4	250		
27F874	8	250		
27F875	12	125		
27F876	15	125		

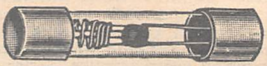
PANEL MOUNTED HOLDERS



Removable bayonet type knob makes changing fuse easy. Will not shake loose. Use on panels up to 5/16" thick. Wire hole .115". Carrying cap.: HJM and HKP, 15 amps; HCM, 18 amps. HKP is U. L. Approved for 15 amps., HJM for 5 amps. Shpg. wt., HJM and HKP, 4 lbs per 100; HCM, 5 lbs. per 100.

No.	Type	For Fuses	NET
27F819	HJM	¼x1"	.31
27F820	HKP	¼x1¼"	.31
27F821	HCM	9/32x1¼ & 1¼x1¼"	.44

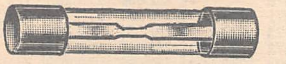
TYPE MDX FUSES



These fuses have the same specifications as Type MDL. The only main difference being that at a load of 200% the fuse blows in approximately 12 sec.

No.	Amps.	Volts	Each	100 for
27F890	1-1/4	250	.19	16.00
27F891	1-1/2	250		
27F892	1-6/10	250		
27F893	2	250		
27F894	3	125	.13	11.00
27F895	3-2/10	125		
27F896	4	125	.14	12.00
27F897	5	125		
27F898	6-1/4	125		
27F899	7	125		

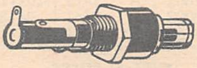
TYPE AGC FUSES



Formerly called 3AG. Test Specifications —carry 110%, open at 135% within 1 hour. Approved by Underwriter's Laboratories. Size: ¼x1¼".

No.	Amperes	Volts	Each	100 for
27F880	3	250	.04	3.70
27F881	4	32		
27F882	5	32	.03	2.70
27F883	6	32		
27F884	7½	32		
27F885	10	32		
27F886	15	32		
27F887	25	32	.04	3.20
27F888	30	32		
28F050	1/32	250	.27	23.00
28F051	1/16	250	.13	11.00
28F052	⅛	250	.13	11.00
28F053	¼	250	.08	7.00
28F054	⅜	250		
28F055	½	250		
28F056	¾	250		
28F057	1	250	.05	4.20
28F058	1½	250		
28F059	2	250		

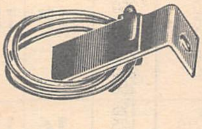
LAMP INDICATING FUSEHOLDERS



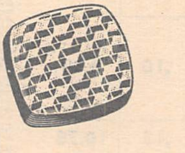
Body of molded phenolic. With strong coil spring to provide constant contact pressure at ends of fuse. Bayonet type octagon knob. Transparent knob permits indicating light to be readily seen. For ¼x1¼" fuses. "X" has flat sided knob.

No.	Type	Volts	Color	NET
27F813	HKL	90 to 300	Clear	1.29
27F814	HKL-X	90 to 300	Clear	1.29
27F815	HKR	22 to 33	Amber	2.10

INTERNATIONAL RECTIFIER



A



B

PHOTOCELLS AND SUN BATTERIES

These cells and sun batteries may be used for powering transistorized radios, building light meters, operating small motors, relays from sunlight. Selenium cells are used extensively in light meters and other photographic and optical devices. Silicon cells have higher light conversion efficiency particularly in sunlight. The S types are the same kind as used for battery charging in space vehicles. All types listed are supplied with flexible leads and provisions for mounting. Case Dimensions: 1⅛"x1⅛"x3/16".

SELENIUM CELLS

No.	Type	Fig.	Description	Output*	MA	1-9	10-99
64F021	B2M†	A	½" x ¾"	1/3 to 0.4v	2	1.50	1.35
20F1434	B3M	B	In molded plastic case	1/3 to 0.4v	1½-2½	1.75	1.55

SILICON CELLS

No.	Type	Fig.	Description	Output*	MA	1-9	10-99
20F1435	S1M	B	In molded plastic case	0.3 to 0.45v	10-16	2.25	2.00
20F1436	S3M	B	Contains 2 elements in series	0.6 to 0.85v	10-16	3.95	3.51
20F1437	S5M	B	High efficiency type	0.6 to 0.85v	18-25	4.95	4.40

*Output measured in full sunlight, using conventional volt and milliamp meters. †With mounting bracket.

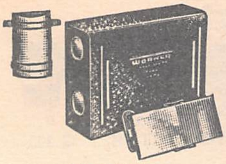
CADMIUM SULPHIDE PHOTO CELL

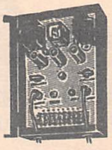
Type CS-120M6. "Light Sensitive" resistors for activating relays. For door-openers, burglar alarms, traffic and industrial counters, turning on lights, etc. Size: 1⅛"x1⅛"x3/16". Max. voltage 120 AC or DC; 0.2 Watt. Shpg. wt.. ¼ lb.

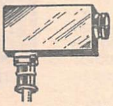
20F1456. NET **2.35**

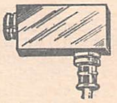
CRYSTALS AND PHOTOELECTRIC EQUIPMENT

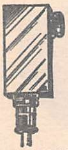
WORNER PHOTOELECTRIC SYSTEMS


Model 61


Model 66


Model M-37


Model M-27


M-36

M-26

Model 61. Electronic Receptionist. Sounds a pleasant chime when light beam is broken by person passing. Includes Exciter Lamp and Photo Cell units, mirror and chime with plug and cord. Unit is 10¾x6½x2¾". Shpg. wt., 8 lbs.
64F050. NET.. **40.50**

Model 66 Electronically Operated Relay. Designed to be used with miniature sets listed above. Up to 900 counts per minute with equal "on-off" periods. With DPDT relay rated at 110VAC, 60 cps. 10 amps non-inductive, 5A inductive. Equipped with light beam intensity control. Size: 7⅛x5¼x10¼". Shpg. wt., 20 lbs.
64F067. NET.. **131.10**

ELECTRIC LAMP KIT

Model 39. Equipped with 21CP bulb. Projects diffused beam 15 feet. Easy to assemble. Ideal with Model 69 listed below. 4⅝x4¾x2½". Wt., 4 oz.
64F052. NET.. **12.45**

JAMES KNIGHT

Type H-9 100 kc Crystals. Ideal for basic units of Secondary Frequency Standard. Wire mounted. Silver plated. Black phenolic base and aluminum can. Moisture-proof. 2x1⅛" diameter. ½" pin spacing. Wt., 4 oz.
27F490. NET.............................. **7.95**

BLILEY COMMERCIAL CRYSTALS

KV3

MC9

Provide high temperature stability for close frequency tolerances in transmitters, receivers, etc. In compact holders.

Type KV3. Precision 100 kc crystal. Tolerance ±.005%. Includes recommended oscillator circuit. Mounts in octal socket. Wt., 3 oz.
27F458. NET.. **8.50**

Type MC9. Available at all exact frequencies from 3-12 mc, ±.03%. Specify frequency desired. 3 oz.
27F460. NET.. **6.50**

MINIATURE FOTOELECTRIC SETS

Miniature exciter lamps and photocell units which will fit the smallest space limitations. Diverging beam will detect an object as small as 1" sq. at up to 8' away. Has pin point detection on cross over beam at distances from 3" up to 12". One piece machined aluminum body. With 6 feet of cable. Available in vertical and horizontal mtg. styles. Size: 1¼x¾x2½". Shpg. wt., 11 oz.

Model M-36. Vertical Exciter Lamp.
64F063. NET.............................. **24.96**

Model M-26. Vertical Photocell Unit.
64F064. NET.. 28.31

Model M-37. Horizontal Exciter lamp.
64F065. NET.. 24.96

Model M-27. Horizontal Photocell Unit.
64F066. NET.. 28.31

TWO UNIT FOTOELECTRIC SYSTEM

Model 4000. 2-unit combination. Designed for indoor use only. An ideal local alarm system for the home, office, store, garage, workshop or wherever an invisible light beam, not to exceed 50 ft. will cover the area to be protected. Set consists of matching exciter lamp unit and Electronically operated relay with photo cell. Relay unit provides 6 volt AC for powering alarm system. Size, each unit, 5x5x5½". For 110 volt, 60 cycle AC. Shpg. weight, 20 lbs.
64F061. NET.. **63.00**

EXPERIMENTAL KIT

Model 69. Designed for those interested in principles of electronic control. Relay Photo-Cell Kit operates on incandescent light that provides light density to cell. Relay contacts rated 2 amps inductive. 5 amps non-inductive. 110 volts, AC. 5⅛x5¾x2". Wt., 3 lbs.
64F051. NET.. **16.80**

CLAIREX PHOTOCELLS

● NEW CLAIREX PHOTOCONDUCTIVE CELLS

CLAIREX
CRYSTAL
PHOTOCELL
CL-2-P

Type CL-2P. Cadmium sulfide photoconductive cell. Has minimum sensitivity of 50 microamperes at 2-foot candles and 100 volts. Median sensitivity is 100 microamperes. Size: ¼" dia., ½" long. Leads extend 1⅝" from housing. Current is substantially linear with voltage for all levels of light intensity. Shpg. 3 oz.
64F023. NET.............................. **4.00**

Model 5-I series, replaces CL-3 Light controlled variable resistors unique design components for automation and control applications such as photography, computers, med. electronics, ind. control, instrumentation, missile and aircraft. Hermetically sealed. Fast response of Cadmium Selenide. Power disp. ½ watt, continuous. High ratio of light to dark current at low light levels. Stable and closely controlled Parameter. Low resistance type for transistors and other low voltage applications. A variety of spectral response and resistance. Oper. temp. —50° to +75°C.

Stk. No.	Type	Encl.	Spec. Resp.	Volt max.	Watt	Light* Rest.	NET
63F900	CL-603	.25x.5	7350	300	75mw	133K	4.00
63F901	CL-603A	.25x.5	7350	300	75mw	75K	
63F902	CL-603AL	.25x.5	7350	60	75mw	3.5K	
63F903	CL-604	.25x.5	6900	300	75mw	30K	
63F904	CL-604L	.25x.5	6900	60	75mw	1.5K	
63F905	CL-605	.25x.5	5500	300	75mw	166K	
63F906	CL-605L	.25x.5	5500	60	75mw	7.5K	
63F907	CL-607	.25x.5	6150	300	75mw	133K	
63F908	CL-602	.25x.5	5150	300	75mw	1M	
63F909	CL-504	.5x.5	6900	250	500-250	1.5K	
63F910	CL-504L	.5x.5	6900	60	500-250	.25K	
63F911	CL-505	.5x.5	5500	250	500-250	9K	
63F912	CL-505L	.5x.5	5500	60	500-250	1.5K	
63F913	CL-402S	.265x1	5150	300	75mw	1M	
63F914	CL-403S	.265x1	7350	300	75mw	133K	
63F915	CL-404S	.265x1	6900	300	75mw	30K	
63F916	CL-407S	.265x1	6150	300	75mw	133K	
63F917	CL-605IL	.25x.5	5500	300	75mw	7.5K	
63F918	CL-505IL	.5x.5	5500	60	500-250	1.5K	
63F919	CL-404SL	.265x1	6900	60	75mw	1.5K	
63F920	CL-403ASL	.265x1	7350	60	75mw	3.5K	

*Resistance measured at 2 foot-candles, 25°C.

PETERSEN PR CRYSTALS

A

B

C

Petersen "PR" Crystals. Low drift, less than 2 cycles per MC per degree Centigrade. High activity, stability and output. .486" pin spacing. Sealed against contamination and moisture. Average ship. weight 8 ounces.

TYPE Z-9A RADIO CONTROL

Fig. B. For radio control of model airplanes and boats. Frequency 27.255 Mc., Tolerance .005%. Shpg. Wt. 4 oz.
27F489. NET.. 2.95

TYPE 2XP

Fig. A. Special crystals outside Amateur bands. Suitable for converters, experimental, etc.

Stock No.	Frequency Range	Tolerance	Net
27F478	1600 to 12000 Kc. (Fund.)	± 5 Kc.	3.45
27F479	12001 to 25000 Kc. (3d Mode)	± 10 Kc.	4.45

TYPE Z-1 MARS CRYSTALS

Fig. A. Official assigned transmitter frequencies in the range. Frequency range 1600 to 10000 Kc., Tolerance .005%. Shpg. Wt., 4 oz.
27F474. NET.. **3.45**

TYPE Z-1 CAP CRYSTALS

Fig. A. Official assigned transmitter frequencies in the range. Frequency range 1600 to 10000 Kc., Tolerance .005%. Shpg. wt., 4 oz.
27F475. NET.. **3.45**

TYPE Z-1 AIRCRAFT

Fig. A. Frequency 3023.5 Kc., Tolerance .005%., Shpg. wt., 4 oz.
27F476. NET.. **3.45**

TYPE Z-9R UHF AIRCRAFT

Fig. B. For Lear, Narco and similar equipment operating in the 121 Mc. region, requiring crystals in the 30 Mc. range. Shpg. wt., 4 oz.
27F477. NET.. **4.95**

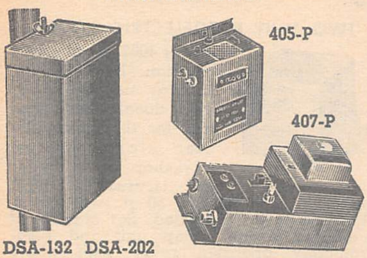
TYPE Z-6A

Fig. C. 100 Kc., Frequency Standard. Shpg. wt., 4 oz.
27F491. NET.. **6.95**

JERROLD TV DISTRIBUTION SYSTEMS

NEWARK CARRIES COMPLETE LINES

AMPLIFIERS



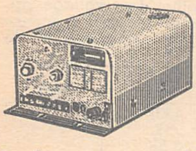
ANTENNA MOUNTED TV/FM PREAMPLIFIERS

Model DSA132. High gain (25 db) minimum low noise. Channels 2 thru 13. For use in extreme fringe areas. Impedance 75 or 300 ohms. Comes with power supply that delivers 24 V to amplifier thru down lead. On-off switch on power supply. Amp. size 5x5x10¼". Power supply, 120 V 60 cycle. Shipping wt., 12¾ lbs.
92F850. Model DSA-132. **NET**........**71.70**

DE-SNOWER TV/FM PREAMPLIFIERS

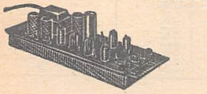
Model DSA-202 "De Snower." Preamplifier. Same general characteristics as DSA132; added features: Amplifies FM and FHHTV band (20 d.b. minimum). Low power consumption 25 watts. Input impedance 300 ohms. Out-put impedance 75 or 300 ohms. Compensating switch for varying cable lengths. Complete with power supply. 22/27 volts output. 120 V 60 cycle input. Size: 4x8½x4". Shpg. Wt. 12 lbs.
92F851. Model DSA-202. **NET**........**53.97**

BROAD BAND DISTRIBUTION TV AMPLIFIER



Model 2300. High gain, high output TV distribution amplifier which covers channels 2 to 13. Undistorted reproduction of signals over long distances of coaxial cable. Designed for large systems — hotels, motels, etc., which operate 24 hrs. continuously. 38 db gain. 75 or 300 ohm input; 75 ohm output. Rated inp. (max.): 26,000 uv; Outp. (max.) .3v./ch./7 ch. oper. Has built-in tilt controls. Complete with coax connectors and ground clamp for lightning protection. Silver-gray metal cabinet. For 110-120 v., 60 cycle AC. Size: 11x7¼x5¼". Wt., 10 lbs.
92F852. NET........**107.70**

● *NEW MODEL 2880 BROADBAND AMPLIFIER*



Ideal distribution system for apartment building, hotels, schools and similar installations where extra-long cable runs are required. 1v./channel/7 channel operation both low and high band channels, minimum gain of 45 db, manual gain control and automatic overload control. Input 75 ohms, output 75 ohms. High transconductance and low distortion 19" relay rack mounting. Panel 19"x7" 105 watts, 117 VAC. 60 cycles.
92F835. NET........**178.80**

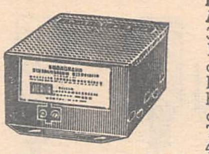
● *NEW OC-238 OVERLOAD CONTROL*

Especially designed for use with Model 2880, or Model 2300. Has separate controls for high and low band. Permits setting the amplifier output at the optimum level. Unit is energized from the amplifier to which it is connected.
92F836. NET........**112.80**

TV DISTRIBUTION SYSTEM HANDBOOK

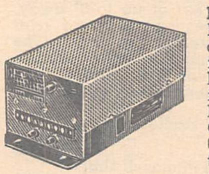
Prepared by Jerrold Electronics Corp. Provides 150 layout charts, with explanations, covering typical situations encountered in planning TV distribution systems. Covers layout calculations, antenna erection, coaxial cable and channel freq. with service recommendations. 48 pp. Size: 6x9".
92F859. Postpaid in U.S.A........ **25c**

● *NEW TV/FM BROAD-BAND AMP*



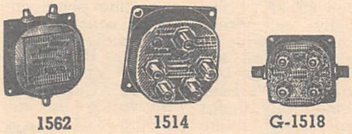
Model ACL-200 Amp. With 75 and 300 ohm outputs. 177VAC source, 20 db gain on low-band 19 db on high. Flat response on FM and color TV. Handles up to 40 sets. High FM overload capabilities. 9x5¾x3½". Wt., 5 lbs.
92F837. NET........**38.97**

DISTRIBUTION TV AMPLIFIER



Models ABD1. Broad band TV distribution amplifiers featuring a low noise cascade input and wide band response. Channels 2 thru 6 and channels 7 thru 13. Universal antenna input system either 75 or 300 ohms. 75 ohms impedance output. Has built-in power supply. Gain is 25 db. minimum 0.1 V output. Output may be divided by using Jerrold 156 or Model 1514 reactive splitters. For 110-120 V 50-60 Cycle AC. Silver gray metal cabinet. Size 11x5x4". Shpg. wt., 7½ lbs.
93F853. NET........**65.67**

AMPLIFIER OUTPUT SPLITTERS

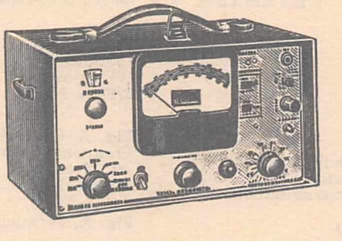


Model 1562. A hybrid two way splitter with 3 db forward loss in each leg. Branches amplifier outputs into 2 or more trunks with min. loss. Isolation in between outputs—15-20 db. Supplied with all connectors. Size: 2¼x2¼x1⁵⁄₁₆". Shipping wt., 8 ounces.
92F855. NET........**4.95**

Model 1514. Same as above except four way splitter with 6 db. forward loss each leg. Isolation between outputs 12 db. Supplied with all connectors.
92F856. NET........**8.70**

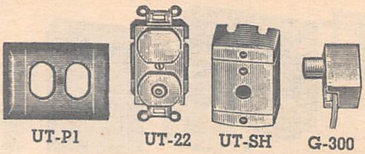
Model G1518. Impedance matched designed for splitting of transported signal over coaxial cables. 54-216 Mc. 10db max. 75 ohm impedance. Gamma chassis fitting and push on coaxial cable connectors. provides 8 way split. Supplied with all connectors. 3"Lx2⁵⁄₁₆"Wx1⁵⁄₁₆"H. Wt., ½ lb.
92F838. NET........**17.70**

FIELD STRENGTH METER



Model 704B. A calibrated direct reading field strength meter for TV and FM measurements. Useful for field intensity surveys, orienting antennas, gain, etc. Calibrated in uv and db. Reads down to 5 uv and up to 3 volts. Freq. range 54 to 220 mc. RF range: 0-30,000 uv. ± .8 db accuracy over entire range. Bandwidth 0.6 mc. For 105-125 v., 50-60 cycle AC. Size: 12x12¾x8". Aluminum cabinet. Wt., 24 lbs.
92F858. NET........**395.00**

ULTRA TAP COMPONENTS



Model UT-22. Provides a choice of three isolation and feed-thru signals TV/FM from coaxial line. Fits standard 2"x4" wall box. Can be mounted flush or surface fitted. Simple crimp on bushing with positive gripping, solderless. Gamma receptacle 75 or 300 ohm push-on plugs.
92F840. NET........**2.70**

See chart below for (I) Isolation and (FT) Feed-Thru losses.

Ch.	Red		Yellow		White	
	I	Ft.	I	Ft.	I	Ft.
2	27	.4	22.5	.2	35	.2
6	25	.4	19	.3	34	.2
7	21	.5	13	.9	31	.25
13	20	.5	11.5	1.	30	.25

Model UT-PI. Flush cover plates. Single outlet ivory cover plate, sturdy molded plastic.
92F841. NET........**.21**

Model UT-PS. Single outlet cover plate, brushed stainless steel.
92F842. NET........**.60**

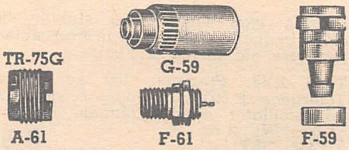
Model UT-SH. Single outlet ivory surface mounting box, sturdy molded plastic.
92F843. NET........**.30**

Model G-300. A 75 to 300 ohm adapter plug for connecting 300 ohm lead from receiver directly to Ultra-tap outlet.
92F845. NET........**.60**

MATCHING TRANSFORMERS

Model TO-374. Designed to provide proper impedance match between 75 and 300 ohm devices. Provide a voltage step-up of 5 to 6 db acros the VHF band, 54 to 216 MC, from the 75 ohm primary to the 300 ohm secondary. Weather resistant. Size: 3x3x ¾". Shpg. wt., 8 oz.
92F867. NET........**6.00**

SOLDERLESS COAXIAL CONNECTORS



F-59 Male Cable Connector. For RG-59 type cables. Mates with F-61, F-81, A-61, F-101-59, F-201-59, AF-101-59, and AF-201-59.
92F870. NET........**.48**

A-61 Adapter. Mates F-59 or F-56 male connector to C-61 female fittings.
92F873. NET EA.........**.05**

F-101-59 Adapter Assembly. Connects RG-11/U type cables to F-59, F-56, or TR-72F. Silver plated brass. Av. Shpg. wt., 3 oz.
92F846. NET........**.55**

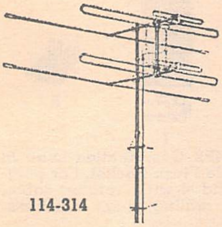
PL-602 Crimping Tool. For F-59, F-101-59, AF-101 bushings. Hardened steel.
92F877. NET........**5.39**

Model F-61. Chassis fitting incorporates new clutch for gripping various size coaxial cable center conductors.
92F846. NET........**.48**

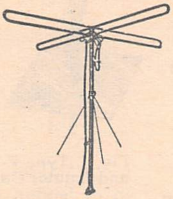
Model G-59. Coaxial connector for use with RG-59 type coaxial cable. Features built-on ferrule. Mates with Ultra Tap Connectors.
92F844. NET........**.48**

Model TR-75G. 75 ohm Terminating resistor.
92F847. NET........**.90**

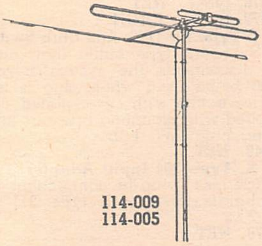
AMPHENOL VHF & UHF OUTDOOR TV ANTENNAS



114-314



114-010



114-009
114-005

MODEL 114-314 TV STACKED ARRAY

Provides high gain on all channels. High front-to-back ratio greatly reduces "ghosts." "Quick-up" installation. Elements of sturdy aluminum. With hardware and instructions. Less standoffs, base mount, mast and twinline. Shipping weight, 14 pounds.

92F172. 1-5 .... **19.50**
6-11 .... **16.25** **12 Up** **14.63**

FM DOUBLE DIPOLE

Model 114-010. Two folded dipoles provide excellent reception, from any direction, over the entire FM band from 88 to 108 mc. Has impedance of 300 ohms. Sturdy, lightweight aluminum construction withstands wind, icing and snow. With 75 feet of Amphenol twin-lead, stand-off insulators, base mount, hardware and 5 ft. mast. Shipping weight, 7 pounds.

92F101. 1-5 .... **10.95**
6-11 .... **9.13** **12 Up** **8.21**

MODEL 114-005 INLINE

Approved For Color TV

Provides good reception on all channels. Meets demands of color TV; will provide clear, sharp pictures. Installation now means antenna system ready for color reception. Quick-up inline antenna; complete with mast, swivel mounting bracket, guy clamp, necessary hardware, stand-off insulators, 75-ft. Amphenol twin-lead. Full installment instructions. Shpg. wt., 6 lbs.

92F103. 1-5 .... **13.13**
6-11 .... **10.94** **12 Up** **9.85**

Model 114-009. Same as above, but without twin-lead. Shpg. wt., 6 lbs.

92F102. 1-5 .... **11.55**
6-11 .... **9.63** **12 Up** **8.66**

TELECOUPLERS

For highly efficient operation of from 2 to 4 separate TV sets using only one antenna. Operates extremely well on either UHF or VHF with no appreciable loss of signal strength. Streamlined dove grey case can be mounted on wall, back of set, etc. With mounting screws.

92F227. 2 set coupler. For coupling 2 TV sets off the same antenna.

Type 114-088. 1-11 .... **2.25**
12 Up **2.02**

92F228. 4 set coupler. For coupling 4 TV sets off the same antenna.

Type 114-090. 1-11 .... **3.45**
12 Up **3.10**

COLOR COUPLER

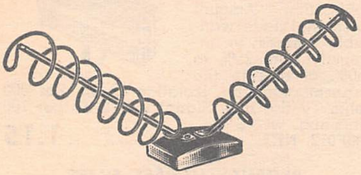
An improved television set coupler designed for color and/or black and white. Ingenious resistor networks prevent interference between sets, assure minimum signal loss and have excellent impedance match. Available in gray and brown. Case moulded of strong waterproof tenite. Mounts flush or flat. Works also on FM.

Model 114-097. 2 set coupler.

92F232. 1-8 .... **1.77**
9 Up **1.59**
92F230. Model 114-098. 3 set. **1-11** .... **2.37** **12 Up** **2.13**
92F231. Model 114-099. 4 set. **1-11** .... **2.97** **12 Up** **2.67**

HI-LO

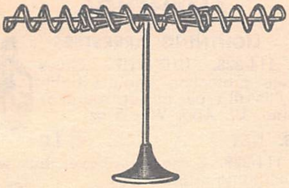
SPIRAL "V" INDOOR ANTENNA



Model 606. Factory tuned indoor antenna designed to completely eliminate any adjustment of antenna rods. Covers channels 2 to 13. Attractively designed gleaming gold spiral with modern brown plastic base. Blends in with any room. 9" high, 24" wide. Shpg. wt., 2 lbs.

92F023. NET **4.70**

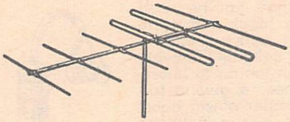
HI-LO INDOOR ANTENNA



A high-gain indoor antenna for all channels, 2 to 83. Factory tuned; requires no adjustment. Modern design blends with furniture. Easy to install. Anodized in gleaming gold. Has bakelite base, aluminum bars. 10¼" high, 32" wide. Shipping weight, 2 pounds.

92F036. NET **5.85**

TACO ANTENNA



Type 644B. High gain, specially designed FM antenna for people who are at a distance from the FM transmitter. Constructed of high tensile strength aluminum. Full coverage, ranging between 88 and 108 megacycles, brings studio quality to the home. Complete hardware and instructions. Shpg. wt., 7 lbs.

92F176. NET **11.88**

Model 610. 10 Element Twin Driven Yagi.

92F198. NET **17.20**

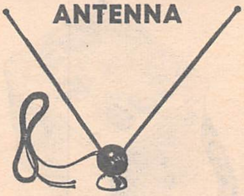
STANCOR ELECTRONICS CORP.

C-R TUBE BOOSTER

Picture tube booster that revitalizes dim pictures due to low cathode emission. For TV tubes in the electro-magnetic class with parallel filament connections. Hi - lo switch provides for two levels of tube brightness. Leads are 15" long permitting ease in mounting. AC line connections are not required. Measures only 3½" high, 1½" in diameter. Brackets and screws included. Shpg. wt., 8 oz.

1F544. Type P-8192. **NET** **3.20**

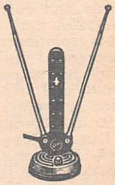
NEWARK INDOOR TV-FM ANTENNA



Elements fully adjustable for all channels. Handsome mahogany bakelite sphere-base with locking knob holds arms rigidly at any angle. With 5 ft. of 300 ohm lead-in. Shpg. wt., 2 lbs.

92F030. NET **2.49**

"GOLDEN SUPER-SIX"



S-6. Indoor antenna designed for UHF, VHF, FM, and color. Selectronic tuning matching device gives clear, sharp tuning on each channel. Adjusta-knob for micro-fine adjustments. Matches impedance input of any TV set. Size: 3⅜" (dia.) x 18¼". Includes band with a gain of up to 8 db. Shipping wt., 2 pounds.

92F015. NET **5.85**

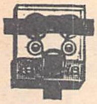
RCA TV SET COUPLER

Type 240A1. Permits connection of two or more TV sets to a single antenna. Overall impedance characteristics of transmission line are not affected. Bandpass response of line remains the same. No cutting, splicing, or soldering necessary. Proper distribution of TV signal between receivers is assured. Wt., 1 lb.

92F240. NET **1.15**

TV ACCESSORIES

POPULAR MOSLEY TELEVISION ANTENNA ACCESSORIES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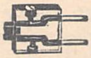
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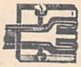
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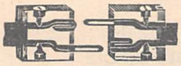
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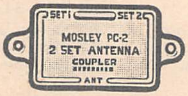

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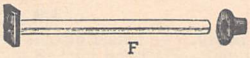
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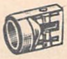
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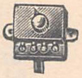
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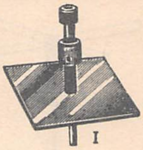
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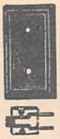
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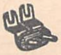
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Fig. A. Type 261 Dipole Connector. For center-connecting 300 ohm line folded dipole. Provides positive electrical connection without any soldering. 2 oz.
36F950. NET .... **.38**

Fig. B. Type 301 Plugs. For connecting antenna lead-in to set or booster. Made of clear poly. ½'' pin spacing. Set screws grip wires firmly. Wt., 2 oz.
36F952. NET .... **.19**

Fig. C. Type 311 Socket. For use with twin-line plug above. Wt., 2 oz.
36F953. NET .... **.19**

Fig. D. Type 321 Polarized Connector. Clear poly. plugs with one male and one female connection. Can be joined in only one way. 1⅜'' long. Wt., 2 oz.
36F954. Pair NET .... **.39**

Fig. E. Type PC-2. TV Coupler. New printed circuit design couples two sets to one antenna. Low loss, compact. Wt. ¼ oz.
36F959. NET **1.39**

Fig. F. Type 625 Wall-Thru. Molded polystyrene tube to bring TV lead-in through wall. 14'' long; can be cut to length required. Will receive RG-59/U coax cable or 300 ohm line. ¾'' O..D Wt., 1 lb
36F970. NET **1.26**

Fig. G. Type 29-S. Tubular to Flat-line Splicer. Clear polystyrene. Solderless. Use indoors or out. Wt., 1 oz.
36F991. NET .... **.14**

Fig. H. Type F40. 2-way Antenna Switch. Allows use of two antennas with a TV set or two sets with one antenna. Terminal lugs. Wt., 8 oz.
36F946. Ivory. **NET**
36F947. Brown. **EACH** **1.33**

Fig. I. Type 624 Roof-Thru. Low-loss feed-through bushing with 8''x9'' copper flashing. Weatherproof for TV or FM lead-in and rotator control cable. Requires 1'' hole. 1 lb.
36F971. NET **3.80**

Fig. J. Type F-1PK Single Flush Socket and Plug. Neat wall socket for 300 ohm TV or FM lead-in. Install in outlet box or mount in wall without box. Includes single flush socket, solderless line plug, socket mounting brackets, screws. Wt., 10 oz.
36F972. Ivory. **NET**
36F973. Brown. **EACH** **1.21**

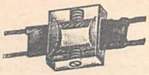
Fig. J. F-11PK Dual Flush Socket and Plug. For separate high and low channels or for terminating both TV and FM lead-in lines at one point. 12 oz.
36F974. Ivory. **NET**
36F975. Brown. **EACH** **1.66**

Fig. J. Type F-14PK Combination Lead In and Rotator Cable Flush Socket. For plug-in of lead-in and 4-wire rotator cable. With face plate, mating plugs and hardware. Wt., 1 lb.
36F976. Ivory. **NET**
36F977. Brown. **EACH** **2.17**

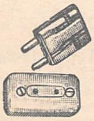
Fig. J. Type FD-1PK. Anti-Stub Switch Outlet. Switching-type outlet that automatically disconnects the system beyond the outlet being used when plug is inserted. Positive action with silver-plated contacts. Supplied with mounting brackets and Ivory mating plug. Wt. 1 lb.
36F949. NET 1.29

Fig. K. Type 304 Input Adapter. Provides a solderless, plug-in connection. Mounts on chassis. Use with type 311 socket. Wt., 2 oz.
36F978. NET .... **.19**

TWIN LINE SPLICER



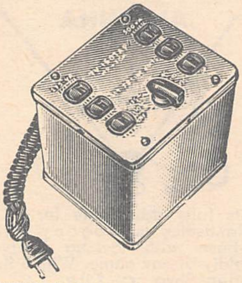
Type 27-S. Polystyrene. For splicing 300 ohm line. Shpg. wt., 2 oz.
36F980. EACH .... .12
10 For 1.08



Type 343-PK Universal TV Lead-In Socket and Plug. With female socket holes. For 300 ohm line. ⅞''Wx1¾'' Lx9/16''D. Solderless. Plug. Shipping weight, 8 ounces.
36F983. Ivory. **NET**
36F984. Brown. **EACH** **65c**

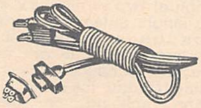
RCA

TV ISOTAP



Model WP-25A. A handy device for industry or the serviceman as well as the experimeter. Speeds up servicing, prevents costly damage, will minimize shock hazards and cut down needless returns. The WP-25A may be used as a high-medium-low isolation transformer for testing TV receivers at various settings of line voltage. This unit supplies outputs of 130 volts, 115 volts and 105 volts at full maximum load and is tapped to match line voltages from 105 to 130 volts in six steps. Power ratings: "Direct" Pos., 500VA, "Isolated" Pos., 275 VA. Everyone connected with the TV industry will find this item indispensable. Frequency: 50-60 cps. Finish is dark cobalt, grey lacquer. Compact steel case. Size: 5¾''H., 5''W., 4⅜''D. Wt., 14 lbs.
62F047. NET **22.00**

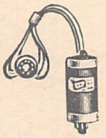
INTERLOCK CORD



TV power supply line cord. 6 ft. long. Molded-on, all-rubber female connector. U. L. approved. Wt., 8 oz.
36F880. NET 29c
36F881. Male Connector. Flush mounting type for use with cord above. Wt., 2 oz.
NET 7c

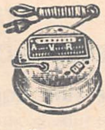
PERMA POWER®

● *NEW* TV BRIGHTENERS



A truly universal Brightener that can be used on any black and white TV set without endangering delicate filaments through too much boost. Designed to give a full 50% heater power boost for all heater voltages and current ratings. Slide switch selects parallel or series wiring. Easy to install.
Model C-202. Complete with duodecal 12 pin tube socket.
90F030. NET **2.25**
Model C-222. 110° Shell base. 8 barriers up to 7 pins.
90F031. NET 2.25
Model C-212. 110° Button base. 8 barriers up to 8 pins.
90F032. NET 2.25

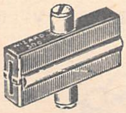
● *NEW* AUTOMATIC TV VOLTAGE REGULATORS



Corrects low line voltage to restore full height and weight of TV picture. Rated 300 watts, 90-135 volts. Boosts 10 volts automatically when line is below 110 volts. Easy plug in installation. Turns on and off with TV set. Shpg. wt., 2½ lbs.
90F033. Model D-200. NET **5.97**
90F034 Model D-101. Manual version, switchable for high line voltage adjustment. **NET** 4.17

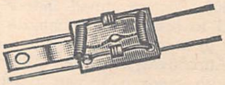
WIZARD

300 ELECTRO-MAGNETIC COUPLER



Operates 2 or more TV-FM sets from one antenna without amplification. Amount of signal made available ranges in intensity from 25% to 50% of that in the transmission line. Isolation 12 db. For 300 ohm TV flat line. Signal loss 2 db per 100 ft. Shpg. wt., 3 oz.
90F012. NET **1.15**

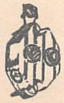
REGENCY HI-PASS FILTER



Model HP-45. For suppressing interference in TV receivers. Constant 'K' type with cut-off frequency of 45 mc in 300 ohm balanced line. Attenuation of 29 mc; 20 db or better. Instructions included. 3 oz.
47F954. NET **97c**

AMPHENOL

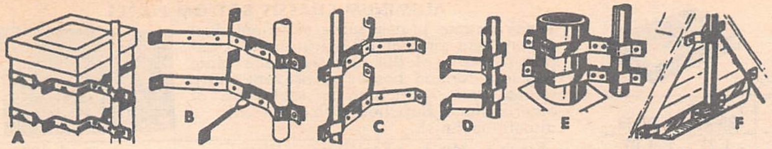
LIGHTNING ARRESTERS



Type 114-328. UHF-VHF. Gives complete protection against lightning. Fits all types of flat, round or oval line. UL App. Wt., 5 oz.
92F226. NET **81c**
Type 114-329. Same as above, but with pipe-mounting strap.
92F229. NET **94c**

Newark's diversified stocks of quality Industrial Electronic products enable us to fill your needs with speed, reliability, and economy.

TELCO TV ANTENNA ACCESSORIES



CHIMNEY MOUNTS—A

Type 8005. A chimney mount that can be installed in a few minutes by a novice. Extra heavy gauge steel. Brackets will support masts up to 1¾". With straps and hardware. Wt., 4 lbs.
92F550. NET **1.56**

Type 9025. Exactly the same as the 8005 above, but supplied with stainless steel straps.
92F551. NET **2.44**

SNAP-IN CHIMNEY MOUNTS

Type 8930. Snap the mast in place and tighten the bolts. No loose pieces. Masts up to 1¾". Clearance: 4". With stainless steel straps and hardware. Wt., 4 lbs.

92F556. NET **2.76**

SNAP-IN WALL MOUNTS—B

DeLuxe Models. Connect to the wall at 5 points, rather than the standard 4. Extra heavy gauge steel. For masts up to 1¾". Eliminates side sway of antenna. 4 lbs.
92F552. Type 8312. 12" clearance.
NET **2.47**
92F553. Type 8318. 18" clearance.
NET **3.18**

Fig. C. Standard snap-in wall mounts with 4 point contact. Will hold masts up to 1¾". Extra heavy gauge steel. Easy to use. No loose parts. 6 lbs.
92F557. Type 8306. 6" clear. **NET**.... **1.41**

CLOSE WALL MOUNTS—D

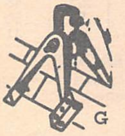
Close wall mounting brackets. Ideal where large clearance is not needed. Doubly protected against rust. Will hold masts up to 1¾". Complete with all hardware.
92F559. Type 8302. 2¼" clearance.
NET **88c**
92F560. Type 8304. 4" clearance. **NET 1.06**

VENT MOUNTS—E

Type 8802. A vent mount that will clamp on any size pipe or vent. Only two pieces to clamp on with bolts. Extra heavy gauge steel. 2"-4", 3 lbs.
92F561. NET **1.59**

PEAK MOUNTS—F

Type 8625. Simply fasten brackets to peak and job is done. Extra heavy gauge angle iron. Will hold masts up to 1¾". Protected against rust. With all hdwe. Shpg. wt., 4 lbs.
92F566. 30" lower support. **NET**...... **2.79**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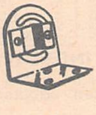
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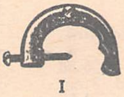
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RIDGE MOUNTS

Type 9060. Fig. G. Mounts over the ridge of a roof or on a flat roof or surface. Legs adjustable to angle of roof. For masts up to 10 ft. high and 1½" dia. without guy wires. Shpg. wt., 5 lbs.
92F568. NET **2.79**

2 PIECE MAST COUPLER

Sturdy 2-piece mast coupler for TV masts. Will couple masts from 1" to 1¾". With all hardware. 8 oz.
92F562. Type 8371.
NET **88c**

GUY WIRE CLAMPS

8939

Fastens to mast to allow the use of guy wires. Has 2 hook eyes for easy fastening of guy wires. For masts from ¾" to 1½". 6 oz.
92F564. Type 8372. NET **22c**

Guy Wire Clamp. Same as above but has screw eyes that will fit masts ¾" to 1½" in diameter. Shpg. wt., 8 oz.
92F565. Type 8939. NET **28c**

MAST CLAMP ASSEMBLY

Complete clamp assembly to fasten a crossbar to mast. Edges serrated so will not turn on mast. Rust-proofed. Shpg. wt., 2 oz.
92F425. Type 8718. NET **35c**

MUELLER GROUND PIPE CLAMP

Fig. I. Clamps on pipes from ⅝" to 1⅝" O.D. Wt., 4 oz.
92F581. EACH **20c**
10 for 1.40

ROOF MOUNTS

Fig. H. Type 8800. A mount that will hold a mast up to 1¾" securely at any angle. Rust Resistant.
92F573. NET **39c**

CHIMNEY STRAP REPAIR KIT

A complete set of stainless steel strapping 24 ft. long, and necessary hardware for replacements on chimney mountings. 2 lbs.
92F577. Type 8932. NET 2.09

CHIMNEY STRAP

Type 8051. A 12 ft. coil of galvanized strap with ¼" holes punched in the center of the ¾" strap. Wt., 1 lb.
92F578. NET **59c**

ION TRAPS

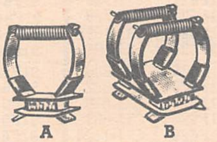

A
B

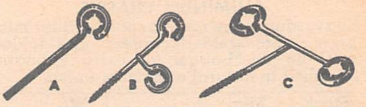
Fig. A. Single-magnet ion trap for bent-gun types. Wt., 3 oz.
5F751. NET .... **.73**

Fig. B. Double magnet trap for straight gun kinescopes. Wt., 4 oz.
5F752. NET **1.03**

GROUND ROD

Copper-plated steel rod for direct-to-earth ground. 4-ft. long, ⅜" dia. Shpg. weight, 2½ lbs.
92F399. Type 8929. NET **71c**

Newark's diversified stocks of quality Industrial Electronic products enable us to fill your needs with speed, reliability, and economy.



UNIVERSAL STANDOFFS

Standoffs that will hold securely any UHF, VHF, or other transmission line. Sturdily made, they will not rust.

Stk.No.	Fig.	Screw	Length	Each	10 for
92F400	A	wood	3½"	.03	.27
92F401	A	wood	5½"	.05	.45
92F402	A	wood	7½"	.06	.54
92F403	A	machine	3½"	.04	.36
92F404	A	machine	7½"	.06	.54
92F405	B	wood	7½"	.17	1.53
92F406	B	machine	7½"	.17	1.53
92F407	C	wood	7½"	.19	1.71

Mast Straps only. For fastening standard Telco machine screw standoffs to mast. For masts up to 2¾" dia.
92F423. #8251. NET **12c**

MAST STANDOFFS

Same physical size as above but have straps to fasten the standoff to the antenna mast.

Stk. No.	Length	Each	10 for
92F410	7½"	.15	1.35

SNAP-ON STANDOFF

New, improved snap-on standoff that is easy to put on and really stays on. For UHF and VHF. No tools required.
92F412. #8798. NET **6c**
10 for 55c

"E-Z" STANDOFFS

Universal standoffs with E-Z locking. Merely put the lead-in in place and swing the stand-off shut. Locks surely and easily. No tools needed Shpg. wt./10, 9 oz.

Stk.No.	Type	Lgth.	Ea.	10for
92F413	Sgle. wood screw	3½"	.06	.54
92F414	Sgle. wood screw	7½"	.07	.63
92F415	Sgle. mach. screw	3½"	.06	.54

"E-Z" MAST STANDOFFS

Stk.No.	Type	Lgth.	Ea.	10for
92F418	Single strap	3½"	.14	1.26

HOT NAIL STANDOFF

A specially formed and hardened standoff for driving in masonry, hard woods, etc. Wt., per 10, 8 oz.
92F421. NET **9c**

NAIL-IN STANDOFFS

Type 8343. Speed type nail-in insulators save time and labor. Universal for all lead-ins. Shpg. wt., per 10, 8 oz.
92F422. NET Each **7c**
Per 100 .... 6.37

U-BOLTS

To fit masts ¾" to 1⅜" dia. Inside Max. Size 1⅜" wide x 3" long. For mounting and extending antenna poles and masts. Supplied with nuts. Shpg. wt. 2 oz.
92F424. Type 8123. NET **11c**

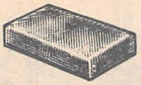
LEAD-IN TUBE

A universal style insulated lead-in for feeding all types of lead-in through the wall.
92F428. Type 8958-1. Ivory. **NET** **1.38**

Bridle Rings. Handy bridle rings for tying guy wires. Will not rust.
92F426. NET EACH **5c**

CABINETS AND ACCESSORIES

ALUMINUM CHASSIS



Heavy-duty construction, punched for mtg. brkts., spot welded corners, and folded over on the bottom for extra strength. Supplied in natural aluminum finish.

Stock No.	Mfg. No.	Dimen.	Wt. Lbs.	1-24	25-49	50-99
90F940	AC-430	4x6x3″	½	1.34	1.21	1.07
90F941	AC-431	4x6x2″	½	1.10	.99	.88
90F942	AC-432	4x17x3″	1¼	2.33	2.10	1.86
90F943	AC-402	5x7x2″	½	1.17	1.05	.94
90F944	AC-429	5x7x3″	¾	1.42	1.28	1.14
90F945	AC-403	5x9½x2″	½	1.24	1.12	.99
90F946	AC-421	5x9½x3″	¾	1.60	1.44	1.28
90F947	AC-404	5x10x3″	¾	1.63	1.47	1.30
90F948	AC-422	5x13x3″	¾	1.84	1.66	1.47
90F949	AC-433	6x17x3″	1¼	2.67	2.40	2.14
90F950	AC-405	7x7x2″	½	1.35	1.22	1.08
90F951	AC-406	7x9x2″	½	1.46	1.31	1.17
90F952	AC-407	7x11x2″	¾	1.58	1.42	1.26
90F953	AC-408	7x12x3″	1	2.00	1.80	1.60
90F954	AC-409	7x13x2″	¾	1.67	1.50	1.34
90F955	AC-411	7x15x3″	1½	2.67	2.40	2.14
90F956	AC-423	7x17x3″	1¾	2.75	2.48	2.20
90F957	AC-424	8x12x3″	1½	2.42	2.18	1.94
90F958	AC-425	8x17x2″	1½	2.51	2.26	2.01
90F959	AC-412	8x17x3″	1¾	2.84	2.56	2.27
90F960	AC-413	10x12x3″	1½	2.67	2.40	2.14
90F961	AC-414	10x14x3″	1¾	2.84	2.56	2.27
90F962	AC-415	10x17x2″	1¼	2.68	2.41	2.14
90F963	AC-416	10x17x3″	2	3.17	2.85	2.54
90F964	AC-426	11x17x2″	2¼	3.42	3.08	2.74
90F965	AC-417	11x17x3″	2¾	3.97	3.57	3.18
90F966	AC-418	12x17x3″	2¾	4.08	3.67	3.26
90F967	AC-419	13x17x2″	2½	3.51	3.16	2.81
90F968	AC-420	13x17x3″	2¾	4.26	3.83	3.41
90F969	AC-427	10x17x4″	3½	4.51	4.06	3.61
90F970	AC-428	13x17x4″	3¾	5.26	4.73	4.21

RUBBER FEET

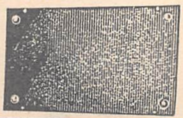
Type F-7264A. 1″ dia. x ⅜″ thick black rubber. With hardware Shipping weight, 3 oz.

91F084. NET Each .... **.08** **Per 100** **5.88**

Type F-8038. ⅛″ thick x ¾″ dia. Rubber protection pad. 3 oz.

91F085. NET Each .... **.02** **Per 100** **1.58**

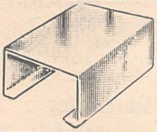
ALUMINUM CHASSIS BOTTOM PLATES



These bottom plates make excellent dust covers and protect all wiring and component parts of the chassis. Each plate has four formed bosses to prevent sharp edges from scratching a table top or other surface. Supplied with a natural aluminum finish.

Stock No.	Mfr's. No.	For Chas. Dimen.	Wt. Lbs.	1-49	50-99	100-149
90F860	BPA-1589	5x 7	⅛	.74	.67	.59
90F861	BPA-1590	5x 9½	¼	.75	.68	.60
90F862	BPA-1591	5x10	¼	.75	.68	.60
90F863	BPA-1592	7x 7	⅓	.77	.69	.62
90F864	BPA-1593	7x 9	⅓	.80	.72	.64
90F865	BPA-1594	7x11	⅓	.90	.81	.72
90F866	BPA-1595	7x12	½	.97	.87	.78
90F867	BPA-1596	7x13	½	1.14	1.03	.91
90F868	BPA-1597	10x17	1¾	1.52	1.37	1.22
90F869	BPA-1598	13x17	2¼	2.07	1.86	1.66

OPEN END CHASSIS BASES



Precision-made of .051 aluminum with base flanges for attaching bottom plate or fastening down of chassis. Natural aluminum finish. Extremely useful for a wide variety of applications.

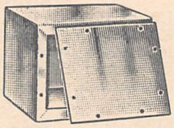
Stk.No.	Type	DxWxH	Lbs.	1-24	25-49	50-99
91F727	CB1623	2⅝x 2¾x1¼″	¼	.38	.34	.30
91F728	CB1624	1¾x 3⅛x1″	¼	.42	.38	.34
91F729	CB1625	3¼x 4½x2″	¼	.48	.43	.38
91F731	CB1627	3¾x 4⅛x1½″	¼	.45	.41	.36
91F732	CB1628	3 x 6⅛x1¼″	¼	.53	.48	.42
91F733	CB1629	5¾x 4⅞x1½″	¼	.57	.51	.46
91F734	CB1617	4 x 3⅛x1″	½	.41	.37	.33
91F735	CB1618	4 x 4⅛x1″	½	.50	.45	.40
91F736	CB1619	4 x 5⅛x1″	½	.53	.48	.42
91F737	CB1620	4 x 6⅛x1″	½	.55	.50	.44
91F696	CB1626	2¾x 4⅛x1″	¼	.45	.41	.36

INTERLOCK SWITCH BRACKET

Type SB1348. For mounting interlock safety switch in rack. Switch is actuated when cabinet door is opened. Size: 3⅛x1½x2″. Wt. 4 oz.

91F086. NET .... **.60**

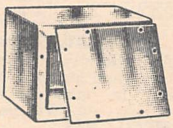
UTILITY CABINETS



Ideal for mounting amplifiers, meters, test instruments, etc. Removable front and back may be fastened to cabinet with self-tapping screws provided. Available in natural or light gray hammertone finish (HG). Shipped knocked down—ready for immediate assembling. Rugged and attractive. Aluminum is .050″ thick.

Stk. No.	Type	HxWxD	Lbs.	1-49	50-99	100-149
91F543	AU-1028	4x5x3″	¼	1.37	1.23	1.10
91F544	AU-1029	6x5x4″	½	1.50	1.35	1.20
91F545	AU-1039	6x6x6″	¾	2.17	1.95	1.74
91F546	AU-1040	9x6x5″	1	2.51	2.26	2.01
91F547	AU-1083	4x4x2″	¼	1.29	1.16	1.03
91F716	AU1083HG	4x4x2″	¼	1.50	1.35	1.20
91F717	AU1028HG	4x5x3″	¼	1.67	1.50	1.34
91F718	AU1029HG	6x5x4″	½	1.84	1.66	1.47
91F719	AU1039HG	6x6x6″	¾	2.42	2.18	1.94
91F720	AU1040HG	9x6x5″	1	2.84	2.56	2.27

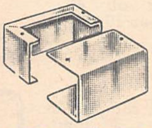
METAL UTILITY CABINETS



Steel utility cabinets for electronic equipment, monitors, frequency meters, etc. Ideal for the amateur, experimenter. Accurately formed of sheet steel for rugged use. Have two removable sides. Black wrinkle and light grey hammertone finish.

Stk. No. Black	Type	Stk. No. Ham. Grey	Type	HxWxD	Lbs.	1-49	50-99	100-149
91F620	CU-883	91F640	CU-883HG	4x4x2″	¾	1.09	.98	.87
91F621	CU-728	91F641	CU-728HG	4x5x3″	⅞	1.22	1.10	.98
91F622	CU-729	91F642	CU-729HG	6x5x4″	1½	1.38	1.24	1.10
91F623	CU-1098	91F643	CU-1098HG	6x6x6″	2½	2.09	1.88	1.67
91F624	CU-1099	91F644	CU-1099HG	9x6x5″	3	2.34	2.11	1.87
91F625	CU-880	91F645	CU-880HG	10x10x8″	5½	4.01	3.61	3.21
91F626	CU-882	91F646	CU-882HG	15x9x7″	7½	4.51	4.06	3.61
91F627	CU-879	91F647	CU-879HG	10x8x7″	5	3.34	3.01	2.67
91F628	CU-881	91F648	CU-881HG	12x11x8″	6	4.34	3.91	3.47
91F629	CU-1124	91F649	CU-1124HG	12x7x6″	4	3.29	2.96	2.63

MINIBOXES

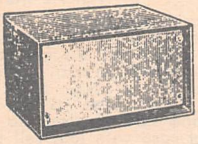


Two-piece aluminum maximum degree of accessibility, adequate shielding as well as complete protection from mechanical injury and dust particles. Formed of 16 or 18 gauge aluminum. Comb. snap lock and screw type fastening. Excellent for constructing Amplifiers, shielded oscillators, etc.

Grey Hammertone							Natural Aluminum				
Stk. No.	Type	1-49	50-99	100-149	WxHxL	Wt. Lbs.	Stk. No.	Type	1-49	50-99	100-149
91F700	CU-2100A	.74	.67	.59	1⅝x2⅛x2¾″	¼	91F572	CU-3000A	.54	.53	.47
91F701	CU-2101A	.76	.68	.61	1⅝x2⅛x3¼″	¼	91F573	CU-3001A	.61	.55	.49
91F702	CU-2102A	.80	.72	.64	1⅝x2⅛x4″	¼	91F574	CU-3002A	.64	.58	.51
91F703	CU-2103A	.90	.81	.72	2¼x2¼x4″	¼	91F575	CU-3003A	.72	.65	.58
91F704	CU-2104A	.95	.86	.76	2¼x2¼x5″	¼	91F576	CU-3004A	.76	.68	.61
91F705	CU-2105A	1.20	1.08	.96	3x4x5″	½	91F577	CU-3005A	.96	.86	.77
91F706	CU-2106A	1.02	.92	.82	2⅛x3x5¼″	¼	91F578	CU-3006A	.82	.74	.66
91F707	CU-2107A	1.50	1.35	1.20	4x5x6″	¾	91F579	CU-3007A	1.20	1.08	.96
91F708	CU-2108A	1.65	1.49	1.32	3x5x7″	¾	91F580	CU-3008A	1.32	1.19	1.06
91F709	CU-2109A	2.10	1.89	1.68	3½x6x8″	1	91F581	CU-3009A	1.68	1.51	1.34
91F697	CU-2110A	2.35	2.12	1.88	3½x6x10″	1¼	91F582	CU-3010A	1.88	1.69	1.50
91F698	CU-2111A	3.20	2.88	2.56	4x7x12″	1¾	91F583	CU-3011A	2.56	2.30	2.05
91F535	CU-2112A	3.20	2.88	2.56	4x5x17″	2¼	91F584	CU-3012A	2.56	2.30	2.05
91F536	CU-2113A	1.20	1.08	.99	1⅝x2x10″	½	91F585	CU-3013A	.96	.86	.77
91F537	CU-2114A	1.55	1.40	1.24	2¼x2½x12″	¾	91F586	CU-3014A	1.24	1.12	.99
91F538	CU-2115A	.92	.83	.74	2¾x2x4″	¼	91F587	CU-3015A	.74	.67	.59
91F539	CU-2116A	.92	.83	.74	1½x2¼x4¼″	¼	91F588	CU-3016A	.74	.67	.59
91F540	CU-2117A	.78	.70	.62	1⅛x2⅛x3¼″	¼	91F589	CU-3017A	.62	.56	.50

CABINETS AND CASES

SHADOW CABINET



Extremely versatile housing since front rear and bottom may be removed for installation or servicing. One inch recessed front panel prevents accidental movement of controls, knobs, and switches attached to it. Body made of 18 gauge steel and panels of 16 gauge steel. Four rubber feet attached to base eliminates scratching. Finished in light gray hammertone.

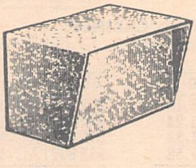
Stk. No.	Type	W x H x D	Lbs.	1-24	25-49	50-99
91F892	SB-2140	14¼x8 x10"	11½	6.50	5.85	5.20
91F893	SB-2141	13¼x7½x9"	9¾	5.00	4.50	4.00
91F894	SB-2142	17x9½x11"	15¼	8.85	7.97	7.08
91F895	SB-2143	15½x6 x9"	9½	4.85	4.37	3.88

PORTACAB

Desirable as housings for instrumentation requiring high stylized appearance. Body is one piece aluminum with contoured corners. Panel is also aluminum. Flexible recessed handle permits easy portability as well as vertical stacking. Louvres point inward permitting side-to-side placement without loss of space. Welded back has opening. Front panel recessed ½''. Four detachable rubber feet are provided. Gray hammertone finish.

Stk. No.	Type	Dimensions Depth	Width	Height	1-24	25-49	50-99
91F615	WA-1540	8''	6⅛''	8''	9.20	8.28	7.36
91F616	WA-1541	12''	8⅛''	9''	12.00	10.80	9.60
91F617	WA-1542	8''	10⅛''	8''	10.65	9.59	8.52
91F618	WA-1543	18''	11⅛''	11''	13.50	12.15	10.80
91F619	WA-1544	18''	14⅛''	12''	15.50	13.95	12.40

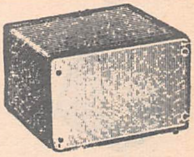
COWL TYPE MINIBOX



Has projecting cover which reduces glare on panel from overhead lighting and provides protection for controls and dials. Cover has two hex braces to which bottom is attached with sheet metal screws. When assembled this type of construction results in a sturdy, rigid housing. Fabricated of .040 aluminum. Overall dimensions and wt.: SC-2130 and SC-3030. 6x10x7". 2 lbs.; SC-2131 and SC-3031, 7x12x8", 2½ lbs.; SC-2132 and SC-3032, 3x8x5", 1 lb.; SC-2133 and SC-3033, 5x5x5", 1 lb.

Stk.No. G-H	Type	1-49	50-99	100-149	Stk.No. Nt'ral	Type	1-49	50-99	100-149
91F884	SC-2130	5.95	5.36	4.76	91F888	SC-3030	4.30	3.87	3.44
91F885	SC-2131	6.50	5.85	5.20	91F889	SC-3031	4.70	4.23	3.76
91F886	SC-2132	3.45	3.11	2.76	91F890	SC-3032	2.45	2.21	1.96
91F887	SC-2133	3.60	3.24	2.88	91F891	SC-3033	2.60	2.34	2.08

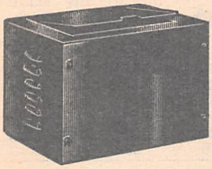
CONTOUR UTILITY CABINETS



Housing and flanged panels have rounded corners. Solid front and louvered rear panels are removable. Four rubber feet attached to base prevent scratching. Smooth dark gray enameled body and light gray enameled panel. All parts are 20 gauge steel.

Stk. No.	Type	Overall Size	Lbs.	1-24	25-49	50-99
91F896	CU-463	4 7/32x 6 7/32x3¾"	1¾	5.50	4.95	4.40
91F897	CU-465	4 7/32x 6 7/32x5¾"	2¼	6.35	5.72	5.08
91F898	CU-585	5 7/32x 8 7/32x5¾"	3	8.35	7.52	6.68
91F899	CU-587	5 7/32x 8 7/32x7¾"	3¾	9.10	8.19	7.28
91F900	CU-7125	7 7/32x12 7/32x5¾"	5	9.70	8.73	7.76
91F901	CU-7127	7 7/32x12 7/32x7¾"	6	10.35	9.32	8.28

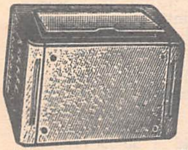
INSTRUMENT AND RECEIVER CABINETS



For table mounting of test instruments and receivers. Each cabinet has an evenly recessed hinged cover with convenient finger lift. The panel on front of cabinet is readily attached with self-tapping screws. Louvers provide ample ventilation. Available in black wrinkle finish only. Require open-end chassis bases.

Stk. No.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F630	C-973	7x8x8"	5	4.18	3.76	3.34
91F631	C-993	7x10x8"	5½	4.84	4.36	3.87
91F632	C-994	7x12x8"	5¾	5.01	4.51	4.01
91F633	C-995	7x14x8"	6	5.26	4.73	4.21
91F636	C-999	12x18x12"	15	9.92	8.93	7.94
91F634	C-1190	8x16x8"	7	7.60	6.84	6.08
91F635	C-975	9x15x11"	8	9.19	8.27	7.35

STREAMLINED CABINETS

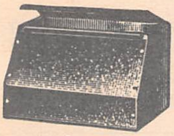


Ideal cabinets for electronic devices not requiring excessive depth. They have recessed hinged cover with convenient finger lift. Grey hammertone finish or black wrinkle. Overall ht. is 8" and **overall depth is 8¼"**. Inside of cabinet easily accessible.. Complete with panel.

Stk.No. Black	Stk.No. Ham. Grey	Type	Wid.	Panel	Top Opening	Lbs.	1-24	25-49	50-99
91F680	91F775	CD-1480	10½''	8x8''	5⅝x 7⅝''	5¾	5.90	5.31	4.72
91F681	91F776	CD-1481	12½''	8x10''	5⅝x 9⅛''	6	6.01	5.41	4.81
91F682	91F777	CD-1482	14½''	8x12''	5⅝x11⅛''	6½	6.31	5.68	5.05
91F683	91F778	CD-1483	16½''	8x14''	5⅝x13⅛''	7	6.77	6.09	5.42
91F684	91F779	CD-1484	18½''	8x16''	5⅝x15⅞''	7¾	7.36	6.62	5.89
91F685	91F780	CD-1485*	20⅝''	12x18''	10½x15½''	15	14.95	13.45	11.96

*Has ½'' vert. chrome strip fastened to corners. **12" overall depth.**

SLOPING PANEL CABINETS



The entire front panel of this cabinet is removable if so desired. This cabinet is also provided with a hinged top for easy accessibility to tubes and other parts that are mounted on the chassis, without necessitating removal of the front panel. These cabinets are finished in black wrinkle or light grey hammertone enamel.

Stk. No. Black	Type	Stk. No. HG Fin.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F782	C-1584	91F791	C-1584HG	6½x7 1/16x7 5/16''	2½	3.30	2.97	2.64
91F783	C-1587	91F792	C-1587HG	8x8 1/16x8''	2¾	4.51	4.06	3.61
91F784	C-1585	91F793	C-1585HG	6½x9 1/16x7 5/16''	3	3.75	3.38	3.00
91F785	C-1588	91F794	C-1588HG	8x10 1/16x8''	3¼	5.01	4.51	4.01
91F786	C-1586	91F795	C-1586HG	6½x11 1/16x7 5/16''	3½	4.34	3.91	3.47
91F787	C-1894	91F796	C-1894HG	8x14 1/16x8''	4	5.34	4.81	4.27
91F788	C-1892	91F797	C-1892HG	8x13 1/16x8½''	5¼	5.95	5.36	4.76
91F789	C-1896	91F798	C-1896HG	9x18 1/16x8⅛''	7	7.68	6.91	6.14
91F790	C-1893	91F799	C-1893HG	10x8 1/16x10½''	8½	7.85	7.07	6.28

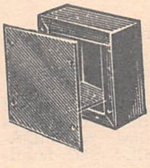
CARRYING CASES

Portable cases for transceivers, test units and other types of compact equipment., Front and back panels are fastened by self-tapping screws. Have easy grip handle. Black wrinkle finish.

Stk. No.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F608	CC-1095	9x6x5''	3¼	3.01	2.71	2.41
91F609	CC-1092	7x12x6''	4	4.18	3.76	3.34
91F610	CC-1100	10x10x8''	5	4.84	4.36	3.87
91F611	CC-1091	6x9x5''	3¼	3.01	2.71	2.41
91F612	CC-1096	12x7x6''	4	4.18	3.76	3.34
91F613	CC-1097	15x7¾x7''	5	4.68	4.21	3.74
91F614	CC-1093	9x15x7''	5	5.85	5.27	4.68

NEWARK MAINTAINS SEVEN WAREHOUSES
TO SERVE YOU BETTER!

BUILT-IN CHASSIS CABINETS



The ideal cabinet for units requiring shielded and enclosed mounting. Perfect for minor radio-television assemblies. Chassis is welded to front panel, making it a timesaving, convenient unit. Front and rear panels are attached by means of self-tapping screws. Made of heavy-duty, long lasting 20 gauge steel. Finished in black wrinkle finish.

Stk. No.	Type	HxWxD	Wt. Lbs.	1-49	50-99	100-149
91F487	C1793	4x4x2"	1	1.34	1.21	1.07
91F489	C1795	5x4x3"	1¼	1.62	1.46	1.30
91F488	C1794	4x5x3"	1¼	1.48	1.33	1.18
91F490	C1796	6x5x4"	2	1.70	1.53	1.36
91F491	C1797	5x6x4"	2	1.92	1.73	1.54
91F492	C1798	6x6x6"	3	2.17	1.95	1.74

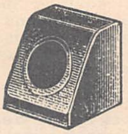
CABINETS AND ACCESSORIES

MIDGET SPEAKER CASES

All metal cases, 4x4x4¼", that fit 2* and 3"** speakers. Black wrinkle finish. 2 lbs. Type CS-1685. Hole dia. 2³⁄₁₆". Type CS-1686. Hole diameter 2¹³⁄₁₆".

Stk. No.	1-24	25-49	50-99
91F606*	1.58	1.42	1.26
91F607**	1.58	1.42	1.26

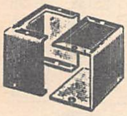
UNIVERSAL METER CASES



Can accommodate either a 2" or 3" meter. Center hole is punched for 2" meter and has an easily removed knock-out ring which increases size of hole to fit 3" meter. One piece, detachable back and sides fastened to the body of case with four self tapping screws. Two ⅜" knock-out holes in top for installation of feed through insulators if required. May also be used for switches, etc. Available in steel or aluminum grey hammertone. 4¼"H.x4"W.x4"D.

No.	Type	Wt.	1-49	50-99	100-149
91F598	CM-1935 Steel	1 lb.	1.22	1.10	.98
91F599	CMA-1936 Alum.	¾ lb.	1.47	1.32	1.18

STEEL HANDY BOXES



Two-piece steel cases. Provides the maximum degree of accessibility, adequate shielding as well as complete protection from mechanical injury and dust particles. Formed of 22 gauge steel. Finished in black wrinkle.

Stk. No.	Type	WxHxL	Wt.	1-49	50-99	100-149
91F541	HB-1621	1½x2¼x4¼"	½	1.15	1.04	.92
91F542	HB-1622	2¾x2x4"	½	1.17	1.05	.94

UNIVERSAL SLOPING PANEL CABINETS

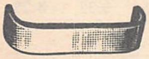
Versatile, Streamlined housings with two viewing angles. Available in steel and aluminum. Grey hammertone finish.

Steel	Type	HxWxD	Lbs.	1-49	50-99	100-149
91F830	C-1606	4x4x4¼"	¾	1.45	1.30	1.16
91F831	C-1607	4x5x4¼"	¾	1.55	1.39	1.24
91F832	C-1608	4x6x4¼"	1⅛	1.65	1.48	1.32
91F833	C-1609	4x7x4¼"	1⅛	1.90	1.71	1.52

Alum.	Type	HxWxD	Lbs.	1-49	50-99	100-149
91F834	AC-1610	4x4x4¼"	½	1.68	1.51	1.34
91F835	AC-1611	4x5x4¼"	½	1.75	1.57	1.40
91F836	AC-1612	4x6x4¼"	¾	1.90	1.71	1.52
91F837	AC-1613	4x7x4¼"	¾	2.10	1.89	1.68

HANDLES

Handles are fabricated from steel, brass or cast aluminum. Durable, attractive finish will provide long wear. The material and finish specifications for each handle is described below. They have unlimited applications in the electronic, electrical, and many other fields. Packaged in pairs only. Necessary mounting hardware is furnished. Bud handles are designed for rugged applications.



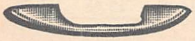
1" hand clearance. **H-9100.** Made from 1"x¼" solid brass. 4"x½" mtg. centers. Chrome plated. Hardware: (4) 6-32x½" screws.

H-9101. Same as H-9100 except has 8"x½" mounting centers.

H-9102. Made from ⅝"x¼" solid brass. 4" mounting centers. 1" hand clearance. Chrome plated. Hardware: (2) 6-32x¼" screws.

H-9103. Same as H-9102 except has 6" mounting centers.

Stock No.	Type	1-49 Pair	50-99 Pair	100-149 Pair
90F700	H-9100	3.96	3.56	3.17
90F701	H-9101	6.15	5.54	4.92
90F702	H-9102	3.15	2.84	2.52
90F703	H-9103	3.60	3.24	2.88

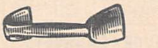


H-9120. Made from die-cast aluminum. 4⅜" inside mounting centers. 5⅜" outside mtg. centers. 1" hand clearance. Silver anodized. Hardware: (4) 6-32x½" screws.

H-9121. Same as H-9120 except is chrome plated.

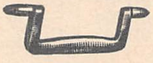
H-9123. Similar to H-9120 except has 4½" mounting centers, 1" hand clearance. Hardware: (2) 10-32x½" screws.

Stock No.	Type	1-49 Pair	50-99 Pair	100-149 Pair
90F705	H-9120	3.51	3.16	2.81
90F706	H-9121	4.95	4.46	3.96
90F707	H-9123	2.61	2.35	2.09



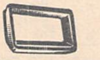
H-9150. Made from die-cast aluminum. 4"x⅝" mounting centers. 1¼" hand clearance. Silver anodized. Hdwe: (4) 10-32x½" screws.

Stock No.	Type	1-49 Pair	50-99 Pair	100-149 Pair
90F710	H-9150	3.15	2.84	2.52



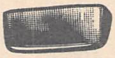
H-9122. Made from die-cast aluminum. Hinged on ¼" steel pins with 2 hinge blocks. 6½" inside mounting centers. 7¼" mounting centers. 1½" hand clearance. Silver anodized. Hardware: (4) 10-32x⅜" screws.

Stock No.	Type	1-49 Pair	50-99 Pair	100-149 Pair
90F704	H-9122	5.94	5.35	4.95



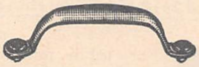
H-9130. Made from die-cast aluminum. 3" mounting centers. Silver anodized. Hardware: (2) 10-32x⅜" screws.

Stock No.	Type	1-49 Pair	50-99 Pair	100-149 Pair
90F708	H-9130	5.25	4.73	4.20



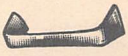
H-9140. Made from die-cast aluminum. 3½" mtg. centers. ¾" hand clearance. Silver anodized. Hardware: (2) 10-32x½" screws.

Stock No.	Type	1-49 Pair	50-99 Pair	100-149 Pair
90F709	H-9140	2.34	2.11	1.87



Model UH-70A. Useful for attaching to any small housing or speaker enclosure to achieve portability. Made from aluminum given an etched finish. Overall length 5⅛". Mounting centers 4⅝". Shpg. wt., 3 oz.

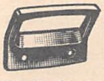
Stock No.	1-49	50-99	100-149
91F079	.36	.32	.29



H-9151. Made from die-cast aluminum. 5⁵⁄₃₂"x ⅝" mtg. centers. 1⅜" hand clearance. Silver anodized. Hdwe: (4) 10-32x½" screws.

H-9152. Similar to H-9151. 3⅞" mounting centers. 1⅛" hand clearance. Silver anodized. Hardware: (2) 10-32x⅜" screws.

Stock No.	Type	1-49 Pair	50-99 Pair	100-149 Pair
90F711	H-9151	5.10	4.59	4.08
90F712	H-9152	4.14	3.73	3.31



H-9131. Made from die-cast aluminum. 2¼" mounting centers. Size 4"x2⅞". Silver anodized. Hardware: (2) ¼-28x¾" raised counter-sunk screws and nuts.

Stock No.	Type	1-49 Pair	50-99 Pair	100-149 Pair
90F713	H-9131	3.90	3.51	3.12

CHASSIS SLIDES FOR RELAY RACKS AND CABINETS

For either panel rail bracket or direct side rail mounting. Complete w/mtg. brackets and hardware. (*) Retracted length. Travel length is same as retracted length.

SC SERIES. Designed for commercial applications. Aluminum extrusions are made of 2014T6 per QQ-A-261.

SI SERIES. Designed for industrial and Military applications. Slide channels are aluminum extrusions made from 7075T6 per QQ-A-277. All component parts such as stop pins made from 302 stainless steel per MIL-S-5059A. Ball bearings are 440 stainless steel per QQ-S763. All aluminum parts are anodized per MIL-A-8625A and stainless steel parts passivated per MIL-S-5002. Lubricant used is hi-low temperature grease per MIL-G-3278.

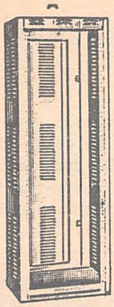
SI-4200 SERIES and SC-4300 SERIES. Full ball bearing slides. Inner members do not disconnect or tilt.

SI-4000 SERIES and SC-4400 SERIES. Inner track is dry lubricated friction type and have quick disconnect feature and lock in extended position.

SI-4100 SERIES and SC-4500 SERIES. Have quick disconnect feature and lock in extended position plus allow 90° tilt up and down in 45° increments.

Stock No.	Type	Length*	Load Cap.	1-14 pair	15-24 pair	25-24 Pair
90F714	SC-4312	12"	150 lb.	27.15	24.45	21.70
90F716	SC-4316	16"	110 lb.	29.10	26.20	23.30
90F719	SC-4320	20"	95 lb.	31.80	28.60	25.45
90F717	SC-4412	12"	150 lb.	39.30	35.35	31.45
90F720	SC-4416	16"	110 lb.	42.15	37.95	33.70
90F721	SC-4420	20"	95 lb.	44.10	39.70	35.30
90F715	SC-4512	12"	275 lb.	56.25	50.65	45.00
90F718	SC-4516	16"	215 lb.	60.90	54.80	48.70
90F722	SC-4520	20"	180 lb.	64.65	58.20	51.70
90F723	SI-4212	12"	275 lb.	41.25	37.15	33.00
90F724	SI-4216	16"	225 lb.	45.00	40.50	36.00
90F725	SI-4220	20"	180 lb.	48.75	43.90	39.00
90F727	SI-4012	12"	275 lb.	48.75	43.90	39.00
90F728	SI-4016	16"	225 lb.	53.40	48.15	42.80
90F730	SI-4020	20"	180 lb.	59.10	53.20	47.30
90F731	SI-4112	12"	275 lb.	64.65	58.20	51.70
90F729	SI-4116	16"	225 lb.	69.30	62.35	55.45
90F726	SI-4120	20"	180 lb.	72.15	64.95	57.70

METAL RACKS AND PANELS



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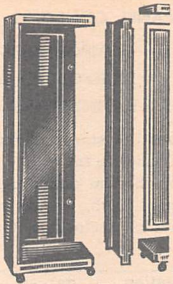

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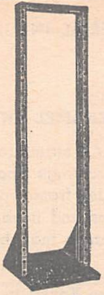

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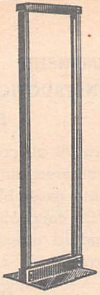

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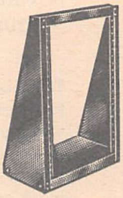
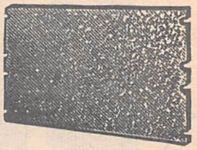


E
Desk Racks



F
Rack Panels

BUD ENCLOSED RELAY RACKS

RC-7756 casters fit in all racks. All standard panels fit in these racks. *Complete with reinforcement brackets that provide places for bolting casters to base.

Black	Grey	Type	Ham. Grey	Type	Fig.	HxWxD	Pan. Sp.	Lbs.	1-9	10-14	15-19
91F050	91F056	CR-1772*	91F062	CR1772HG*	A	69 9/16x22x17⅛"	61¼x19"	116	63.96	57.56	51.17
91F051	91F057	CR-1773*	91F063	CR1773HG*	A	82 5/16x22x17⅛"	77x19"	137	76.57	68.91	61.26
91F058	91F061	CR-1771*	91F078	CR1771HG*	A	47 5/16x22x17⅛"	42x19"	91	51.10	45.99	40.88
91F059	91F060	CR-1774*	91F077	CR1774HG*	A	42 1/16x22x17⅛"	35¾x19"	84	45.17	40.65	36.14

BUD ADD-A-RACK SERIES FOR ENCLOSED RACKS

Provides ingenious methods of adding panel space to present rack equipment without buying a whole new rack cabinet. Requires only four parts: door, top, bottom, and an Add-a-Rack coupling unit. Remove side of present rack and replace with coupling unit. HG types has a light gray hammertone finish.

Stk. No.	Type	Color	Add to	Fig.	WxDxH	Lbs.	1-9	10-14	15-19
91F465	AR-1778	Grey	CR-1774	B	22x17⅛x42 1/16"	75	44.34	39.91	35.47
91F468	AR-1777	Grey	CR-1773	B	22x17⅛x82 5/16"	116	74.90	67.41	59.92
91F470	AR-1775HG	Ham. Grey	CR-1771	B	22x17⅛x47 5/16"	81	49.01	44.11	39.21
91F471	AR-1776HG	Ham. Grey	CR-1772	B	22x17⅛x69 9/16"	100	60.96	54.86	48.77
91F472	AR-1777HG	Ham. Grey	CR-1773	B	22x17⅛x82 5/16"	116	74.90	67.41	59.92

ENCLOSED RELAY RACK—GREY HAMMERTONE FINISH

These relay racks are made of 16 gauge steel with 7/64" panel mounting supports. Four sturdy supports in bottom for fastening casters for ready mobility.

Stk. No.	Type	Ht.	PS	Dep.	Lbs.	Fig.	1-9	10-14	15-19
91F095	CR-2071	47 5/16"	42"	22"	91	A	71.40	64.26	57.12
91F096	CR-2072	69 9/16"	61¼"	22"	150	A	89.35	80.42	71.48
91F097	CR-2073	82 5/16"	77"	22"	175	A	106.13	95.52	84.90
91F098	CR-2074	42 1/16"	36¾"	22"	84	A	63.10	56.79	50.48

BUD ADD-A-RACK SERIES FOR ENCLOSED RELAY RACKS

For adding panel space to present rack equipment. Made of sturdy steel in a grey hammertone finish. Add to CR-2071, CR-2072, CR-2073 and CR-2074.

Stk. No.	Type	Add to	Ht.	PS	Dep.	Lbs.	1-9	10-14	15-19
91F474	AR-2276	CR-2072	69 9/16"	61¼"	22"	150	85.17	76.65	68.14
91F475	AR-2277	CR-2073	82 5/16"	77"	22"	175	103.75	93.38	83.00
91F476	AR-2278	CR-2074	42 1/16"	36¾"	22"	84	60.15	54.13	48.12

OPEN TYPE RACKS

RR-1263 and RR-1264 are made of 7/64" steel channels, 3" deep, cross bars of same thickness. RR-1265 is a heavy duty rack. Black wrinkle finish.

Stk. No.	Type	Fig.	HxWxD	Pan. Sp.	Lbs.	1-9	10-14	15-19
91F052	RR-1263	C	35 39/64x20x22"	31½x19"	38	21.71	19.53	17.37
91F053	RR-1264	C	70 39/64x20x22"	66½x19"	53	24.80	22.32	19.84
91F054	RR-1265	D	72¼x20⅜x13"	66½x19"	94	54.78	49.30	43.82

DESK TYPE OPEN RELAY RACKS

For mounting transmitters, PA systems, and other heavy components. Depth 12". HG type is light grey hammertone. Shipped knocked-down. With hardware.

Black Fin.	Type	Ham. Grey Fin.	Type	Fig.	Hgt.	Panel Space	Lbs.	1-14	15-24	25-34
91F030	RR-1248	91F677	RR-1248HG	E	24"	21"	15	9.10	8.19	7.28
91F031	RR-1249	91F678	RR-1249HG	E	31"	28"	17	11.19	10.07	8.95

STEEL RACK PANELS

Steel relay rack panels in standard 19" widths., All are ⅛" thick. Uniformly slotted for racks with 1¼x½" spacings. Support up to 200 lbs. Available in black wrinkle, gray wrinkle, or light gray hammertone (HG) finish.

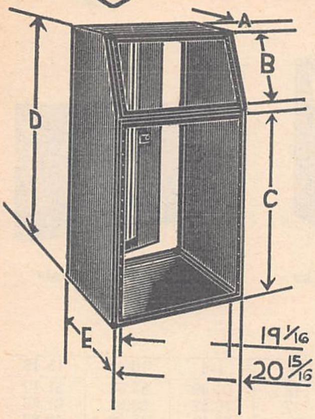
Black	Grey	Type	Ham. Grey	Type	Fig.	Wt. Lbs.	Height	1-49	50-99	100-149
91F300	91F320	PS-1250	91F435	PS-1250HG	F	1¼	1¾"	.84	.76	.67
91F301	91F321	PS-1251	91F436	PS-1251HG	F	2¼	3½"	1.00	.90	.80
91F302	91F322	PS-1252	91F437	PS-1252HG	F	3¼	5¼"	1.25	1.13	1.00
91F303	91F323	PS-1253	91F438	PS-1253HG	F	4½	7"	1.42	1.28	1.14
91F304	91F324	PS-1254	91F439	PS-1254HG	F	6	8¾"	1.75	1.58	1.40
91F305	91F325	PS-1255	91F440	PS-1255HG	F	7	10½"	2.09	1.88	1.67
91F306	91F326	PS-1256	91F441	PS-1256HG	F	8¼	12¼"	2.42	2.18	1.94
91F307	91F327	PS-1257	91F442	PS-1257HG	F	9½	14"	2.84	2.56	2.27
91F308	91F328	PS-1258	91F443	PS-1258HG	F	10¾	15¾"	3.09	2.78	2.47
91F309	91F329	PS-1259	91F444	PS-1259HG	F	11¾	17½"	3.51	3.16	2.81
91F310	91F330	PS-1260	91F445	PS-1260HG	F	13	19¼"	3.84	3.46	3.07
91F311	91F331	PS-1261	91F446	PS-1261HG	F	14¼	21"	4.26	3.83	3.41

ALUMINUM RACK PANELS

Lightweight relay rack panels of ⅛" thick hard aluminum. Designed for standard RTMA mounting in 19" wide racks.

Black	Grey	Type	Ham. Grey	Type	Fig.	Wt. Lbs.	Height	1-49	50-99	100-149
91F340	91F360	PA-1101	91F388	PA-1101HG	F	¼	1¾"	1.09	.98	.87
91F341	91F361	PA-1102	91F389	PA-1102HG	F	¾	3½"	1.42	1.28	1.14
91F342	91F362	PA-1103	91F390	PA-1103HG	F	1	5¼"	1.92	1.73	1.54
91F343	91F363	PA-1104	91F391	PA-1104HG	F	1¾	7"	2.42	2.18	1.94
91F344	91F364	PA-1105	91F392	PA-1105HG	F	2	8¾"	2.84	2.56	2.27
91F345	91F365	PA-1106	91F393	PA-1106HG	F	2½	10½"	3.59	3.23	2.87
91F346	91F366	PA-1107	91F394	PA-1107HG	F	2¾	12¼"	4.09	3.68	3.27
91F347	91F367	PA-1108	91F395	PA-1108HG	F	3	14"	4.76	4.28	3.81
91F348	91F368	PA-1109	91F396	PA-1109HG	F	3½	15¾"	5.34	4.81	4.27
91F349	91F369	PA-1110	91F397	PA-1110HG	F	4	17½"	5.85	5.27	4.68
91F350	91F370	PA-1111	91F398	PA-1111HG	F	4¼	19¼"	6.43	5.79	5.14
91F351	91F371	PA-1112	91F399	PA-1112HG	F	5	21"	7.01	6.31	5.61

CABINETS AND RACKS



IMPERIAL INCLINED PANEL CONSOLES

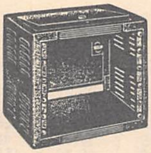
- **FINE WORKMANSHIP**
- **STURDY CONSTRUCTION**
- **COMFORTABLE VIEWING ANGLE**
- **REINFORCED DOOR**
- **BLACK ENAMEL AND GRAY HAMMERTONE FINISH**

The most graceful of all consoles. All structural pieces are sturdy aluminum extrusions and all joints are ball-cornered aluminum castings. Inclined panel is set at 22½° angle for comfortable viewing. Complete assembly includes framework, top, bottom and two sides. Also includes reinforced door with concealed hinges and flush mounted latch. Casters may be attached at the bottom and standard aluminum panels may be used for enclosures. Grey hammertone except black enamel frame.

Stock No.	Type	Dimensions Keyed to Illustration A*	B*	C*	D	E	Shipping Wt., Lbs.	1-9	10-14	15-19
91F480	BI-1828	12 5/16″	10 9/16″	28 1/16″	40 11/16″	18⅝″	38	**155.00**	**139.50**	**124.00**
91F481	BI-2228	15 13/16″	10 9/16″	28 1/16″	40 11/16″	22⅛″	40	**170.00**	**153.00**	**136.00**
91F482	BI-2419	10 9/16″	17 9/16″	24 9/16″	43 21/32″	19 17/32″	42	**190.00**	**171.00**	**152.00**
91F483	BI-2421	12 5/16″	17 9/16″	24 9/16″	43 21/32″	21 9/32″	44	**200.00**	**180.00**	**160.00**

*All dimensions allow 1/16″ clearance for standard panel sizes.

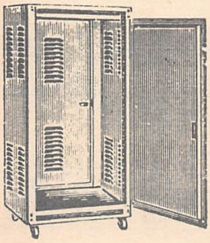
DELUXE METAL CABINET RACKS COMPLETE WITH PANELS



These cabinet racks are so made that a professional appearance is given. The five larger sizes have a hinged rear door, while the smaller sizes have the welded panel in the rear. HG finish is light gray hammertone. Rounded corners.

Black	Grey	Type	HG Fin.	Type	DxWxH	Panel	Wt. Lbs.	1-14	15-24	25-34
91F687	**91F688**	CR-1726	**91F689**	CR-1726HG	14¾x22x8 25/32″	7″	24	**15.28**	**13.75**	**12.22**
91F650	**91F656**	CR-1741	**91F671**	CR-1741HG	14¾x22x10 9/16″	8¾″	28	**16.70**	**15.03**	**13.36**
91F662	**91F664**	CR-1740	**91F668**	CR-1740HG	14¾x22x12 5/16″	10½″	30	**19.12**	**17.21**	**15.30**
91F651	**91F657**	CR-1742	**91F672**	CR-1742HG	14¾x22x14 1/16″	12¼″	32	**20.12**	**18.11**	**16.10**
91F652	**91F658**	CR-1739	**91F673**	CR-1739HG	14¾x22x15 13/16″	14″	34	**21.96**	**19.76**	**17.57**
91F653	**91F659**	CR-1743	**91F669**	CR-1743HG	14¾x22x19 5/16″	17½″	38	**26.22**	**23.60**	**20.98**
91F654	**91F660**	CR-1744	**91F670**	CR-1744HG	14¾x22x28 1/16″	26¼″	47½	**30.14**	**27.13**	**24.11**
91F666	**91F667**	CR-1728	**91F674**	CR-1728HG	14¾x22x33 5/16″	31½″	52	**31.98**	**28.78**	**25.58**
91F655	**91F661**	CR-1745	**91F675**	CR-1745HG	14¾x22x36 13/16″	35″	60	**33.62**	**30.29**	**26.92**
91F663	**91F665**	CR-1727	**91F676**	CR-1727HG	14¾x22x22 13/16″	21″	39½	**28.06**	**25.25**	**22.45**

SUPER DELUXE TWO DOOR RACKS



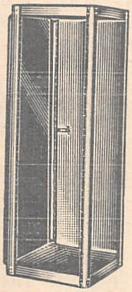
Two doors for easy access to interior. They are hung to swing freely and secured by lever type door handles. Front vertical corners are rounded. The front door is solid. Rear door and sides are louvered to provide ventilation. Uses standard 19″ rack panels. Panel mounting supports are adjustable in increments of one inch. Casters may be used where mobility is desired. Depth 17⅛″; Width 22″. Available in Black wrinkle, Grey wrinkle, or light grey hammertone.

Black	Grey	Type	HG	Type	Height	Wt. Lbs.	1-9	10-14	15-19
93F110	**93F114**	CR-2174	**93F118**	CR-2174HG	42 1/16″	102	**64.13**	**57.72**	**51.30**
93F111	**93F115**	CR-2171	**93F119**	CR-2171HG	47 5/16″	117	**72.65**	**65.39**	**58.12**
93F112	**93F116**	CR-2172	**93F120**	CR-2172HG	66 9/16″	151	**93.77**	**84.39**	**75.02**
93F113	**93F117**	CR-2173	**93F121**	CR-2173HG	82 5/16″	183	**112.56**	**101.30**	**90.05**

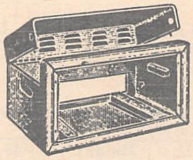
PRESTIGE RELAY CABINET RACKS

A standard rack consists of the framework, top, bottom, 2-ball cornered sides and a ball cornered door. Shipped knocked down with hardware. Grey hammertone.

Stk. No.	Type	Panel	HxWxD	Lbs.	1-9	10-14	15-19
91F087	CR-2280	61¼″	66 9/16x22x22″	104	**108.35**	**97.51**	**86.68**
91F088	CR-2281	66½″	71 13/16x22x22″	115	**115.55**	**103.99**	**92.44**
91F089	CR-2282	77″	82 5/16x22x22″	132	**129.75**	**116.77**	**103.80**



Prestige Racks



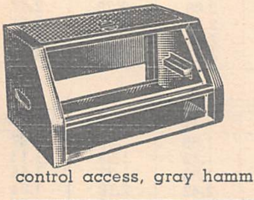
Prestige Cabinets

"PRESTIGE" CABINETS

Stock cabinets of 16 gauge steel for housing quality instruments, etc. Hinged cover . . . solid or perforated. Grommeted finger holes for easy cover lifting. Cover closes by pressure fasteners. Chassis supporting channels and rubber feet. Width 21 9/16, Depth 14⅞″. Finished in gray hammertone.

Stock No.	Type No.	Cover	Overall Height	Panel Space	Lbs.	1-14	15-24	25-34
91F064	C-1440	Solid	9½	7″	21	**28.22**	**25.40**	**22.58**
91F065	C-1441	Solid	11¼	8¾″	23	**30.06**	**27.05**	**24.05**
91F066	C-1442	Solid	13	10½″	25	**32.82**	**29.54**	**26.26**
91F067	C-1550	Perf.	9½	7″	20	**30.56**	**27.50**	**24.45**
91F068	C-1551	Perf.	11¼	8¾″	22	**32.73**	**29.46**	**26.18**
91F069	C-1552	Perf.	13	10½″	24	**35.57**	**32.01**	**28.46**

SLOPING PANEL PRESTIGE CABINETS



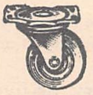
These high-styled cabinets expressly designed for use on top quality equipment. This sloping panel cabinet has the following distinctive features: Ventilated top, full top opening, recessed handle for easy lift, shielded handles in sides, uses standard 19″ Relay Rack. Panels, top panel swept back for easy viewing, rear opening for easy cable or control access, gray hammertone finish, three standard sizes, panel trim bar removable permitting installation or removal of panels that have chassis attached. Cover can be screw fastened into position to minimize tampering with contents of cabinet. Rear opening is 2½x18 inches, panel recess is 1¼″, top depth is 9″, overall width is 22″. Panel Ht. Vert.—3½″.

Stock No.	Type	Ht. x Depth	Pan. Ht. Slope	Shpg. Wt.	1-14	15-24	25-34
91F743	C-1555	11⅞x14 3/16″	7″	22 lbs.	**36.00**	**32.40**	**28.80**
91F744	C-1556	13¼x15 7/32″	8¾″	25 lbs.	**38.65**	**34.78**	**30.92**
91F745	C-1557	14¾x16¼″	10¼″	28 lbs.	**41.45**	**37.30**	**33.16**

SEE NEWARK FOR ALL YOUR BUD CABINET AND RACK NEEDS.

CABINET ACCESSORIES

SWIVEL TRUCK CASTERS



Type RC-7756. Heavy-duty casters for use on relay racks. Four casters will carry a load of 400 pounds. Wheels are high grade hard rubber composition. Ball-bearing mounted. With screws. 10 oz.

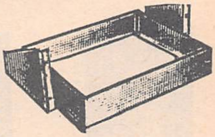
91F082. 1-49 .... 90c
50-99 .... 81c 100-149 .... 72c

Type RC-7757. Same as above, but with light duty casters for lighter load. Shpg. wt., 8 oz.

91F083. 1-49 .... 40c
50-99 .... 36c 100-149 .... 32c

Type RC-7758. Truck Casters.
91F094. 1-49 .... 2.17 50-99 .... 1.95 100-149 .... 1.74

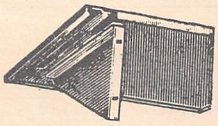
SLIDING DRAWER ASSEMBLY



Used in mounting record players, portable typewriters, instruments, drawer space and many other purposes. Chassis and slide are light gray hammertone. Brackets and channel are etched aluminum. Will support 50 lbs. Fits standard relay rack. Size: 16¾x14x3".

Stk. No.	Mfg.	Description	Lb.	1-14	15-24	25-34
91F826	SD-1717	Assembly	5	11.43	10.29	9.14
91F827	TP-1718	Drawer Plate	1½	2.56	2.30	2.05

SHELF ASSEMBLY



Shelf assembly does not require a panel for support. 16 gauge steel. Overall height 7 inches. (*) Light gray hammertone. Fits standard relay rack.

Black	Gray	HG(*)	Mfg.	Size	Lbs.	1-14	15-24	25-34
91F878	91F880	91F882	SA-1719	16 x 22"	12	10.40	9.36	8.32
91F879	91F881	91F883	SA-1720	20 x 22"	15	10.55	9.50	8.44

CHASSIS SUPPORTING ANGLES

Afford ample support for standard 17'' width chassis or shelves. ⅛" steel. Black. Supplied in pairs.

Stk. No.	Type	Length	Width	Lbs.	1-24	25-49	50-99
91F090	SA-1349	14½''	3''	4	2.25	2.03	1.80
91F091	SA-1350	12''	3''	3	2.17	1.95	1.74

CHASSIS MOUNTING BRACKETS

Insure proper support of chassis in rack. Formed of heavy gauge steel, cut away at bottom to provide clearance for flush mounting of chassis. Black enamel finish. *For chassis height of 4''. Supplied in pairs.

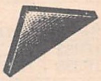
Stk. No.	Type	Dimensions	Lbs.	1-49	50-99	100-149
91F070	MB-458	6½x 8''	1¼	1.09	.98	.87
91F071	MB-448	6½x10''	1¾	1.35	1.22	1.08
91F072	MB-459	6½x11''	2	1.50	1.35	1.20
91F073	MB-449	6½x12''	2	1.75	1.58	1.40
91F074	MB-460	6½x13''	2½	1.69	1.52	1.35
91F075	MB-450*	8½x10''	2¼	1.97	1.77	1.58
91F076	MB-451*	8½x13''	3	2.09	1.88	1.67

RACK SHELVES

Heavy gauge steel shelves. Slide in from rear of cabinet. Require chassis support angles. Black enamel finish.

Stk. No.	Type	Size	Lbs.	1-24	25-49	50-99
91F092	CB-1976	19x1x15''	6½	3.47	3.12	2.78
91F093	CB-1977	19x1x12''	5½	2.64	2.38	2.11

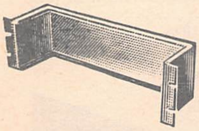
TRIANGULAR TYPE CHASSIS MOUNTING BRACKETS



These brackets will insure proper support of chassis in rack. Constructed of heavy 16 gauge steel with ¾" flange. Finished in black enamel. Made in a triangular shape for added convenience. Sold in pairs only.

Stk. No.	Type	Ht.	Dep.	Wt. Lbs.	1-49 Pair	50-99 Pair	100-499 Pair
91F484	MB1266	5"	5"	1	1.00	.90	.80
91F485	MB1267	7"	7"	1	1.17	1.05	.94
91F486	MB1268	9"	9"	1½	1.42	1.28	1.14

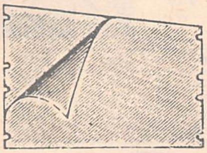
VERTICAL PANEL CHASSIS



To fit standard 19'' racks. Made of No. 14 gauge (.062) Aluminum Flanges are notched for standard rack mounting. All Chassis depths are 5 9/32". Gussets are spot welded in each corner. Natural finish.

Stk. No.	Type	Ht.	Wt. Lbs.	1-24	25-49	50-99
91F493	CB1370	1¾"	½	2.30	2.07	1.84
91F494	CB1371	3½"	1	2.59	2.33	2.07
91F495	CB1372	5¼"	1¼	2.84	2.56	2.27
91F496	CB1373	7"	1½	3.26	2.93	2.61
91F497	CB1374	8¾"	1⅞	3.76	3.38	3.01
91F498	CB1375	10½"	2¼	4.43	3.99	3.54
91F499	CB1376	12¼"	2½	4.84	4.36	3.87
91F479	CB1377	14"	3¼	5.34	4.81	4.27

"SURFACE SHIELD" RACK PANELS

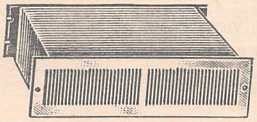


Each panel is covered on both sides with sturdy pressure sensitive white paper to protect against damage. The paper provides an excellent surface for indicating size and position of drilling or milling. These operations may then be done while the paper is still in place, thus minimizing the possibility of surface damage and elimination of surface soil. Paper is not removed until the panel is ready for installation. Panels have standard notching and are 19" wide. Individually wrapped in heavy Kraft-backed cellulose wadding for protection in shipment or storage. Naturally bright aluminum alloy 5005 H-36 pounds with blemish-free mill finish. ⅛" thick.

Stk. No.	Type	Height	Lbs.	1-49	50-99	100-149
91F265	SFA-1831	1¾"	¼	.97	.87	.78
91F266	SFA-1832	3½"	¾	1.34	1.21	1.07
91F267	SFA-1833	5¼"	1	1.80	1.62	1.44
91F268	SFA-1834	7"	1¾	2.21	1.99	1.77
91F269	SFA-1835	8¾"	2	2.66	2.39	2.13
91F270	SFA-1836	10½"	2½	3.34	3.01	2.67

Stk. No.	Type	Height	Lbs.	1-49	50-99	100-149
91F271	SFA-1837	12¼"	2¾	3.85	3.47	3.08
91F272	SFA-1838	14"	3	4.45	4.01	3.56
91F273	SFA-1839	15¾"	3½	4.97	4.47	3.98
91F274	SFA-1840	17½"	4	5.47	4.92	4.38
91F275	SFA-1841	19¼"	4¼	5.99	5.39	4.79
91F276	SFA-1842	21"	5	6.50	5.85	5.20

TRANS-AIRE BLOWER FOR RACK MTG.

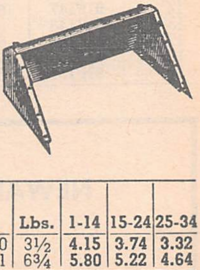


Mounts horizontally or vertically. For exhaust or intake. Oil impregnated disposable fiber glass filter. Either 550 or 250 cfm air displacement at 0° static pressure. Oilite bearings with oil impregnated felt wicks. 2-sp. motor. 110V, 50-60 cyc.

Stk. No.	Type	Motor	HxWxD	1-9	10-14	15-19
91F902	B-23	1/20 h.p.	3½x19x12"	47.10	42.39	37.68
91F637	B-25	1/6 h.p.	5¼x19x14½"	53.35	48.02	42.68
91F903	B-27	1/4 h.p.	7x19x14½"	61.35	55.22	49.08

Stk. No.	Type	Description of Filters	1-14	15-24	25-34
91F904	BF-24	Filter for B-23 above	1.35	1.22	1.08
91F638	BF-26	Filter for B-25 above	1.50	1.35	1.20
91F905	BF-28	Filter for B-27 above	1.65	1.49	1.32

SLOPING PANEL SUPPORT



Designed for oblique view of instrument panel. Engineered so that the entire assembly occupies no more space than the size of the supported panel. Panel support cover can be removed for easy servicing or installation of instruments. Made of heavy gauge steel with attractive contoured edges.

Stk. No. Black	Stk. No. Grey	Stk. No. HG	Supports Panel	Type	Lbs.	1-14	15-24	25-34
91F690	91F691	91F692	7''x19''	1P-1120	3½	4.15	3.74	3.32
91F693	91F694	91F695	10½''x19''	1P-1121	6¾	5.80	5.22	4.64

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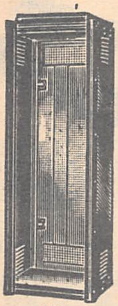
PAR METAL RELAY RACKS & ACCESSORIES



(A) Type ER

(B) Type RX

ENCLOSED AND CHANNEL TYPE RELAY RACKS

Models ER-223 and ER-227 are Deluxe type same as Figure A, Model ER-215 is standard model with rounded front corners. All racks are tapped for 10-32 screws. Shipped knocked down.

GREY DELUXE ENCLOSED TYPE RACKS

Stk. No.	Type	Fig.	H x W x D	Pan. Sp.	Lbs.	NET
91F000	ER-223	A	43¼x22 x18"	36¾x19"	90	**52.20**
91F002	ER-227	A	83½x22 x18"	77 x19"	140	**77.70**
91F004	ER-215	A	66½x22 x16½"	61¼x19"	110	**54.90**

BLACK OPEN TYPE RACKS

Stk. No.	Type	Fig.	H x W x D	Pan. Sp.	Lbs.	NET
90F998	RX-193	B	39⁷⁄₁₆x21 x20⅞"	36¾x19"	45	**21.00**
90F999	RX-195	B	74⁷⁄₁₆x21 x20⅞"	71¾x19"	55	**25.50**

All Above Chicago Stock and F.O.B. Chicago

DESK TYPE OPEN RELAY RACKS

For mounting transmitters, PA systems, and other heavy components. Panels set in recess so that no edges are exposed. Black wrinkle finish. Depth 12". Shipped knocked-down. With hardware.

Stk. No.	Type	Hgt.	Panel Space	Lbs.	NET EACH
91F032	TR-2520	24"	21"hx19"w	17	**8.70**
91F033	TR-3220	31"	28"hx19"w	20	**9.90**

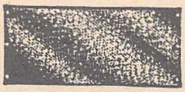
19" STEEL RACK PANELS

All are ⅛" thick. Uniformly slotted for racks with 1¼-½" spacings. Available in black or slate-gray baked wrinkle enamel finish.

Height	Black	Mfr. No.	Gray	Mfr. No.	Lbs.	NET
1¾"	**91F100**	6600	**91F120**	G-6600	2	**.87**
3½"	**91F101**	6601	**91F121**	G-6601	3	**1.02**
5¼"	**91F102**	6602	**91F122**	G-6602	4	**1.29**
7"	**91F103**	6603	**91F123**	G-6603	5	**1.56**
8¾"	**91F104**	6604	**91F124**	G-6604	7	**1.86**
10½"	**91F105**	6605	**91F125**	G-6605	8	**2.10**
12¼"	**91F106**	6606	**91F126**	G-6606	9	**2.49**
14"	**91F107**	6607	**91F127**	G-6607	10	**2.89**
15¾"	**91F108**	6608	**91F128**	G-6608	12	**3.24**
17½"	**91F109**	6609	**91F129**	G-6609	13	**3.60**
19¼"	**91F110**	6610	**91F130**	G-6610	14	**3.98**
21"	**91F111**	6611	**91F131**	G-6611	15	**4.29**

19" ALUMINUM RACK PANELS

Lightweight relay rack panels made of ⅛" thick half hard aluminum. Uniformly slotted for racks with 1¼-½" spacings. Available in black or slate-gray baked wrinkle enamel finish.



Height	Black	Mfr. No.	Gray	Mfr. No.	Lbs.	NET
1¾"	**91F140**	6675	**91F160**	G-6675	1	**.96**
3½"	**91F141**	6676	**91F161**	G-6676	1	**1.35**
5¼"	**91F142**	6677	**91F162**	G-6677	2	**1.86**
7"	**91F143**	6678	**91F163**	G-6678	2	**2.37**
8¾"	**91F144**	6679	**91F164**	G-6679	3	**2.88**
10½"	**91F145**	6680	**91F165**	G-6680	3	**3.42**
12¼"	**91F146**	6681	**91F166**	G-6681	4	**3.89**
14"	**91F147**	6682	**91F167**	G-6682	4	**4.56**
15¾"	**91F148**	6683	**91F168**	G-6683	5	**5.13**
17½"	**91F149**	6684	**91F169**	G-6684	5	**5.60**
19¼"	**91F150**	6685	**91F170**	G-6685	6	**6.27**
21"	**91F151**	6686	**91F171**	G-6686	7	**6.87**

PAR METAL DELUXE DESK CONSOLES

Newark can supply these standardized units which are adaptable to individual requirements on special order only. The vast flexibility of these units enables you to design the console of your choice without costly, custom-built construction. Can be put together quickly and easily. Write for a complete catalog and price list.

PAR METAL STANDARD TYPE ROLLER TRUCKS

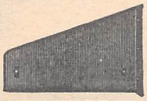
All have rounded corners at front and chrome finished red-striped trim. Slate gray ripple finish. 2" wider than racks for better distribution of weight. Ball-bearing swivel-type casters with 2" rubber composition wheels.

91F040. Type RT-410. Inside clearance, 21¼x15½". Will fit the following racks: Types DL-1713, DL-2613, DL-3513. Wt. 22 lbs. **NET**................**10.47**

91F041. Type RT-411. Inside clearance. 22⅝x17¼". Will fit ER-215 rack. Wt., 22 lbs. **NET**................**10.97**

91F027. Type RT-418. Inside clearance 23⅞x18¾". Will fit types ER-223 and ER-227 racks. Wt., 22 lbs. **NET**................**13.65**

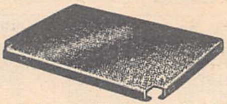
PAR METAL CHASSIS BRACKETS



For use with steel chassis. Rack panels should be at least 7" high. Provide excellent chassis support. Made of heavy gauge steel., Supplied in pairs. Black enamel finish. With mounting holes drilled.

Stk. No.	Type	Dimensions	Lbs.	Pair
91F046	SB-78	For 8" base	2	**1.05**
91F047	SB-710	For 10" base	2	**1.23**
91F048	SB-711	For 11" base	3	**1.32**
91F049	SB-713	For 13" base	3	**1.50**

CABINET SHELVES



Expressly designed to fit into enclosed racks of standard 19" width type. All shelves are 1" high. Shpg. wt., 10 pounds.

ER-2112. For deluxe type ER-215 rack, or others with inside depth of 15¼" requiring shelf, 13"dx21¹⁵⁄₁₆"w.
91F036. Black ripple. **NET**................**3.60**

R-2128. For DL-1713, DL-2613, DL-3513 racks or others 15" deep, requiring shelf, 12"dx21³⁄₁₆"w.
91F037. Black ripple. **NET**................**2.94**

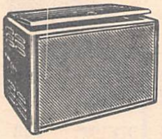
ER-2212. For ER-223 and ER-227 racks, or others with a depth of 16¾", requiring shelf, size-15"dx21¹⁵⁄₁₆"w.
91F038. Black ripple. **NET**................**3.60**

NEWARK can supply all Par Metal products at factory competitive quantity prices.

Make NEWARK your 1-point source for all your electronic needs.

CABINETS, CHASSIS, AND PANELS

PAR METAL PRODUCTS



A
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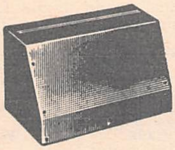
CA-300



B
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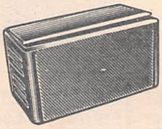
SF-500



C
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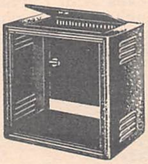
CA-200



D
SERIES
DL

PAR METAL DELUXE TYPE DESK CABINETS

Fig. A. Attractive steel cabinets for Amateur and commercial equipment. Hinged top, removable front panel and full width opening at rear for leads. Louvred ends for ventilation. Slate gray ripple finish. Chrome trim.

Stk. No.	Type	HxWxD	Panel Size	For Chassis	Lbs.	NET
91F500	CA-300	9x12 3⁄16x 8''	8½x10''	7x 9x2''	6	**7.95**
91F501	CA-301	9x16⅛x 8''	8½x14''	7x13x2''	7	**9.00**
91F502	CA-302	10x17⅛x11''	9½x15''	10x14x3''	8	**12.15**
91F503	CA-303	10x20⅛x 9''	9½x18''	8x17x3''	11	**12.15**
91F504	CA-304	13x20⅛x12''	12½x18''	10x17x3''	15	**13.65**

PAR METAL SLOPING FRONT CABINETS

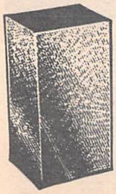
Fig. B. Latest-style utility cabinets. Full-sized removable sloping panel makes controls and meters readily accessible. Ventilated sides and rear. Opening at rear for cables. Slate gray ripple finish. Chrome trim.

Stk. No.	Type	HxWxD	For Chassis	Lbs.	NET
91F505	SF-500	8x 8x 8''	7x 7x2''	6	**5.70**
91F506	SF-501	8x10x 8''	7x 9x2''	7	**6.30**
91F507	SF-502	8x14x 8''	7x13x2''	8	**6.75**
91F508	SF-503	9x18x 8''	7x17x3''	10	**8.40**
91F509	SF-504	12x18x12''	10x17x3''	14	**10.20**

PAR METAL ROUNDED CORNER TYPE CABINETS

Fig. C. Rounded-corners for that custom-built look. Top door has full length piano hinge. Removable front panel. Louvres on sides and opening at rear for cables. Slate gray ripple finish.

Stock No.	Mfrs. No.	HxWxD	Panel Size	For Chassis	Wt. Lbs.	NET
91F510	CA-200	8½x10 3⁄16x 8'	8½x 8''	7x 7x2''	6	**5.85**
91F511	CA-201	8½x12 3⁄16x 8'	8½x10''	7x 9x2''	7	**6.30**
91F512	CA-202	8½x16 3⁄16x 8'	8½x14''	7x13x2''	8	**7.65**
91F513	CA-203	9½x17 3⁄16x11'	9½x15''	10x14x3''	11	**10.05**
91F514	CA-204	12½x20 3⁄16x12'	12½x18''	10x17x3''	15	**11.85**



STEEL UTILITY CASES

Popular utility cases for amplifiers, monitors, input stages, meters, transceivers, etc. Excellent for Amateur, experimenter and builder. Removable top and bottom covers may be fastened to case with self-tapping screws provided. Available in steel with black ripple finish. 20 gauge sheet steel with flanged edges and spot-welded corners.

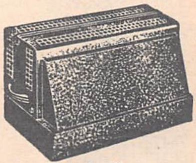
Stk. No.	Type	HxWxD	Lbs.	NET
91F560	MC-442	4x 4x 2''	1	**1.11**
91F561	MC-453	4x 5x 3''	2	**1.32**
91F562	MC-596	5x 9x 6''	4	**2.52**
91F563	MC-666	6x 6x 6''	3	**2.04**
91F564	MC-8101	8x10x10''	7	**3.87**
91F565	MC-8107	8x10x 7''	6	**3.45**

PAR METAL STREAMLINED METAL CABINET RACKS

Fig. D. Vertical front corners, rounded. Red striped chrome trim. Made of 1⁄16'' steel, all joints welded. Sides and back louvred. Holes tapped for 10-32 screws. For standard 19'' panels. Slate gray finish.

Black	Grey	Type	HxWxD	Panel	Door	Lbs.	NET
91F015	**91F021**	DL-128	10½x21½x15''	8¾''	top	28	**16.20**
91F016	**91F022**	DL-1225	14 x21½x15''	12¼''	top	29	**19.20**
91F017	**91F023**	DL-1413	15¾x21½x15''	14''	top	32	**21.00**
91F018	**91F024**	DL-1713	19¼x21½x15''	17½''	top/rear	38	**22.80**
91F019	**91F025**	DL-2613	28 x21½x15''	26¼''	top/rear	48	**26.70**
91F020	**91F026**	DL-3513	36¾x21½x15''	35''	top/rear	58	**29.55**

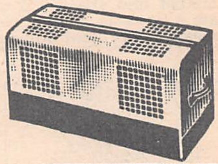
SLOPING FRONT TYPE



This sturdy, use-tested sloping front unit incorporates the most modern up-to-date styling. Its streamlined design utilizes round corners, and red-stripe chrome molding and handy side handles. Separately removable grille cover and front panel. Panel extends 3 inches from face of cover. Covers are 6½ inches high. Bottom plate included. Slate gray ripple finish.

Stk. No.	Type	Chassis Size	Lbs.	NET
91F521	F-10120	10x12x3''	11	**9.15**
91F522	F-10170	10x17x3''	13	**10.80**
91F523	F-13170	13x17x3''	15	**11.85**

ROUNDED CORNER TYPE



Red-striped chrome finished molding on top. Two chrome side handles. Slate gray ripple removable screen cover is 6'' high. Black ripple chassis is drilled for bottom plates.

Stk. No.	Type	Chassis Size	Lbs.	NET
91F528	DF-510	5x10x3''	7	**5.10**
91F529	DF-615	6x14x3''	8	**5.67**
91F530	DF-717	7x17x3''	9	**6.57**
91F531	DF-1012	10x12x3''	9	**6.57**
91F532	DF-1017	10x17x3''	10	**7.35**
91F533	DF-1317	13x17x3''	12	**8.76**

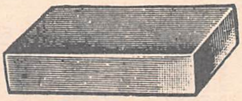
ALL PAR METAL PRODUCTS ARE AVAILABLE

FROM NEWARK

AT FACTORY COMPETITIVE QUANTITY PRICES

POPULAR MAKE STEEL CHASSIS AND BOTTOM PLATES

Quality zinc-plated 1-piece steel chassis and bottom plates for any use. These steel chassis have welded corners. No. 20 gauge steel, except *1⁄16'' steel. Average Shpg. wt. approx. 3 lb.



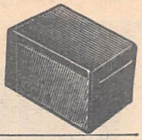
	Chassis Only			Bottom Plates		
Size	Stk. No.	1-24	25-49	Stk. No.	1-49	50-99
5x7x2''	**90F855**	1.30	1.17	**90F876**	.69	.62
5x10x3''	**90F831**	1.84	1.66	**90F878**	.73	.66
7x7x2''	**90F832**	1.50	1.35	**90F879**	.97	.87
7x9x2''	**90F833**	1.59	1.43	**90F880**	.99	.89
7x11x2''	**90F834**	1.67	1.50	**90F881**	1.07	.96
8x12x3''	**90F854**	2.34	2.11	**90F875**	1.34	1.21
7x13x2''	**90F835**	1.92	1.73	**90F882**	1.20	1.08
4x17x3''	**90F837**	2.14	1.93	**90F884**	1.07	.96

	Chassis Only			Bottom Plates		
Size	Stk. No.	1-24	25-49	Stk. No.	1-49	50-99
7x17x3''	**90F853**	2.59	2.33	**90F898**	1.37	1.23
8x17x2''	**90F838**	2.34	2.11	**90F885**	1.54	1.39
8x17x3''	**90F839**	2.62	2.39	**90F885**	1.54	1.39
10x12x3''	**90F840**	2.25	2.03	**90F887**	1.57	1.41
10x14x3''	**90F841**	2.44	2.20	**90F888**	1.33	1.20
10x17x2''	**90F842**	2.39	2.15	**90F889**	1.60	1.44
10x17x3''	**90F843**	3.05	2.75	**90F889**	1.60	1.44
10x17x4''	**90F844**	3.51	3.16	**90F889**	1.60	1.44
11x17x2''	**90F846***	2.81	2.53	**90F893**	1.60	1.44
11x17x3''	**90F847***	3.49	3.14	**90F893**	1.60	1.44
12x17x2''	**90F848**	3.09	2.78	**90F895**	1.87	1.68
12x17x3''	**90F849**	3.67	3.30	**90F895**	1.87	1.68
13x17x2''	**90F850***	3.72	3.35	**90F897**	2.24	2.02
13x17x3''	**90F851***	4.07	3.66	**90F897**	2.24	2.02
13x17x4''	**90F852***	4.68	4.21	**90F897**	2.24	2.02

LMB® CABINETS AND CHASSIS

NEWARK CARRIES
COMPLETE LINES

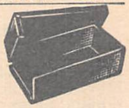
UTILITY ENCLOSURES



Suitable as instrument, amp or transmitter case. Bottom plate of chassis and hood removes with release of 4 screws, allows quick entry to parts without removing front or back panels. Heavy gauge aluminum. Plain or grey hammertone. *Takes 11x17x3" chassis.

Type	Size	Lbs.	Plain	NET	GH	NET
W-1A	7x5x4½''	1½	91F1174	3.97	91F1083	4.84
W-1C	8½x6⅛x5''	2	91F1176	4.43	91F1085	5.33
W-1D*	18x9x11''	5	91F1177	9.75	91F1086	13.13

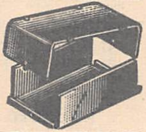
FLANGLOCK BOX CHASSIS



Dust proof in endlock construction. Water and rain proof if properly treated. Sturdy construction and 100% shielded. Aluminum. Unfinished or Gray Hammertone.

Type	Size	Lbs.	Plain	NET	GH	NET
221EL	2¾x3⅛x1⅝''	¼	91F1154	1.13	91F1063	1.13
321EL	3¼x2⅛x1⅝''	¼	91F1155	1.13	91F1064	1.13
421EL	4x2⅛x1⅝''	¼	91F1156	1.13	91F1065	1.13
422EL	4x2¼x2¼''	¼	91F1157	1.29	91F1066	1.29
424EL	4x2x4''	⅜	91F1158	1.98	91F1067	1.98
435EL	4x3x5''	½	91F1159	2.19	91F1068	2.19
444EL	4x4x4''	½	91F1160	1.89	91F1069	1.89
531EL	5¼x3x1½''	⅜	91F1161	1.29	91F1070	1.29
532EL	5¼x3x2⅛''	⅜	91F1162	1.47	91F1071	1.47
534EL	5⅝x3x4''	⅝	91F1163	2.06	91F1072	2.06
543EL	5x4x3''	½	91F1164	1.87	91F1073	1.87
546EL	5x4x6''	¾	91F1165	2.74	91F1074	2.74
645EL	6x4x5''	¾	91F1166	2.60	91F1075	2.60
666EL	6x6x6''	1⅛	91F1167	3.39	91F1076	3.39
695EL	6x9x5''	1 5/16	91F1168	3.84	91F1077	3.84
753EL	7x5x3''	¾	91F1169	2.60	91F1078	2.60
754EL	7x5x4''	⅞	91F1170	2.76	91F1079	2.76
1063EL	10x6x3½''	1¼	91F1171	3.51	91F1080	3.57
1085EL	10x8x5''	2½	91F1172	4.42	91F1081	4.42
1221EL	12x2x1¾''	½	91F1173	1.87	91F1082	1.87

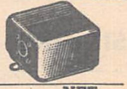
INTERLOCKING CHASSIS



Protects under-chassis wiring and components. Easily fabricated into amp, junction boxes, oscillators. Interlocking type. Simple and speedy to assemble—only 2 set screws to put in place. Gray Hammertone or Plain Aluminum finish.

Type	Size	Lbs.	Plain	NET	GH	NET
M00	2¼x1½x1⅜''	⅙	91F1105	.57	91F1000	.57
00Z	2 5/16x2⅛x1¾''	⅙	91F1106	.64	91F1001	.64
000	3¼x2⅛x1⅝''	¼	91F1107	.68	91F1002	.68
00	4x2⅛x1⅝''	¼	91F1108	.71	91F710	.71
100	2¾x2⅛x2⅝''	¼	91F1109	.89	91F1003	.89
101	4¼x2¼x1¼''	¼	91F1110	.87	91F1004	.87
102	4x2x2¾''	⅜	91F1111	1.02	91F1005	1.02
107	4x2¼x2¼''	¼	91F1112	.96	91F1006	.96
108	5x2¼x2¼''	⅜	91F1113	1.03	91F711	1.03
135	3¾x3x2⅛''	⅜	91F1114	.97	91F1007	.97
136	5¼x3x2⅛''	⅜	91F1115	1.08	91F712	1.08
650	6½x2⅛x1⅝''	¼			91F1015	1.05
137	8x3x2¾''	⅝	91F1116	1.61	91F1008	1.61
850	8½x2⅛x1⅝''	⅜			91F1016	1.35
138	6¼x3½x2⅛''	½	91F1117	1.32	91F1009	1.32
139	5½x3x1¼''	⅜	91F1118	1.01	91F1010	1.01
140	3x4x5''	½	91F1119	1.29	91F713	1.61
141	6x4x3''	⅝	91F1120	1.44	91F1011	1.72
142	6x4x5''	¾	91F1121	1.68	91F714	2.11
143	4x4x2''	⅜	91F1122	1.33	91F1012	1.33
144	10x4x2½''	⅝	91F1123	2.19	91F715	2.19
145	7x5x3''	¾	91F1124	2.11	91F1013	2.11
146	8x6x4½''	1⅜	91F1125	2.99	91F1014	2.99
15	12x2x1¾''	½			91F1017	1.61

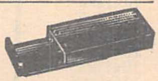
MINIATURE BOX CHASSIS



With mounting ears. Cadmium plated, all steel construction. Ideal for subminiature assemblies. May be mounted in any position. With covers. ***Not supplied with mtg. ears.**

Stk. No.	Type	Size	Lbs.	NET
91F1100	*MO-12	2x1¼x1''	⅜	.72
91F1101	MO-17	2x1¾x1''	¼	.80
91F1102	MO-18	2x2x1¼''	¼	.80
91F1103	MO-22	3x1¾x¼''	½	.80

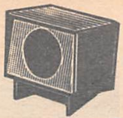
SLIDE COVER BOXES



These boxes lend themselves to many uses including communication equipment, terminal block boxes, or custom equip. Aluminum. Finished in gray Hammertone.

Stk. No.	Type	Size	Lbs.	Price
91F1191	16	13x3⅛x2⅝"	1⅛	2.52
91F1018	17	13x4⅛x2⅝"	1⅛	3.95
91F1019	18	13x5¼x2⅝"	1¼	4.30
91F1020	19	17x3⅛x2⅝"	1¼	4.15

"GLAMOR CABINETS"



Suitable for meter, transistor construction, and instrument cases. Outstanding appearance. Made of die folded aluminum. Plain Aluminum or Gray Hammertone.

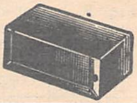
Type	Size D W H	Lbs.	Plain	NET	GH	NET
W-2AP	3½x4x3'' 2¼" meter hole	¼	91F1179	1.88	91F1088	2.18
W-2AP	3½x4x3'' 3¼'' meter hole	¼	91F1180	1.88	91F1089	2.18
W-2A	3½x4x3½''	¼	91F1178	1.93	91F1087	2.28
W-2B	3x7x3½'' 2¼" meter hole	¾		2.25	91F1090	2.67
W-2B	3x7x3½'' 3¼'' meter hole	¾	91F1182	2.25	91F1091	2.67
W-2C	3⅜x7x3½''	¾	91F1183	2.93	91F1092	3.36
W-2D	4½x4½x3½''	½	91F1186	2.30	91F1095	2.60

"DELUXE GLAMOR CABINETS"

Same as above but with built in chassis.

Type	Size D W H	Lbs.	Plain	NET	GH	NET
W-2F	7½x4½x5''	1¼	91F1187	4.40	91F1096	5.18
W-2G	13x10x5¾''	3			91F1097	11.06
W-2H	7x11x6¼''	2⅜	91F1188	7.38	91F1098	8.63
W-2J	8x11½x7½''	3	91F1189	8.10	91F1099	9.35

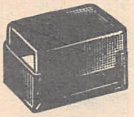
TITE-FIT BOX CHASSIS



An orthodox construction that is engineered to insure greatest satisfaction for both industry and private users. Aluminum construction. Unfinished or Gray Hammertone.

Type	Size	Lbs.	Plain	NET	GH	NET
T-F770	2¾x2⅛x1⅝''	¼	91F1126	.62	91F1032	.81
T-F771	2¾x2⅛x2¾''	¼	91F1127	.68	91F1033	.95
T-F772	3¼x2⅛x1⅛''	¼	91F1128	.62	91F1034	.84
T-F773	3½x2⅛x1⅝''	¼	91F1129	.62	91F1035	.84
T-F774	4x2⅛x1⅝''	¼	91F1130	.62	91F1036	.95
T-F775	4x2¼x2¼''	¼	91F1131	.75	91F1037	.97
T-F776	4x2x2¾''	¼	91F1132	.75	91F1038	1.00
T-F777	4¼x2¼x1½''	¼	91F1133	.72	91F1039	1.00
T-F778	5x2¼x2¼''	¼	91F1134	.78	91F1040	1.03
T-F779	5x4x3''	½	91F1135	.94	91F1041	1.32
T-F780	5¼x3x2⅛''	¼	91F1136	.82	91F1042	1.12
T-F781	6x5x4''	¾	91F1137	1.47	91F1043	1.83
T-F782	7x5x3''	¾	91F1138	1.40	91F1044	1.86
T-F783	8x6x3½''	1	91F1139	1.72	91F1045	2.25

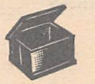
JIFFY BOX CHASSIS



Does not use screws. Closed by snap clamps. Opened by slight finger pressure. Ideal for use where box must be used quicklv and often. Aluminum. Unfinished or Gray Hammertone.

Type	Size	Lbs.	Plain	NET	GH	NET
J-870	2¾x2⅛x1⅝''	¼	91F1140	.62	91F1046	.81
J-871	2¾x2⅛x2¾''	¼	91F1141	.68	91F1047	.95
J-872	3¼x2⅛x1⅛''	¼	91F1142	.62	91F1048	.84
J-873	3½x2⅛x1⅝''	¼	91F1143	.62	91F1049	.84
J-874	4x2⅛x1⅝''	¼	91F1144	.62	91F1050	.95
J-875	4x2¼x2¼''	¼	91F1145	.75	91F1051	.97
J-876	4x2x2¾''	¼	91F1146	.75	91F1052	1.00
J-877	4¼x2¼x1½''	¼	91F1147	.72	91F1053	1.00
J-878	5x2¼x2¼''	¼	91F1148	.78	91F1054	1.03
J-879	5x4x3''	½	91F1149	.94	91F1055	1.32
J-880	5¼x3x2⅛''	¼	91F1150	.82	91F1056	1.12
J-881	6x5x4''	¾	91F1151	1.47	91F1057	1.83
J-882	7x5x3''	¾	91F1152	1.40	91F1058	1.86
J-883	8x6x3½''	1	91F1153	1.72	91F1059	2.25

UTILITY BOXES



No mounting flanges, affording more space for building. Aluminum construction. Gray Hammertone finish.

Stock No.	Type	Size	Lbs.	Aluminum Gauge	Price
91F1024	U-C 970	4x4x2''	¼	.040	1.82
91F1025	U-C 971	5x4x3''	½	.040	1.98
91F1026	U-C 972	6x5x4''	⅝	.040	2.52
91F1027	U-C 973	6x6x6''	1	.040	3.02
91F1028	U-C 974	7x5x3''	¾	.040	3.48
91F1029	U-C 975	9x6x5''	1½	.051	3.89

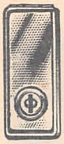
SHIELDED CHASSIS

For laboratory, industrial production, experimentation and wherever large shielded chassis is required. Aircraft aluminum construction. Plain.

Stock No.	Type	Size	Lbs.	Price
91F1021	20	7½x7x2''	¾	1.67
91F1022	21	13x10x3''	2	4.34

ELECTRICAL COMPONENTS

SPECIALIZED ELECTRICAL COMPONENTS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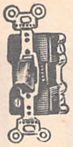
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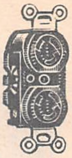
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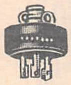
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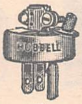
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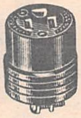
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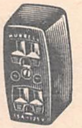
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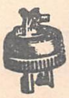
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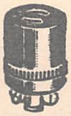
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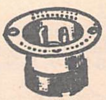
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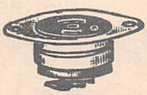
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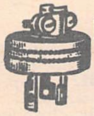
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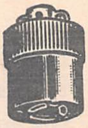
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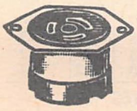
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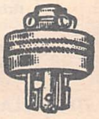
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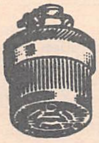
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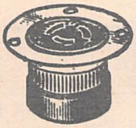
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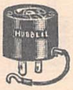
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COVER PLATE & LOCK ASSEMBLY

32F718. Type 96061. (Fig. A) Straight cylinder type lock. All locks are keyed alike. Fits any metal wall plate. Drawn brass cover locks securely over plate screws. Shpg. wt., 8 oz.

Net Ea.	Net Ea. Ctn. —2	Net Ea. Std. Pkg. —10
8.07	7.12	6.17

32F719. Type 96062. Same as above locking attachment, except that all locks are keyed differently.

8.07	7.12	6.17

A. C. PILOT LIGHT SWITCH

32F720. Type 1277. (Fig. B) Operates simultaneously with pilot light. Keeps you alert to equipment in operation. Single pole, 15 A. 120 VAC pilot light "presswitch" with red handle. Brown front, yellow back. Size: 3.281 x 2.437". Shpg. wt., 4 oz.

Net Ea.	Net Ea. Ctn. —10	Net Ea. Std. Pkg. —30
1.95	1.72	1.49

TWIST-LOCK PLUGS

3 wire grounding type, 15 amperes, 125 volts.

Stk. No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F721	4700	C	Receptacle	50	10	**2.52**	**2.22**	**1.92**
32F722	4713	C	Receptacle	50	10	**1.68**	**1.48**	**1.28**
32F723	4715	C	Receptacle	50	10	**1.85**	**1.63**	**1.41**
32F724	4716	D	Plug	50	10	**1.43**	**1.26**	**1.09**
32F725	4720	D	Plug	50	10	**1.22**	**1.08**	**.94**
32F726	4726	D	Plug	50	10	**1.01**	**.89**	**.77**

3-WIRE GROUNDING TYPE SINGLE OUTLETS

Polarized for grounding exposed metal parts of portable electrical equipment. 5279 has flush housing with permanent type mounting plate (2.437 Dia.). Male recessed 5278 may be permanently attached. 5207 (Dia. 1.531) is "insulpdene" connector body. 5280 (1.531 Dia.) grounding cap may be anchored permanently by thumb screw. All are 15A., 125 V.

32F727	5278	......	Male Base	50	10	**1.02**	**.90**	**.78**
32F728	5279	......	Female Base	50	10	**1.50**	**1.32**	**1.15**
32F729	5280	E	Male Cap.	50	10	**1.28**	**1.13**	**.98**
32F730	5207	F	Fem. Con.	50	10	**1.31**	**1.16**	**1.00**

DUPLEX GROUNDING ADAPTER

Type 5291. Converts existing parallel or "t" slot duplex receptacles to 3 wire, 15A., 125V. grounding receptacles. Captive mounting screw threads into existing receptacle. Phosphor bronze prongs connect metal plate to ground circuit. 3.328"x 1.750"x1.421". Shpg. wt., 6 oz.

32F731	5291	G	Brwn. Bak.	50	10	**1.75**	**1.54**	**1.34**

Type 5266. 3-Wire grounding type caps and bodies, polarized. 15 amps, 125 v. Fitted with "U" shaped blade for grounding.

32F707	5266	Rubber Cap	50	10	**.76**	**.67**	**.58**

Positive contact connectors that never disconnect accidentally. Simply "plug-in"—twist—and they're locked. Wherever motor-driven tool or portable electrical apparatus are used.

Twist-Lock connecting devices provide maximum safety and efficiency. Conform to National Electrical Code. UL approved.

10 AMP 2-WIRE CONNECTORS MIDGET SIZE—UNPOLARIZED

Cord-grip connectors accommodate .312" to .500" diameter cords. Brown bakelite, with metal casings plated to resist corrosion. Female receptacles will accept either polarized or non-polarized caps. 250 volts at 10 amps; 125 volts at 15 amps.

Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
38F500	7428	H	Male Plug	50	10	**.38**	**.33**	**.29**
38F501	7427	I	Fem. Con.	50	10	**.70**	**.62**	**.53**
38F502	7466	J	Male Base	50	10	**.82**	**.72**	**.63**
38F503	7468	K	Fem. Base	50	10	**.99**	**.87**	**.76**
38F518	7479*	H	Male Cap	50	10	**.45**	**.39**	**.34**

*Has one wide and one narrow blade to fit corresponding polarized slots of receptacles.

10 AMP 3-WIRE CONNECTORS MIDGET SIZE—POLARIZED

Cable connectors accommodate .281" to .421" diameter cords. Neutral terminal copper-plated for identification. Rated: 250 volts at 10 amps; 125 volts at 15 amps.

38F504	7485	H	Male Plug	50	10	**.90**	**.79**	**.69**
38F505	7484	I	Fem. Con.	50	10	**1.30**	**1.14**	**.99**
38F506	7486	J	Male Base	50	10	**1.15**	**1.01**	**.88**
38F507	7487	K	Fem. Base	50	10	**1.40**	**1.23**	**1.07**

STANDARD SIZE—POLARIZED

10 amp.-3 wire cable connectors accommodate .296" to .562" dia. cables. Type 7572 is armored cap. All metal casings and flanges are plated to resist corrosion. Bodies of black bakelite. Rated: 250 volts at 10 amps; 125 volts at 15 amps.

Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
38F509	7572	L	Male Plug	50	10	**1.06**	**.94**	**.81**
38F510	7555	M	Fem. Con.	50	10	**1.68**	**1.49**	**1.29**
38F511	7556	N	Male Base	50	10	**1.40**	**1.23**	**1.07**
38F512	7557	N	Fem. Base	50	10	**1.55**	**1.37**	**1.18**

STANDARD SIZE—POLARIZED

Heavy duty plugs and receptacles. Rated: 600 volts at 10 amps.; 250 volts at 20 amps. Cable plug and connector take .437" to .750" cables. 20 amp.-3 wire connectors.

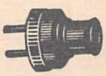
38F513	7311	P	Male Plug	30	10	**1.53**	**1.35**	**1.17**
38F514	7313	R	Fem. Con.	30	10	**2.35**	**2.08**	**1.80**
38F515	7327	S	Male Base	30	10	**1.81**	**1.60**	**1.38**
38F516	7328	S	Fem. Base	30	10	**2.78**	**2.46**	**2.13**

(T) 3-WIRE GROUNDING TYPE ADAPTER

38F517. Type 5273-L. For grounding exposed metal parts of portable electrical equipment. Designed to adapt standard 2-wire convenience outlets for use with new 3-wire grounding caps. 15 amps. 125 volts. Shpg. wt., 4 oz. Std. pkg.—50; Carton—10.

NET EA.—Brkn. Ctn......... **.81** **Carton**........ **.71** **Std. Pkg.**........ **.62**

RUBBER FINGER GRIP CAPS



38F520. 9972. 15 amps. 125V. Parallel Blades. Without cord-grips. Cord hole dia. .312" to .437". Std. Pkg.—100; Carton—25.

NET EA.—Brkn. Ctn......... **.32** **Carton**........ **.29** **Std. Pkg.**........ **.25**

38F508. **9756.** Standard rubber plug with cord-grip. For .406" to .625" diameter cord. Rated: 125 volts at 15 amps. Std pkg.—50; Carton—10.

NET EA.—Brkn. Ctn......... **.53** **Carton**........ **.47** **Std. Pkg.**........ **.41**

2 wire caps and connectors rated 15A, 125 volts. Type 7057 plug, 5612 female connector body. Shpg. wt., 2 oz.

32F705	7057	Par. Blades	50	10	**.57**	**.51**	**.44**
32F706	5612	Body	100	10	**.61**	**.54**	**.47**

SAFETY GROUNDING RECEPTACLE

Type SG-62. Accepts all U-shaped or round-pin std. grounding caps. Shunts current harmlessly around objects inserted in slots by children. Grounds tools and appliances equipped with std. grounding caps. 15 amps, 125 v. silver plated contact springs. Shpg. wt., 4 oz.

Stk. No.	Type	Descrip.	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F717	SG-62	3-Wire	50	10	**2.21**	**1.95**	**1.69**

FLUORESCENT STARTERS

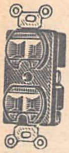
With ceramic condensers Neostart.

HUBBELL
FS-4
W

Stk. No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F713	FS-2	W	14, 15 & 20 Watt Lamps	100	10	**.25**	**.22**	**.19**
32F714	FS-4	W	13, 30 & 40 Watt Lamps	100	10	**.25**	**.22**	**.19**
32F715	FS-850	W	90, 100 Watt Lamps	50	10	**1.08**	**.95**	**.83**
32F716	FS-40	W	40 Watt Lamp	100	10	**.71**	**.63**	**.55**

WIRE ACCESSORIES

HARVY HUBBELL CONNECTORS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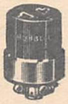
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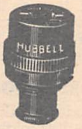
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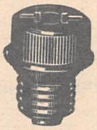
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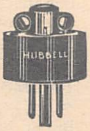
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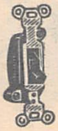
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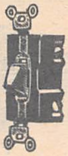
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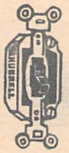
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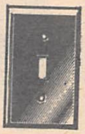
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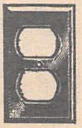
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CONVENIENCE OUTLETS

Type 9595. Duplex convenience outlets. Side wired-double T-Slots. 15 amps, 125 volts. Breakoff feature for two-circuit installations. Washer ears.

Type 5252. 3-Wire grounding type convenience outlets. Polarized side wired only. Duplex flush mounting receptacle. For grounding exposed metal parts of portable electrical equipment. Unit is side wired with 2 grounding terminals and with parallel slots.

Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F700	9595	A	Brn. Bakelite	100	10	.47	.42	.36
32F701	5252	A	Brn. Bakelite	50	10	.98	.87	.75

CORD CONNECTORS

Type 7084. Cord connector bodies with double T-Slots—Blk. Bakelite. 15 amps, 125 v. With cord grip.

Type 9952. Rubber cord connector bodies with double T-Slots. 15 amps, 125 v. Cord diameter: .312" to .468".

Type 5269. 3-Wire cord connectors grounding type. 115 amps, 125 v. With cord grip. Cord diameter: .296" to .562".

Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F702	7084	B	Body	50	10	.94	.83	.72
32F703	9952	C	Body	50	10	.61	.54	.47
32F704	5269	B	Body	50	10	1.18	1.04	.90

SWITCHES

Type 9716. Mercury silent switches. 10 amp, 125 v.; 15 amp, 120 v. AC-5 amp, 250 v. Single pole indicating.

Type 1251. 15 amp, AC single pole 120-277 v. Presswitch with feed through terminal.

Type 8801. Flush toggle switches. T-rated—porcelain base—Bakelite handles. 125 v., 10 amp; 250 v., 5 amp.

Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F708	9711	G	Brn. Handle	50	10	.88	.78	.68
32F709	1251	H	Brn. Button	50	10	1.13	1.00	.87
32F710	8801	I	Single Pole	100	10	.70	.62	.54

CHROME-X (STAINLESS STEEL) PLATES

Type 97071. Toggle switch plates.

Type 97101. Convenience outlet plates.

32F711	97071	J	1-Gang	100	10	.34	.30	.26
32F712	97101	K	1-Gang	100	10	.34	.30	.26

CORD-GRIP CAPS

Type 7057. 15 amp, 125 v. Armored cord-grip caps. Bodies are of special impact resisting composition steel covered.

Type 5612. Heavy duty attachment plug with double T-slots. 660 watts, 125 v.

32F705	7057	......	Par. Blades	50	10	.57	.51	.44
32F706	5612	E	Body	100	10	.61	.54	.47
32F707	5266	F	Rubber Cap	50	10	.76	.67	.58

CORDS

Replacement Cord. 6-ft. rubber covered cord with molded plug. Wire ends tinned.

36F860. NET **19c**

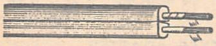
15-Ft. Extension Cord. No. 18 wire with pre-molded rubber plugs. Shpg. wt., 10 oz.

36F859. NET.................................. **59c**

Rubber Cube Extension. All-rubber solderless, 3-way extension cord set. With 9-ft. cord and plug. Shipping wt., 8 ounces.

36F870. NET.................................. **60c**

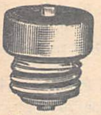
AC LAMP CORD



Two conductor, U.L. approved color coded, cotton wrap, heavy rubber jacket. No. 18 (41x34). Weight per 100 feet, 3 pounds Perfect for low current appliances and electrical accessories.

36F160. Black. **Per Foot**.......................... **3c**
250 feet for..5.88
36F161. Brown. **Per Foot**..........................3c
250 feet for..5.88
36F162. Ivory. **Per Foot**..........................3c
250 feet for..5.88
36F163. White. **Per Foot**..........................3c
250 feet for..5.88

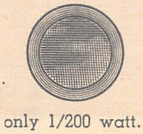
CIRCUIT MINDER



"Circuit Minder"—the permanent fuse replacement—obsoletes all base fuses. To restore service, you simply press a button. Circuit-Minder allows brief overloads. Fits only standard fuse box. U.L. listed in rating of 10, 15, 20, and 30 amperes. C.S.A. approved Shpg. wt., 1 oz.

58F847. 15 amps. .... **.89**
58F848. 20 amps. .... .89
58F849. 30 amps. .... .89

SYLVANIA "PANELESCENT" NITE LITE

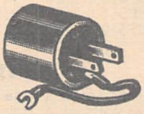


Plugs directly into wall socket to provide a glareless green radiance. No fixtures or wires need be connected to source. Consists of a 3¼" dia. luminescent panel in ivory plastic frame. Consumes only 1/200 watt. 120V., 60 cycles AC.

25F310. NET.... .98 Lots of 10. **NET**.... .75

PLUGS

PLUGS FOR EVERY NEED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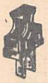
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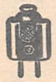
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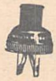
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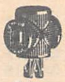
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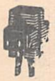
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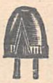

O

Fig. I. Parallel Ground Adapter. Adapts the 3-wire grounding cap for use with 2-wire outlets. Shpg. wt. 2 oz.
36F995. NET.................................. **25c**

Fig. J. Bakelite Plug. Cap size, 1⅛x 1⁷⁄₁₆x⁹⁄₁₆". Brown. Wt., 4 oz.
36F863. NET.................................. **8c**

Fig. K. Fused Plug. Small fuses for each side of line fit snugly in cylindrical receptacles. Blown fuse easily removed. Interchangeable with AC plug. Less 3AG fuses. Wt., 3 oz.
36F875. NET.................................. **45c**

Fig. L. Rubber-handle Plug. Unbreakable soft rubber black plug. Screw terminals.. U.L. Approved. Wt., 2 oz.
36F864. NET.................................. **9c**

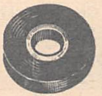
Fig. M. Cube Tap. 3 taps. Brown bakelite. Rated at 15 amps 125 volts; 10 amps 250 volts. U.L. approved 4 oz.
36F862. NET.................................. **15c**

Fig. N. Rubber Cube Tap. New 3-way outlet of one-piece, unbreakable soft rubber. U.L. Approved. 4 ounces.
36F871. NET.................................. **21c**

Fig. O. Molded rubber plug.
36F866. NET.................................. **21c**

Fig. M. 15-Amp Bakelite Triple Tap. Sturdy brown plastic case. Rated 15 amps 125 V, 10 amps 250 V.
36F865. NET.................................. **18c**

TAPES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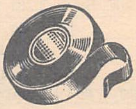
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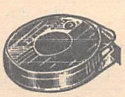

C

Fig. A. ¾" Dutch Brand Friction Tape. Standard width for radio, electrical and home applications. 8 oz., 68 ft.
36F890. NET.................................. **47c**

Fig. A. ¾" Dutch Brand Rubber Tape. High adhesive. 8 oz., 22 ft.
36F891. NET.................................. **49c**
36F897. NET..................................35c

Fig. B. Dutch Brand Plastic Electrical Tape. Plastic tape resists oils, acids, alkalies and corrosive chemicals. Thin (.007"), yet high dielectric strength. Roll is ¾" wide and 44 ft long.,
36F889. NET Each.................................. **98c**

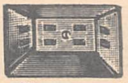
Fig. C. Type 165. Dutch Brand. ¾"x66' plastic elec. tape in individual dispenser.

36F888. NET.................................. **1.47**

Fig. B. ¾" "Scotch" Electrical Tape. With black plastic backing. Has high dielectric strength. Only .007" thick. Resists water oil, acids, etc. Wt., 8 oz.
36F898. 66-ft. roll.
1-9....................**1.45** **10-99**....................**1.20**

Fig. B. ⅜" "Scotch" Elec. Tape. 20 ft.
36F897.
1-9.................... **.34** **10-99**.................... **.29**
36F899. 20-ft. roll.
1-9.................... **.53** **10-99**.................... **.45**

VOCALINE PERMA-PLUG

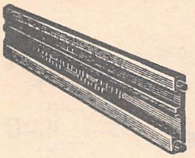


Perma-plug increases the number of available outlets. Two dual pronged plugs fit into any standard outlet doubling the current handling capacity. Safe polarized prongs, UL and CSA approved. 15 Amp. 125 V.A.C. To install, Unscrew old wall plate; plug in, and fasten with one central screw. Wt. 4 oz.

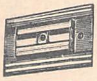
36F1000. Brown. **NET EA.** **59c**
36F1001. Ivory. **NET EA.** .... .59
Lots of 12 of either color. **NET EA.**........ .53

ELECTROSTRIPPING & LUBRICANTS

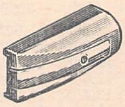
BULLDOG ELECTROSTRIP



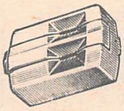
A flexible plastic strip with metal wiring imbedded to provide space for outlets along every inch of surface. A receptacle outlet can be inserted anywhere along its length simply by setting it in a pre-molded ridge and twisting to lock it in place. Specially designed with continuous slits which permit access only of outlet receptacles, which may be removed at any time and reinserted wherever desired. Because of its flexibility, it adapts itself readily to the contours of any building or room, providing unexcelled freedom and convenience in positioning of electrical appliances. It can draw power from any convenient wall outlet box or power can be provided from a separate feed in which can be screwed on at any point. Electrostrip is made of extruded, vinyl plastic with No. 12 AWG wires. It will not support combustion. 3 wire electrostrip is provided with a continuous grounding strip to meet electrical code requirements for equipment grounding. It mounts directly on any surface, conducting or nonconducting, with screws provided. Rated at 20 amps, 125 volts AC. UL approved under file E12775.



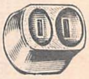
EF3-E3F3



EF2-E3F2



ER1



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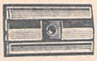
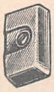
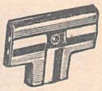


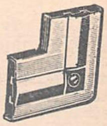
EJ1-E3J1



EC1



ET1-E3T1



EL1-E3L1

TWO WIRE ELECTROSTRIP FITTINGS

Coils

Stk. No.	Type	Length	Wt. Lbs.	NET
58F798	E25	25′	4	7.50
58F799	E50	50′	8	13.00
58F820	E100	100′	16	26.00
58F819	E250	250′	42	60.00

Feed-Ins (20A—125V AC)

EF3. Narrow Feed-in. Used for mounting on std. outlet box—center or end feed. Shpg wt., 5½ lbs.
58F804. NET........1.00

EF2. End Feed-In. Used for accommodating ½″ conduit, armored or non-metallic sheath cable. Shpg. wt., 6½ lbs.
58F803. NET........1.00

Receptacle Plugs 15A—125V AC

ER2. Non-Fusible Receptacle Plug. Use—To connect std. appliances. Shpg. wt., 1 lb.
58F810. NET........ .30

ER1. Fusible Receptacle Plug. For use where protection of appliances is desired. Shpg. wt., 2 lbs.
58F809. NET........ .60

Accessories

EJ1. Coupling. Used to join or continue Electrostrip runs. 2 lbs.
58F807. NET........ .50

EC1. End Cap. Used to terminate Electrostrip runs. ¾ lbs.
58F808. NET........ .10

ET1 Tee. Used to change direction of Electrostrip runs. Shpg. wt., 2 lbs.
58F805. NET........ .80

THREE WIRE ELECTROSTRIP FITTINGS

Coils

Stk. No.	Type	Length	Wt. Lbs.	NET
58F796	E3-25	25′	4	8.10
58F797	E3-50	50′	8	14.20
58F822	E3-100	100′	18	29.00
58F821	E3-250	250′	47	66.00

Feed-Ins (20A—125V AC)

E3F3. Narrow Feed-In. Used for mounting on std. outlet box—center or end feed. Shpg. wt., 6 lbs.
58F812. NET........1.25

E3F4. Split Wire Feed-In. Use—Center feed for two separate 120 volt circuits. Shpg. wt., 6 lbs.
58F813. NET........1.75

E3F2. End Feed-In. Use—Will accommodate ½″ conduit, armored or non-metallic sheath cable. Shpg. wt., 6¾ lbs.
58F811. NET........1.25

15A—125V AC Receptacle Plug

E3J1 Coupling. Used to join or continue Electrostrip runs. 2lbs.
58F816. NET........ .60

T3R2 Non-Fusible Receptacle Plug. To connect std. appliances.
58F817. NET........ .50

EC1 End Cap. Used to terminate Electrostrip runs. Wt., ¾ lb.
58F818. NET........ .10

Accessories

EL1 Elbow. Used to change direction of Electrostrip runs. 2 lbs.
58F806. NET........ .50

E3T1 Tee. Used to change direction of Electrostrip runs. 3 lbs.
58F814. NET........1.00

E3L1 Elbow. Used to change direction of Electrostrip runs. 2 lbs.
58F815. NET........ .75

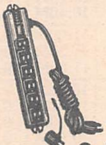
Electrostrip Kits

No. EK4. 4 ft. of strip with 12″ plug in Feed-in which can be located anywhere along the strip. Kit also contains: 3 receptacle plugs; 2 end caps; necessary mounting screws. 15 Amp—125V. AC. Shpg. wt., 6 lbs.
58F800. NET........**1.98**

No. EK15 Kit contains: 15 ft. of strip; 1 feed-in; 2 end caps; 4 receptacle plugs; 2 wire connectors and necessary screws. 20 Amp—125V. AC. Shpg. wt., 15 lbs.
58F801. NET........**5.98**

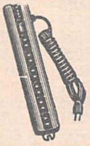
WABER ELECTRONICS—PLUG IN MASTER POWER CONTROLS

THREE WIRE MULTIPLE OUTLET BOX



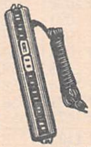
Meets all requirements of UL. Lab. Six foot line cord, asbestos with rubber overlay insulation. Panel mounted fuse, on-off sw. molded plug, 15 amp, 130 Volt. Neon pilot light. FREE adapter supplied, Wt. 1.5 lbs.
30F929. Model 24........**8.50**
30F930. Model 24CB equip. with circuit breaker. 10.50

HEAVY DUTY MULTIPLE OUTLET BOX



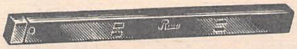
Safety master switch controls all six outlets with a neon pilot light to indicate when power is on. Panel mounted fuse, 10′ cord, replaceable sockets. Neoprene heater cord. Rugged metal case. Wt. 1.9 lbs.
30F931. Model 20........**6.75**
30F932. Model 20CB equipped with circuit breaker. 8.75

HEAVY DUTY MULTIPLE SELECTOR BOX



Same as model 20 except, that it is fitted with 4 sets of sockets and switches in contrasting colors. 4 separate pieces can be controlled individually from a single convenient control center. Wt. 2 lbs.
30F933. Model 30........**6.75**
30F934. Model 30CB equipped with circuit breaker. 8.75

BENCH WIRING SYSTEMS



Easy-to-asemble surface wiring systems Consists of sectionalized 2-wire outlets in plastic ducts. Electrical outlets are provided every 8″. Each system is complete with male and female ends and 16″ back-feed sections through which current is supplied. Easy to install—only a screwdriver is needed. Just fit sections together and mount with screws provided. Back connected feed permits concealed input wiring. Molded brown bakelite. Built-in 60-amp conductors. Outlets rated at 15 amps at 115 v. AC; have spring-type contacts. With hdwe. and instructions. U.L. Approved.

Type 2-W-6. 6 outlet system. Length, 4 ft. Shpg. wt., 4 lbs.
34F690. NET........**5.25**

Type 2-W-10. 10-outlet system. Length, 6 ft., 8 inches.
34F691. NET........**7.28**

Type 2-W-14. 14-outlet system. Length, 9 ft., 4 inches.
34F692. NET........**9.73**

2- and 3-wire systems are available on special order. Write for information.

ELECTROLUBE

No. 1

ELECTROLUBE

A cleaner and lubricant for al electrical contacts. Lubricats and conditions by reducing layers of tarnish. Its electrical resistance becomes lower as temperature is increased.

Stock No.	Type No.	Description	Cont.	NET
31F995	1	For non-arcing	2 oz. bot.	3.85
31F996	2	All types	2 oz. bot.	4.95
31F997	2A	Aerosol Can	6 oz. can	3.85
31F998	2A3	Aerosol Can	6 oz. can	2.75

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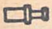
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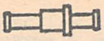
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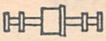
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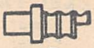
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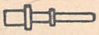
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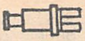
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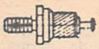
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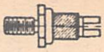
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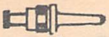
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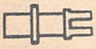
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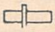
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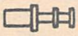
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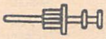
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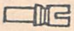
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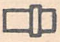
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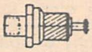
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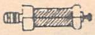
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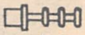
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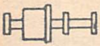
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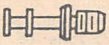
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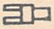
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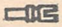
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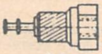
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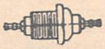
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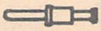
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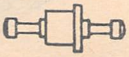
DD

Stk. No.	Type	Fig.	100-999	1M-4999	5M-9999	10M-24999	25M-49999
40F1259	1010-1	J	50.00M	43.20M	39.60M	36.40M	35.20M
40F1283	1011-1	E	18.30M	15.80M	14.50M	13.30M	12.90M
40F1284	1011-2	E	18.30M	15.80M	14.50M	13.30M	12.90M
40F1285	1011-3	E	18.30M	15.80M	14.50M	13.30M	12.90M
40F1289	1012-1	E	20.00M	17.60M	16.10M	14.80M	14.30M
40F1290	1012-2	E	20.00M	17.60M	16.10M	14.80M	14.30M
40F1301	1014-1	E	25.00M	21.30M	19.60M	18.00M	17.40M
40F1354	*1016-5	I	40.00M	29.40M	27.00M	24.80M	24.00M
40F1357	*1017-3	I	40.00M	29.40M	27.00M	24.80M	24.00M
40F1308	1025-2	N	54.00M	45.90M	42.10M	38.60M	37.20M
40F1310	1025-4	N	54.00M	45.90M	42.10M	38.60M	37.20M
40F1360	1026-1	L	11.12M	9.70M	8.90M	8.20M	7.90M
40F1361	1026-2	L	11.12M	9.70M	8.90M	8.20M	7.90M
40F1364	1030-1	CC	33.00M	28.10M	25.80M	23.70M	22.80M
40F1365	1030-2	CC	33.00M	28.10M	25.80M	23.70M	22.80M
40F1316	1031-1	CC	24.40M	20.70M	19.08M	17.40M	16.80M
40F1323	1032-2	CC	15.00M	12.90M	11.90M	10.90M	10.60M
40F1328	1035-3	C	18.40M	15.90M	14.60M	13.40M	13.00M
40F1329	1035-4	C	18.40M	15.90M	14.60M	13.40M	13.00M
40F1330	1035-5	C	18.40M	15.90M	14.60M	13.40M	13.00M
40F1370	1036-2	U	17.70M	15.30M	14.00M	12.90M	12.50M
40F1372	1036-4	U	17.70M	15.30M	14.00M	12.90M	12.50M
40F1375	1040-1	A	17.50M	14.80M	13.60M	12.50M	12.00M
40F1380	1041-1	B	17.50M	14.80M	13.60M	12.50M	12.00M
40F1160	1081-A	C	42.00M	36.60M	33.60M	30.70M	29.60M
40F1161	1081-B	C	42.00M	36.60M	33.60M	30.70M	29.60M
40F1162	1081-C	C	42.00M	36.60M	33.60M	30.70M	29.60M
40F1163	1081-D	C	42.00M	36.60M	33.60M	30.70M	29.60M
40F1267	1089-3	N	15.30M	13.60M	12.10M	11.10M	10.70M
40F1268	1089-4	N	15.30M	13.60M	12.10M	11.10M	10.70M
40F1269	1089-5	N	15.30M	13.60M	12.10M	11.10M	10.70M
40F1171	1143-B	DD	31.00M	26.40M	24.30M	22.20M	21.40M
40F1013	1245-A	A	15.60M	13.50M	12.30M	11.30M	10.90M
40F1014	1245-B	A	15.60M	13.50M	12.30M	11.30M	10.90M
40F1015	1245-C	A	15.60M	13.50M	12.30M	11.30M	10.90M
40F1016	1245-D	A	15.60M	13.50M	12.30M	11.30M	10.90M
40F1009	1457-A	A	10.00M	8.60M	7.90M	7.30M	7.00M
40F1010	1457-B	A	10.00M	8.60M	7.90M	7.30M	7.00M
40F1011	1457-C	A	10.00M	8.60M	7.90M	7.30M	7.00M
40F1012	1457-D	A	10.00M	8.60M	7.90M	7.30M	7.00M
40F1141	1463-A	DD	14.50M	12.50M	11.50M	10.50M	10.10M
40F1142	1463-B	DD	14.50M	12.50M	11.50M	10.50M	10.10M
40F1144	1463-D	DD	14.50M	12.50M	11.50M	10.50M	10.10M
40F1071	1548-A	L	13.40M	11.60M	10.60M	9.80M	9.50M
40F1072	1548-B	L	13.40M	11.60M	10.60M	9.80M	9.50M
40F1073	1548-C	L	13.40M	11.60M	10.60M	9.80M	9.50M
40F1074	1548-D	L	13.40M	11.60M	10.60M	9.80M	9.50M
40F1075	1548-E	L	13.40M	11.60M	10.60M	9.80M	9.50M
40F1019	1558-A	L	9.70M	8.30M	7.60M	7.00M	6.80M
40F1020	1558-B	L	9.70M	8.30M	7.60M	7.00M	6.80M
40F1021	1558-C	L	9.70M	8.30M	7.60M	7.00M	6.80M
40F1022	1558-D	L	9.70M	8.30M	7.60M	7.00M	6.80M
40F1023	1558-E	L	9.70M	8.30M	7.60M	7.00M	6.80M
40F1025	1558-AA	L	9.70M	8.30M	7.60M	7.00M	6.80M
40F1026	1558-BB	L	9.70M	8.30M	7.60M	7.00M	6.80M
40F1027	1558-CC	L	9.70M	8.30M	7.60M	7.00M	6.80M
40F1028	1558-DD	L	9.70M	8.30M	7.60M	7.00M	6.80M
40F1133	1578-B	N	29.00M	24.90M	22.90M	20.90M	20.20M
40F1134	1578-C	N	29.00M	24.90M	22.90M	20.90M	20.20M
40F1135	1578-D	N	29.00M	24.90M	22.90M	20.90M	20.20M
40F1155	1579-B	C	31.00M	26.60M	24.40M	22.30M	21.50M
40F1156	1579-C	C	31.00M	26.60M	24.40M	22.30M	21.50M
40F1157	1579-D	C	31.00M	26.60M	24.40M	22.30M	21.50M
40F1007	1604-B	A	12.50M	10.80M	9.90M	9.10M	8.70M
40F1008	1604-C	A	12.50M	10.80M	9.90M	9.10M	8.70M
40F1165	1620-C	C	72.00M	62.40M	57.30M	52.40M	50.50M
40F1166	1620-D	C	72.00M	62.40M	57.30M	52.40M	50.50M
40F1037	1724-A	L	15.50M	13.40M	12.30M	11.30M	10.90M
40F1038	1724-B	L	15.50M	13.40M	12.30M	11.30M	10.90M
40F1039	1724-C	L	15.50M	13.40M	12.30M	11.30M	10.90M
40F1040	1724-D	L	15.50M	13.40M	12.30M	11.30M	10.90M
40F1041	1724-E	L	15.50M	13.40M	12.30M	11.30M	10.90M
40F1129	1782-C	N	68.00M	58.00M	53.20M	48.80M	47.10M
40F1130	1782-D	N	68.00M	58.00M	53.20M	48.80M	47.10M
40F1126	1783-B	N	43.00M	37.40M	34.30M	31.40M	30.30M
40F1128	1783-D	N	43.00M	37.40M	34.30M	31.40M	30.30M
40F1123	1784-B	N	26.00M	22.50M	20.60M	18.90M	18.20M
40F1124	1784-C	N	26.00M	22.50M	20.60M	18.90M	18.20M
40F1125	1784-D	N	26.00M	22.50M	20.60M	18.90M	18.20M
40F1107	1785-A	W	14.60M	12.60M		10.60M	10.20M
40F1108	1785-B	W	14.60M	12.60M	11.60M	10.60M	10.20M
40F1109	1785-C	W	14.60M	12.60M	11.60M	10.60M	10.20M
40F1110	1785-D	W	14.60M	12.60M	11.60M	10.60M	10.20M
40F1111	1785-E	W	14.60M	12.60M	11.60M	10.60M	10.20M
40F1067	1797-A	A	16.00M	13.80M	12.70M	11.60M	11.20M
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40F1070	1797-D	A	16.00M	13.80M	12.70M	11.60M	11.20M
40F1077	1798-A	L	23.00M	19.90M	18.30M	16.80M	16.20M
40F1078	1798-B	L	23.00M	19.90M	18.30M	16.80M	16.20M
40F1079	1798-C	L	23.00M	19.90M	18.30M	16.80M	16.20M
40F1080	1798-D	L	23.00M	19.90M	18.30M	16.80M	16.20M
40F1244	1898-A	L	65.00M	56.40M	51.70M	47.50M	45.80M
40F1245	1898-B	L	72.00M	62.30M	57.10M	52.50M	50.60M
40F1118	1969-A	W	19.40M	16.80M	15.40M	14.20M	13.70M
40F1119	1969-B	W	19.40M	16.80M	15.40M	14.20M	13.70M
40F1120	1969-C	W	19.40M	16.80M	15.40M	14.20M	13.70M
40F1121	1969-D	W	19.40M	16.80M	15.40M	14.20M	13.70M
40F1122	1969-E	W	19.40M	16.80M	15.40M	14.20M	13.70M
40F1082	1979-B	D	24.00M	21.10M	19.40M	17.70M	17.10M
40F1083	1979-C	D	24.00M	21.10M	19.40M	17.70M	17.10M
40F1084	1979-D	D	24.00M	21.10M	19.40M	17.70M	17.10M
40F1085	1979-E	D	24.00M	21.10M	19.40M	17.70M	17.10M
40F1146	2000-A	U	15.90M	13.70M	12.60M	11.50M	11.10M
40F1147	2000-B	U	15.90M	13.70M	12.60M	11.50M	11.10M
40F1148	2000-C	U	15.90M	13.70M	12.60M	11.50M	11.10M
40F1149	2000-D	U	15.90M	13.70M	12.60M	11.50M	11.10M
40F1151	2004-B	C	15.90M	13.70M	12.60M	11.50M	11.10M
40F1152	2004-C	C	15.90M	13.70M	12.60M	11.50M	11.10M
40F1153	2004-D	C	15.90M	13.70M	12.60M	11.50M	11.10M
40F1063	2027-A	A	14.60M	12.60M	11.60M	10.60M	10.20M
40F1064	2027-B	A	14.60M	12.60M	11.60M	10.60M	10.20M
40F1066	2027-D	A	14.60M	12.60M	11.60M	10.60M	10.20M
40F1065	2027-C	A	14.60M	12.60M	11.60M	10.60M	10.20M
40F1031	2034-A	L	17.40M	15.00M	13.70M	12.60M	12.10M
40F1032	2034-B	L	17.40M	15.00M	13.70M	12.60M	12.10M
40F1033	2034-C	L	17.40M	15.00M	13.70M	12.60M	12.10M
40F1034	2034-D	L	17.40M	15.00M	13.70M	12.60M	12.10M
40F1035	2034-E	L	17.40M	15.00M	13.70M	12.60M	12.10M
40F1036	2034-F	L	17.40M	15.00M	13.70M	12.60M	12.10M
40F1204	2040-A	C	17.90M	15.40M	14.10M	13.00M	12.60M
40F1205	2040-B	C	17.90M	15.40M	14.10M	13.00M	12.60M
40F1206	2040-C	C	17.90M	15.40M	14.10M	13.00M	12.60M
40F1207	2040-D	C	17.90M	15.40M	14.10M	13.00M	12.60M
40F1208	2040-E	C	17.90M	15.40M	14.10M	13.00M	12.60M
40F1180	2041-A	A	10.40M	9.00M	8.20M	7.50M	7.30M
40F1181	2041-B	A	10.40M	9.00M	8.20M	7.50M	7.30M
40F1182	2041-C	A	10.40M	9.80M	8.20M	7.50M	7.30M
40F1183	2041-D	A	10.40M	9.80M	8.20M	7.50M	7.30M
40F1184	2041-E	A	10.40M	9.00M	8.20M	7.50M	7.30M
40F1186	2042-A	B	11.30M	9.80M	9.00M	8.20M	8.00M
40F1187	2042-B	B	11.30M	9.80M	9.00M	8.20M	8.00M
40F1189	2042-D	B	11.30M	9.80M	9.00M	8.20M	8.00M
40F1192	2043-A	L	10.80M	9.40M	8.60M	7.90M	7.60M
40F1193	2043-B	L	10.80M	9.40M	8.60M	7.90M	7.60M
40F1194	2043-C	L	10.80M	9.40M	8.60M	7.90M	7.60M
40F1195	2043-D	L	10.80M	9.40M	8.60M	7.90M	7.60M
40F1198	2044-A	U	12.20M	10.50M	9.60M	8.80M	8.50M
40F1199	2044-B	U	12.20M	10.50M	9.60M	8.80M	8.50M
40F1200	2044-C	U	12.20M	10.50M	9.60M	8.80M	8.50M
40F1201	2044-D	U	12.20M	10.50M	9.60M	8.80M	8.50M
40F1203	2044-F	U	12.20M	10.50M	9.60M	8.80M	8.50M
40F1212	2051-A	V	35.00M	30.10M	27.60M	25.30M	24.40M
40F1213	2051-B	V	35.00M	30.10M	27.60M	25.30M	24.40M
40F1048	2080-A	T	14.80M	12.70M	11.70M	10.70M	10.30M
40F1049	2080-B	T	14.80M	12.70M	11.70M	10.70M	10.30M
40F1050	2080-C	T	14.80M	12.70M	11.70M	10.70M	10.30M
40F1051	2080-D	T	14.80M	12.70M	11.70M	10.70M	10.30M
40F1137	2081-A	M	22.00M	19.10M	17.50M	16.00M	15.50M
40F1138	2081-B	M	22.00M	19.10M	17.50M	16.00M	15.50M
40F1140	2081-D	M	22.00M	19.10M	17.50M	16.00M	15.50M
40F1053	2084-A	T	30.00M	25.90M	23.80M	21.80M	21.00M
40F1054	2084-B	T	30.00M	25.90M	23.80M	21.80M	21.00M
40F1055	2084-C	T	30.00M	25.90M	23.80M	21.80M	21.00M
40F1056	2084-D	T	30.00M	25.90M	23.80M	21.80M	21.00M
40F1000	2085-AA	A	9.30M	8.10M	7.40M	6.80M	6.50M
40F1001	2085-A	A	9.30M	8.10M	7.40M	6.80M	6.50M
40F1002	2085-B	B	9.30M	8.10M	7.40M	6.80M	6.50M

Note: Silver finish std., except *copper plate and electro tin plate. Other finishes available upon request.

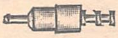
For Technical Data on All Cambion Products Write for Free Cambion Catalog. Stock No. 40F000

SOLDER TERMINALS

TERMINALS (Cont.)

Stk. No.	Type	Fig.	100-999	1M-4999	5M-9999	10M-24999	25M-49999
40F1114	2086-B	F	26.00M	22.80M	20.90M	19.10M	18.40M
40F1115	2086-C	F	26.00M	22.80M	20.90M	19.10M	18.40M
40F1116	2086-D	F	26.00M	22.80M	20.90M	19.10M	18.40M
40F1099	2089-AA	N	18.90M	16.20M	14.90M	13.70M	13.20M
40F1100	2089-A	N	18.90M	16.20M	14.90M	13.70M	13.20M
40F1101	2089-B	N	18.90M	16.20M	14.90M	13.70M	13.20M
40F1060	2100-A	A	14.00M	12.00M	11.00M	10.10M	9.80M
40F1061	2100-B	A	14.00M	12.00M	11.00M	10.10M	9.80M
40F1044	2110-C	L	54.00M	46.60M	42.80M	39.20M	37.80M
40F1222	2113-C	L	30.00M	25.40M	23.30M	21.30M	20.60M
40F1223	2113-D	L	30.00M	25.40M	23.30M	21.30M	20.60M
40F1224	2113-E	L	30.00M	25.40M	23.30M	21.30M	20.60M
40F1227	2114-B	L	40.00M	32.50M	29.80M	27.30M	26.30M
40F1228	2114-C	L	40.00M	32.50M	29.80M	27.30M	26.30M
40F1233	2115-B	B	50.00M	42.40M	38.90M	35.60M	34.30M
40F1234	2115-C	B	50.00M	42.40M	38.90M	35.60M	34.30M
40F1235	2115-D	B	50.00M	42.40M	38.90M	35.60M	34.30M
40F1241	2132-D	L	60.00M	49.60M	45.60M	41.70M	40.30M
40F1177	2141-B	B	49.00M	42.40M	38.70M	35.50M	34.40M
40F1088	2187-A	X	16.60M	14.30M	13.10M	12.10M	11.60M
40F1089	2187-B	X	16.60M	14.30M	13.10M	12.10M	11.60M
40F1225	2267-1	....	30.00M	25.40M	23.20M	21.30M	20.60M
40F1252	2352-2	P	14.50M	11.90M	10.90M	10.50M	10.10M
40F1247	2380-1	....	61.00M	52.70M	48.40M	44.50M	42.90M
40F1248	2381-1	....	60.00M	49.40M	45.40M	43.60M	42.10M
40F1406	2750-1	K	15.20M	13.20M	12.10M	11.10M	10.80M
40F1407	2750-2	K	15.20M	13.20M	12.10M	11.10M	10.80M

Stk. No.	Type	Fig.	1-9	10-49	50-99	100-249	250-499	500-999	1000-2499	2500-4999
40F1821	1581-1	G	.19	.18	.17	.16	.15	.14	.13	.12
40F1822	1581-3	G	.19	.18	.17	.16	.15	.14	.13	.12
40F1828	1719-1	G	.27	.25	.24	.22	.21	.19	.18	.17
40F1829	1719-3	G	.27	.25	.24	.22	.21	.19	.18	.17
40F1832	1771-A	BB	.45	.42	.40	.37	.34	.31	.29	.27
40F1830	1795-A	BB	.33	.31	.29	.26	.24	.22	.21	.20
40F1831	1795-B	BB	.33	.31	.29	.26	.24	.22	.21	.20
40F1781	1942-F4	AA	.21	.20	.19	.18	.17	.16	.15	.14
40F1782	1942-F6	AA	.21	.20	.19	.18	.17	.16	.15	.14
40F1773	1942-X	G	.21	.20	.19	.18	.17	.16	.15	.14
40F1774	1942-X3	G	.21	.20	.19	.18	.17	.16	.15	.14
40F1834	1945-1	G	.30	.29	.26	.24	.23	.21	.20	.19
40F1835	1945-2	G	.30	.29	.26	.24	.23	.21	.20	.19
40F1841	1947-1	AA	.30	.29	.26	.24	.23	.21	.20	.19
40F1842	1947-2	AA	.30	.29	.26	.24	.23	.21	.20	.19
40F1737	1980-XA156	G	.21	.20	.19	.18	.17	.16	.15	.14
40F1734	1980-XA250	G	.21	.20	.19	.18	.17	.16	.15	.14
40F1732	1980-XB093	AA	.21	.20	.19	.18	.17	.16	.15	.14
40F1738	1980-XB156	G	.21	.20	.19	.18	.17	.16	.15	.14
40F1735	1980-XB250	G	.21	.20	.19	.18	.17	.16	.15	.14
40F1736	1980-XC250	G	.21	.20	.19	.18	.17	.16	.15	.14
40F1740	1980-YA062	R	.21	.20	.19	.18	.17	.16	.15	.14
40F1749	1980-YA125	R	.21	.20	.19	.18	.17	.16	.15	.14
40F1805	1990-1	BB	.45	.42	.40	.37	.34	.31	.29	.27
40F1792	1995-A	G	.21	.20	.19	.18	.17	.16	.15	.14
40F1793	1995-B	G	.21	.20	.19	.18	.17	.16	.15	.14
40F1794	1995-C	G	.21	.20	.19	.18	.17	.16	.15	.14
40F1762	2045-F4	AA	.21	.20	.19	.18	.17	.16	.15	.14
40F1763	2045-F6	AA	.21	.20	.19	.18	.17	.16	.15	.14
40F1755	2045-X	G	.21	.20	.19	.18	.17	.16	.15	.14
40F1756	2045-X3	G	.21	.20	.19	.18	.17	.16	.15	.14
40F1758	2045-YO93	AA	.21	.20	.19	.18	.17	.16	.15	.14
40F1730	3482-1	S	.21	.20	.19	.18	.17	.16	.15	.14
40F1720	3480-1	S	.21	.20	.19	.18	.17	.16	.15	.14
40F1813	2167-1	....	.65	.61	.56	.52	.41	......	......	......
40F1814	2167-2	....	.72	.68	.63	.58	.54	......	......	......
40F1803	3485-1	S	.27	.25	.24	.21	.21	.19	.18	.17
40F1804	3485-2	S	.27	.25	.24	.21	.21	.19	.18	.17
40F1796	3483-1	S	.27	.25	.24	.21	.21	.19	.18	.17
40F1797	3483-2	....	.27	.25	.19	.17	.17	.19	.18	.17
40F1700	2255-1	S	.21	.20	.19	.17	.17	.16	.15	.14
40F1701	2255-2	S	.21	.20	.19	.17	.17	.16	.15	.14
40F1702	2255-3	....	.21	.20	.19	.17	.17	.16	.15	.14
40F1703	2256-1	....	.21	.20	.19	.18	.17	.16	.15	.14
40F1708	2370-1	....	.27	.25	.23	.22	.20	.19	.18	.17
40F1710	2370-3	....	.26	.24	.23	.21	.20	.18	.17	.16
40F1784	2382-2	H	.33	.31	.29	.26	.24	.22	.21	.20
40F1790	2384-1	H	.33	.31	.29	.26	.24	.22	.21	.20
40F1791	2384-2	H	.27	.25	.24	.22	.21	.19	.18	.17
40F1764	2430-1	H	.27	.25	.24	.22	.21	.19	.18	.17
40F1770	2431-5	H	.27	.25	.24	.22	.21	.19	.18	.17
40F1771	2432-1	H	.30	.29	.26	.24	.23	.21	.20	.19
40F1812	4263-1	....	.21	.20	.18	.16	.15	.146	.142	.138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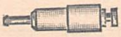
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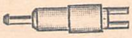
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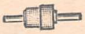
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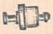
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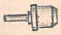
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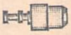
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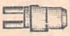
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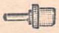
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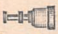

K

TEFLON PRESS MOUNT INSULATED TERMINALS

Stock No.	Type	Fig.	1-9	10-49	50-99	100-249	250-499
40F1847	4025-1	K	.12	.11	.10	.09	.08
40F1849	4025-2	K	.12	.11	.10	.09	.08
40F1851	4025-3	K	.12	.11	.10	.09	.08
40F1853	4025-4	K	.12	.11	.10	.09	.08
40F1848	4026-1	K	.13	.12	.11	.10	.09
40F1850	4026-2	K	.13	.12	.11	.10	.09
40F1852	4026-3	K	.13	.12	.11	.10	.09
40F1854	4026-4	K	.13	.12	.11	.10	.09
40F1865	4027-1	K	.13	.12	.11	.10	.09
40F1855	4027-2	K	.13	.12	.11	.10	.09
40F1866	4027-3	K	.13	.12	.11	.10	.09
40F1867	4027-4	K	.13	.12	.11	.10	.09
40F1868	4028-1	K	.13	.12	.11	.10	.09
40F1856	4028-2	K	.13	.12	.11	.10	.09
40F1869	4028-3	K	.13	.12	.11	.10	.09
40F1870	4028-4	K	.13	.12	.11	.10	.09
40F1871	4029-1	J	.11	.10	.09	.08	.08
40F1872	4029-2	J	.11	.10	.09	.08	.08
40F1873	4029-3	J	.11	.10	.09	.08	.08
40F1874	4029-4	J	.11	.10	.09	.08	.08
40F1875	4030-1	J	.11	.10	.09	.08	.08
40F1876	4030-2	J	.11	.10	.09	.08	.08
40F1877	4030-3	J	.11	.10	.09	.08	.08
40F1878	4030-4	J	.11	.10	.09	.08	.08
40F1879	4031-1	J	.13	.12	.11	.10	.09
40F1880	4031-2	J	.13	.12	.11	.10	.09
40F1881	4031-3	J	.13	.12	.11	.10	.09
40F1882	4031-4	J	.13	.12	.11	.10	.09
40F1883	4033-1	K	.13	.12	.11	.10	.09
40F1884	4033-2	K	.13	.12	.11	.10	.09
40F1885	4033-3	K	.13	.12	.11	.10	.09
40F1886	4033-4	K	.13	.12	.11	.10	.09
40F1887	4034-1	K	.13	.12	.11	.10	.09
40F1888	4034-2	K	.13	.12	.11	.10	.09
40F1889	4034-3	K	.13	.12	.11	.10	.09
40F1890	4034-4	K	.13	.12	.11	.10	.09
40F1891	4037-1	J	.11	.10	.09	.08	.08
40F1892	4038-1	K	.13	.12	.11	.10	.09
40F1893	4040-1	J	.13	.12	.11	.10	.09
40F1894	4041-1	K	.13	.12	.11	.10	.09
40F1895	4077-1	G	.14	.13	.12	.11	.10
40F1896	4078-1	G	.14	.13	.12	.11	.10
40F1897	4079-1	G	.16	.14	.13	.12	.11
40F1898	4080-1	G	.17	.16	.14	.13	.12
40F1899	4081-1	G	.21	.20	.18	.16	.15
40F1900	4084-1	G	.16	.14	.13	.12	.11
40F1901	4085-1	G	.17	.16	.14	.13	.12
40F1902	4086-1	G	.21	.20	.18	.16	.15
40F1903	4087-1	G	.13	.12	.11	.10	.09
40F1904	4090-1	H	.17	.16	.14	.13	.12
40F1905	4091-1	H	.17	.16	.14	.13	.12
40F1906	4092-1	H	.17	.16	.14	.13	.12
40F1907	4093-1	H	.26	.24	.22	.21	.19
40F1908	4094-1	H	.17	.16	.14	.13	.12
40F1909	4095-1	H	.17	.16	.14	.13	.12
40F1910	4096-1	H	.21	.20	.18	.16	.15
40F1911	4097-1	H	.26	.24	.22	.21	.19
40F1912	4098-1	G	.13	.12	.11	.10	.09
40F1913	4099-1	G	.14	.13	.12	.11	.10
40F1924	4100-1	G	.16	.14	.13	.12	.11
40F1925	4101-1	G	.17	.16	.14	.13	.12
40F1926	4102-1	G	.21	.20	.18	.16	.15
40F1927	4103-1	F	.11	.10	.09	.08	.08
40F1928	4104-1	G	.14	.13	.12	.11	.10
40F1929	4105-1	G	.14	.13	.12	.11	.10
40F1930	4106-1	G	.14	.13	.12	.11	.10
40F1931	4107-1	H	.17	.16	.14	.13	.12
40F1932	4108-1	H	.17	.16	.14	.13	.12
40F1933	4109-1	F	.13	.12	.11	.10	.09
40F1934	4110-1	G	.13	.12	.11	.10	.09
40F1935	4111-1	G	.13	.12	.11	.10	.09
40F1810	4114-1	G	.17	.16	.14	.13	.12
40F1936	4175-1	D	.13	.12	.11	.10	.09
40F1937	4176-1	D	.13	.12	.11	.10	.09
40F1938	4176-2	D	.13	.12	.11	.10	.09
40F1939	4176-3	D	.13	.12	.11	.10	.09
40F1940	4176-4	D	.13	.12	.11	.10	.09
40F1941	4177-1	D	.13	.12	.11	.10	.09
40F1942	4177-2	D	.13	.12	.11	.10	.09
40F1943	4177-3	D	.13	.12	.11	.10	.09
40F1944	4179-1	E	.14	.13	.12	.11	.10
40F1945	4181-1	A	.13	.12	.11	.10	.09
40F1946	4182-1	A	.13	.12	.11	.10	.09
40F1947	4182-2	A	.13	.12	.11	.10	.09
40F1948	4182-3	A	.13	.12	.11	.10	.09
40F1949	4183-1	A	.13	.12	.11	.10	.09
40F1950	4183-2	A	.13	.12	.11	.10	.09

(Continued on next page.)

CAMBION® ELECTRICAL COMPONENTS

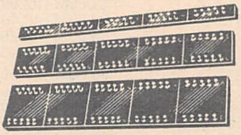
CAMBRIDGE THERMIONIC CORP.

TEFLON PRESS MOUNT INSULATED TERMINALS (Cont.)

Stk. No.	Type	Fig.	1-9	10-49	50-99	100-249	250-499
40F1951	4183-3	A	.13	.12	.11	.10	.09
40F1952	4186-1	A	.13	.12	.11	.10	.09
40F1953	4186-2	A	.13	.13	.11	.10	.09
40F1954	4186-3	A	.13	.12	.11	.10	.09
40F1955	4187-1	E	.14	.12	.12	.11	.10
40F1956	4228-1	D	.13	.12	.11	.10	.09
40F1957	4230-1	B	.14	.13	.12	.11	.10
40F1958	4231-1	B	.21	.20	.18	.16	.15
40F1959	4232-1	B	.21	.20	.18	.16	.15
40F1960	4233-1	B	.24	.22	.20	.18	.17
40F1961	4234-1	B	.16	.14	.13	.12	.11
40F1962	4235-1	B	.21	.20	.18	.16	.15
40F1963	4236-1	B	.21	.20	.18	.16	.15
40F1964	4238-1	B	.14	.13	.12	.11	.10
40F1965	4241-1	A	.21	.20	.18	.16	.15
40F1966	4242-1	A	.21	.20	.18	.16	.15
40F1967	4243-1	A	.21	.20	.18	.16	.15
40F1968	4248-1	A	.13	.12	.11	.10	.09
40F1969	4251-1	C	.21	.20	.18	.16	.15
40F1970	4252-1	C	.21	.20	.18	.16	.15
40F1971	4253-1	C	.30	.28	.25	.23	.22
40F1972	4254-1	C	.21	.20	.18	.16	.15
40F1973	4255-1	C	.30	.28	.25	.23	.22
40F1974	4256-1	C	.30	.28	.25	.23	.22
40F1975	4257-1	C	.21	.20	.18	.16	.15
40F1976	4258-1	C	.21	.20	.18	.16	.15
40F1977	4259-1	C	.30	.28	.25	.23	.22
40F1978	4260-1	C	.21	.20	.18	.16	.15
40F1979	4261-1	C	.30	.28	.25	.23	.22
40F1980	4262-1	C	.30	.28	.25	.23	.22

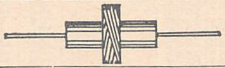
TERMINAL BOARDS

Standard All-Set (13 & 14 prefixes) are scribed into 5 sections. Each drilled for 14 lugs w/10 mtd. except *, which has 7 lugs w/5 mtd. Material used: cotton-fabric phenolic, Mil. Type FBE, Mil. Spec. MIL-P-15035B; epoxy-glass cloth, GEE, MIL-P-18177B; nylon-fabric phenolic, NGP, MIL-P-15047B; paper-base phenolic, PBE-P, MIL-P-3115B. Ceramic type. I (19 & 20 prefixes) Consist of 3 assemblies, each having 8 terminals spaced for component mtg. w/½, 1, 2 watt resistor body sizes. II (23 prefixes) Have terminals in single row. Ceramic is per MIL-1-10.



Stk. No.	Type	1-9	10-49	50-99	100-249
40F2040	1310-15	1.90	1.76	1.64	1.56
40F2043	1313-15	1.90	1.76	1.64	1.56
40F2000	1401-15*	.89	.83	.77	.73
40F2001	1401-45*	.89	.83	.77	.73
40F2006	1402-15	2.00	1.87	1.74	1.66
40F2007	1402-45	2.00	1.87	1.74	1.66
40F2011	1402-65	2.50	2.30	2.20	2.10
40F2016	1403-35	2.70	2.50	2.30	2.20
40F2017	1403-65	2.70	2.50	2.30	2.20
40F2012	1403-15	2.10	1.96	1.80	1.73
40F2013	1403-45	2.10	1.96	1.80	1.73
40F2018	1404-15	2.20	2.00	1.87	1.78
40F2019	1404-45	2.20	2.00	1.87	1.78
40F2024	1405-45	1.84	1.72	1.58	1.50
40F2028	1406-15	1.97	1.84	1.71	1.61
40F2029	1406-45	1.97	1.84	1.71	1.61
40F2002	1401-25	1.51	1.40	1.30	1.24
40F2009	1402-55	4.20	3.80	3.60	3.40
40F2014	1403-25	3.70	3.40	3.20	3.00
40F2015	1403-55	4.40	4.10	3.80	3.60
40F2030	1406-25	3.20	2.90	2.70	2.60
40F2027	1405-35	2.00	1.88	1.74	1.66
40F2033	1406-65	2.30	2.20	2.00	1.90
40F2034	1986-1	.74	.67	.61	.58
40F2039	2303-3*	.64	.56	.49	.46
40F2035	2030-1*	.74	.67	.61	.58
40F2036	2036-1*	.74	.67	.61	.58
40F2038	2303-2	.60	.50	.45	.43

RF CHOKES



Stock No.	Type	Ind. uH	1-9	10-49	50-99	100-249	250-499
40F5016	2082-1	6.8	.43	.38	.33	.31	.30
40F5017	2082-2	10	.43	.38	.33	.31	.30
40F5022	2082-7	68	.45	.39	.34	.32	.31
40F5023	2082-8	100	.45	.39	.34	.32	.31
40F5024	2082-9	150	.45	.39	.34	.32	.31
40F5029	2082-14	1000	.52	.44	.38	.36	.35

VARIABLE CAPACITORS

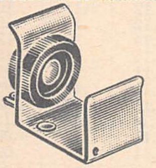
Stk. No.	Type	Cap. Rng. uufd.	1-9	10-49	50-99	100-249
40F5100	CST-6	0.5-4.5	.96	.84	.74	.69
40F5101	CST-50	2-12	1.07	.92	.81	.77
40F5102	CS6-6	1-8	1.01	.88	.78	.73
40F5103	CS6-50	3-25	1.14	.99	.87	.81
40F5104	CST-50D	1.5-10	1.20	1.05	.91	.86
40F5105	CSM-150	1.5-5	1.20	1.05	.91	.86
40F5106	CSM-60	.75-3	1.20	1.05	.91	.86
40F5107	3252-27-2	150	.58	.53	.48	.43
40F5109	3252-35-2	680	.58	.53	.48	.43
40F5110	3252-37-2	1000	.58	.53	.48	.43
40F5116	2123-8	1000	.74	.66	.57	.53

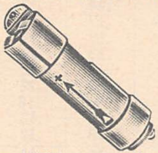
KITS

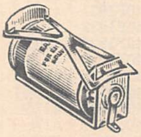
Coil Kit. Type 2061. Ten 2060 coils. Ranges from 2 uH to 800 uH.
40F5065. NET......11.95

RF Choke Kit. Type 2083. Fourteen 2082 RF chokes.
40F5066. NET...... 5.95

BATTERY HOLDERS



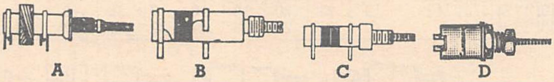




Available for all mercury ("C" size) anl zinc nickel plated ("D" size) batteries. Spring holder operation. Body material Phosphor Bronze. *For "D" size only with steel body.

Stk. No.	Type	1-9	10-49	50-99	100-249
40F2128	2233-2	.35	.31	.28	.26
40F2129	2234-2	.44	.39	.35	.32
40F2130	2324-2	.92	.81	.72	.66
40F2131	2475-2	.74	.65	.59	.54
40F2132	2477-2	.83	.69	.65	.60
40F2683	2570-2	1.01	.91	.80	.74
40F2133	2870-2	1.08	.98	.86	.79
40F2134	2880-2	.98	.89	.78	.72
40F2135	2890-2	1.08	.98	.86	.79
40F2136	2895-2*	.81	.72	.64	.59

VARIABLE COILS



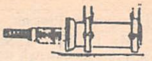
Stock No.	Type	Ind. Range uH	Fig.	1-9	10-49	50-99	100-249	250-499
40F5043	LSM-1 Mc	725-1250	C	1.12	.99	.86	.81	.78
40F5044	LSM-3 Mc	70-110	C	1.10	.96	.94	.79	.76
40F5045	LSM-5 Mc	45-75	C	1.07	.91	.81	.76	.72
40F5046	LSM-10Mc	2-4	C	1.03	.89	.79	.74	.70
40F5047	LSM-30Mc	.28-.35	C	1.00	.86	.76	.70	.68
40F5048	LSM-60Mc	.09-.1	C	.93	.82	.71	.67	.65
40F5049	LS3-1 Mc	250-650	B	1.12	.99	.86	.81	.78
40F5050	LS3-3Mc	45-95	B	1.10	.96	.84	.79	.76
40F5051	LS3-5 Mc	30-70	B	1.07	.91	.81	.76	.72
40F5052	LS3-10Mc	5-10	B	1.03	.89	.79	.74	.70
40F5053	LS3-30Mc	.45-.7	B	1.00	.86	.76	.70	.68
40F5054	LS3-60Mc	.098-.1	B	.93	.82	.71	.67	.65
40F4979	1505-2	.9-1.75	D	2.30	2.00	1.80	1.69	1.62
40F4980	1505-3	1.7-3.5	D	2.30	2.00	1.80	1.69	1.62
40F4981	1505-4	3.2-8.3	D	2.30	2.00	1.80	1.69	1.62
40F4982	1505-5	7.8-16	D	2.50	2.20	1.95	1.82	1.75
40F4983	1505-6	14.5-33	D	2.50	2.20	1.95	1.82	1.75
40F4984	1505-7	30-73	D	2.20	1.96	1.73	1.62	1.57
40F4987	1505-10	400-1 mH	D	2.20	1.96	1.73	1.62	1.57
49F4988	1506-1	1-2.2 mH	D	2.75	2.40	2.10	1.98	1.82
40F4989	1506-2	2-4.7 mH	D	2.75	2.40	2.10	1.98	1.82
40F4990	1506-3	4.5-11 mH	D	3.17	2.80	2.40	2.30	2.10
40F4991	1506-4	9-22 mH	D	3.17	2.80	2.40	2.30	2.10
40F4995	1507-3	.27-.55	D	2.20	2.00	1.74	1.63	1.57
40F4996	1507-4	.5-1.1	D	2.20	2.00	1.74	1.63	1.57
40F4997	1507-5	.9-2.0	D	2.20	2.00	1.74	1.63	1.57
40F5055	2060-1	2.0-3.7	A	1.06	.89	.79	.74	.70
40F5056	2060-2	3.5-7.0	A	1.06	.89	.79	.74	.70
40F5057	2060-3	6.5-10.6	A	1.16	.99	.86	.81	.77
40F5058	2060-4	10-18	A	1.16	.99	.86	.81	.77
40F5059	2060-5	16-30	A	1.23	1.06	.92	.85	.82
40F5060	2060-6	28-63	A	1.32	1.14	1.01	.93	.89
40F5061	2060-7	61-122	A	1.42	1.21	1.07	1.00	.93
40F5062	2060-8	120-243	A	1.51	1.30	1.14	1.07	1.02
40F5063	2060-9	238-450	A	1.59	1.35	1.19	1.11	1.05
40F5064	2060-10	440-800	A	1.64	1.41	1.24	1.16	1.10

SPRING LOADED DIODE CLIPS

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
40F2268	2146-1	.24	.22	.20	.19	.18
40F2270	2247-2	.24	.22	.20	.19	.18
40F2271	2247-3	.24	.22	.20	.19	.18
40F2272	2247-4	.24	.22	.20	.19	.18
40F2274	2329-1	.35	.32	.30	.28	.24
40F2280	2339-1	.43	.39	.35	.33	.31
40F2283	2340-3	.43	.39	.35	.33	.31
40F2552	2422-1	.53	.49	.46	.43	.39

COIL FORMS

CAMBION®
CAMBRIDGE THERMIONIC CORP.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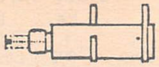
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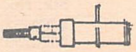
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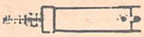
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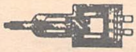
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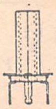
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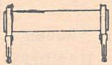
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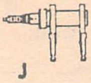
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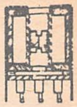

K

Stk. No.	Type	Fig.	1-49	50-249	250-499	500-999	1000-2499
40F3572	2270-1	H	.74	.57	.48	.45	......
40F3573	2270-2	H					
40F3574	2270-3	H					
40F3575	2270-4	H					
40F3578	2271-2	H	.74	.57	.48	.45	......
40F3579	2271-3	H					
40F3580	2271-4	H					
40F3753	2525-3	J	.96	.77	.67	.61	......
40F3757	2530-2	J	1.09	.87	.77	.70	
40F3759	2530-4	J	1.09	.87	.77	.70	
40F3861	2585-11	....	2.00	1.73	1.57	1.50	
40F3654	LS3/NS	B	.41	.33	.29	.26	.25
40F3655	LS3/A	B	.46	.38	.34	.31	.30
40F3656	LS3/B	B					
40F3657	LS3/C	B					
40F3658	LS3/N	B					
40F3660	LS4/NS	D	.63	.51	.44	.42	.40
40F3662	LS4/L	D	.68	.56	.49	.47	.45
40F3663	LS4/M	D	.68	.56	.49	.47	.45
40F3148	LS5/NS	A	.59	.49	.42	.38	.35
40F3149	LS5/A	A	.64	.54	.47	.43	.40
40F3150	LS5/B	A	.64	.54	.47	.43	.40
40F3394	LS5/2C4L/B	A	.84	.70	.63	.59	.54
40F3130	LS6/NS	A	.54	.41	.35	.32	.30
40F3131	LS6/D	A	.59	.46	.40	.37	.35
40F3132	LS6/E	A					
40F3134	LS6/O	A					
40F3135	LS6/X2018B	A					
40F3321	LS6/2C4L/D	A	.75	.60	.54	.51	.47
40F3322	LS6/2C4L/E	A					
40F3324	LS6/2C4L/O	A					
40F3327	LS6/2C2L/D	A					
40F3166	LS6/CT2L/O	A	.67	.53	.47	.44	.41
40F3167	LS7/K	A	.69	.58	.50	.46	.44
40F3169	LS7/M	A	.69	.58	.50	.46	.44
40F3170	LS7/Q	A	.69	.58	.50	.46	.44
40F3512	LS9-2R	F	.90	.74	.68	.64	......
40F3513	LS9-2S	F					
40F3515	LS9-2U	F					
40F3520	LS9-4R	F					
40F3521	LS9-4S	F					
40F3523	LS9-4U	F					
40F3525	LS10-2E	F	1.03	.85	.78	.74	......
40F3526	LS10-2F	F					
40F3529	LS10-3E	F					
40F3532	LS10-4D	F					
40F3533	LS10-4E	F					
40F3534	LS10-4F	F					
40F3535	LS10-4O	F					
40F3536	LS11-2V	F	.86	.70	.65	.62	......
40F3537	LS11-2W	F					
40F3544	LS11-4V	F					
40F3545	LS11-4W	F					
40F3547	LS11-4Y	F					
40F3557	LS12-2B	K	.76	.63	.58	.54	......
40F3558	LS12-2C	K					
40F3563	LS12-4B	K					
40F3565	LS12-4D	K					
40F3566	LS12-5B	K					
40F3569	LS12-6B	K					
40F3570	LS12-6C	K					
40F3571	LS12-6D	K					
40F3548	LS14-4W	....	2.50	1.99	1.82	1.69	......
40F3549	LS14-4X	....					
40F3553	LS14-5X	C					
40F3642	LSM/NS	C	.41	.33	.29	.26	.25
40F3643	LSM/D	C	.46	.38	.34	.31	.30
40F3644	LSM/E	C					
40F3646	LSM/O	C					
40F3647	LSM/2018B	A					
40F3106	LST/NS	A	.49	.39	.33	.30	.28
40F3107	LST/G	A	.54	.44	.38	.35	.33
40F3108	LST/H	A					
40F3110	LST/P	A					
40F3254	LSTL/2C2L/NS	A	.63	.51	.45	.42	.38
40F3113	LSTL/G	A	.54	.44	.38	.35	.33
40F3114	LSTL/H	A					
40F3116	LSTL/P	A					
40F3117	LSTL/2018A	A					
40F3249	LSTL/2C4L/G	A	.68	.56	.50	.47	.43
40F3252	LSTL/2C4L/P	A	.68	.56	.50	.47	.43
40F3142	PLS5/NS	A	.59	.49	.42	.38	.35
40F3143	PLS5/A	A	.64	.54	.47	.43	.40
40F3144	PLS5/B	A					
40F3145	PLS5/C	A					
40F3146	PLS5/N	A					
40F3147	PLS5/X2018C	A	.64	.54	.47	.43	.40
40F3374	PLS5/2C2L/NS	A	.79	.65	.58	.54	.49
40F3376	PLS5/2C2L/B	A	.84	.70	.63	.59	.54
40F3378	PLS5/2C2L/N	A	.84	.70	.63	.59	.54
40F3368	PLS5/2C4L/NS	A	.79	.65	.58	.54	.49
40F3370	PLS5/2C4L/B	A	.84	.70	.63	.59	.54
40F3372	PLS5/2C4L/N	A	.84	.70	.63	.59	.54
40F3124	PLS6/NS	A	.54	.41	.35	.32	.30
40F3125	PLS6/D	A	.59	.46	.40	.37	.35
40F3126	PLS6/E	A					
40F3128	PLS6/O	A					
40F3129	PLS6/X2018B	A					
40F3302	PLS6/2C2L/NS	A	.70	.55	.49	.46	.42
40F3303	PLS6/2C2L/D	A	.75	.60	.54	.51	.47
40F3306	PLS6/2C2L/O	A	.75	.60	.54	.51	.47
40F3309	PLS6/CT2L/D	A	.67	.53	.47	.44	.41
40F3310	PLS6/CT2L/E	A					
40F3316	PLS6/CB2L/E	A					
40F3296	PLS6/2C4L/NS	A	.70	.55	.49	.46	.42
40F3297	PLS6/2C4L/D	A	.75	.60	.54	.51	.47
40F3298	PLS6/2C4L/E	A					
40F3300	PLS6/2C4L/O	A					
40F3301	PLS6/2C4L/2018B	A					
40F3160	PLS7/NS	A	.64	.53	.45	.41	.39
40F3161	PLS7/K	A	.69	.58	.50	.46	.44
40F3163	PLS7/M	A	.69	.58	.50	.46	.44
40F3441	PLS7/2C4L/K	A	.91	.76	.68	.64	.60
40F3444	PLS7/2C4L/Q	A	.91	.76	.68	.64	.60
40F3100	PLST/NS	A	.49	.39	.33	.30	.28
40F3101	PLST/G	A	.54	.44	.38	.35	.33
40F3102	PLST/H	A					
40F3103	PLST/I	A					
40F3104	PLST/P	A					
40F3206	PLST/2C2L/NS	A	.63	.51	.45	.42	.38
40F3207	PLST/2C2L/G	A	.68	.56	.50	.47	.43
40F3211	PLST/2C2L/2018A	A					
40F3201	PLST/2C4L/G	A					
40F3202	PLST/2C4L/H	A					
40F3204	PLST/2C4L/P	A					
40F3205	PLST/2C4L/2018A	A					
40F3424	SLS5/2C2L/B	A	.86	.72	.65	.61	.56
40F3417	SLS5/2C4L/A	A	.86	.72	.65	.61	.56
40F3136	SLS6/NS	A	.56	.43	.37	.34	.32
40F3137	SLS6/D	A	.61	.48	.42	.39	.37
40F3352	SLS6/2C2L/E	A	.77	.62	.56	.53	.49
40F3344	SLS6/2C4L/NS	A	.72	.57	.51	.48	.44
40F3345	SLS6/2C4L/D	A	.77	.62	.56	.53	.49
40F3346	SLS6/2C4L/E	A					
40F3348	SLS6/2C4L/O	A					
40F3118	SLST/NS	A	.51	.41	.35	.32	.30
40F3120	SLST/H	A	.56	.46	.40	.37	.35
40F3123	SLST/X2018A	A	.56	.46	.40	.37	.35
40F3279	SLST/2C2L/G	A	.70	.58	.52	.49	.45
40F3274	SLST/2C4L/H	A	.70	.58	.52	.49	.45
40F3276	SLST/2C4L/P	A	.70	.58	.52	.49	.45
40F3608	SPC1-A-4L	G	.26	.20	.17	.16	......
40F3614	SPC1-F-4L	G					
40F3617	SPC1-I-4L	G					
40F3618	SPC2-B-2L	G					
40F3619	SPC2-B-3L	G					
40F3620	SPC2-B-4L	G					
40F3623	SPC2-D-4L	G					
40F3626	SPC2-G-4L	G					
40F3629	SPC2-J-4L	G					
40F3584	SPC11-A-4L	G	.29	.22	.19	.18	......
40F3585	SPC11-C-2L	G					
40F3587	SPC11-C-4L	G					
40F3591	SPC11-I-2L	G					
40F3593	SPC11-I-4L	G					
40F3596	SPC12-A-4L	G					
40F3599	SPC12-C-4L	G					
40F3602	SPC12-F-4L	G					

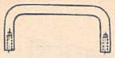
COIL FORM ASSEMBLIES

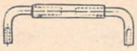
Stock No.	Type	1-49	50-249	250-499	500-999
40F3802	2565-12	1.69	1.40	1.33	1.24
40F3861	2585-11	2.00	1.73	1.57	1.50

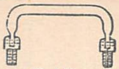
MOUNTING RIVET

Made of brass with a silver plate finish. Overall length of .127 allows for mounting panel, diode clip, and sufficient roll-over. **40F2261. Type 2099-1-01. NET..........................4.10 per M any quan.**

CAMBION® ELECTRONIC COMPONENTS


Oval


Round


Folding

HANDLES

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
40F2204	1075-1	1.16	.98	.85	.84	.82
40F2205	1075-2	.97	.82	.71	.69	.66
40F2157	1230-2	.68	.61	.53	.50	.49
40F2529	1250-1	.99	.83	.72	.70	.67
40F2530	1250-2	.85	.72	.63	.60	.59
40F2206	1252-1	1.02	.86	.75	.72	.70
40F2207	1252-2	.91	.78	.67	.64	.63
40F2172	1261-2	1.10	.93	.81	.78	.76
40F2174	1262-2	1.15	.97	.84	.82	.80
40F2175	1263-1	1.21	1.02	.88	.85	.83
40F2176	1263-2	1.51	1.28	1.11	1.06	1.03
40F2177	1280-1	1.38	1.17	1.01	.97	.94
40F2181	1282-1	1.07	.90	.79	.75	.73
40F2182	1282-2	1.07	.90	.79	.75	.73
40F2183	1283-1	1.31	1.10	.97	.93	.89
40F2185	1290-1	.71	.61	.53	.50	.49
40F2188	1291-2	.77	.65	.57	.54	.53
40F2192	1293-2	1.01	.85	.74	.71	.69
40F2200	1271-1	1.19	1.01	.87	.84	.82
40F2201	1270-1	1.19	1.01	.87	.84	.82
40F2527	1900-1-02	2.80	2.40	2.10	1.99	1.93
40F2202	1965-1	1.19	1.01	.87	.84	.82
40F2203	1965-2	1.12	.95	.83	.79	.77
40F2220	2062-1-02	2.70	2.30	2.00	1.91	1.86
40F2221	2062-1-12	2.50	2.10	1.85	1.77	1.73
40F2222	2066-1	3.10	2.60	2.30	2.20	2.10
40F2211	211-2-02	1.82	1.54	1.33	1.28	1.26
40F2212	211-2-12	1.70	1.44	1.25	1.20	1.16
40F2214	211-3-02	2.10	1.74	1.51	1.44	1.40
40F2215	211-3-12	1.92	1.63	1.41	1.35	1.33
40F2217	211-4-02	2.30	1.93	1.67	1.60	1.56
40F2208	211-1-02	1.62	1.36	1.19	1.13	1.10
40F2209	211-1-12	1.50	1.26	1.10	1.05	1.02
40F2210	2385-1-14	1.23	1.04	.90	.86	.83
40F2213	2385-2-14	1.31	1.10	.97	.93	.92
40F2216	2385-3-14	1.43	1.21	1.05	1.01	.99
40F2219	2385-4-14	1.56	1.32	1.14	1.10	1.07
40F2193	2721-1-02	3.60	3.10	2.70	2.60	2.50

BRACKETS

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
40F2473	1301-1	.12	.11	.10	.09	.085
40F2474	1302-1	.11	.10	.09	.08	.075
40F2475	1303-1	.11	.10	.09	.08	.075
40F2447	1963-1	.12	.11	.10	.09	.085
40F2448	1981-1	.11	.10	.09	.08	.075
40F2449	1998-1					
40F2450	1998-2					
40F2451	1998-3					
40F2452	1998-4					
40F2453	1998-5					

FERRULES

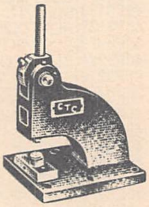
Stk. No.	Type	1-9	10-49	50-99	100-249	250-499	500-999
40F2224	1988-1	.13	.12	.10	.09	.08	.075
40F2225	1988-2	.13	.12	.10	.09	.08	.075
40F2226	1989-1	.19	.18	.17	.16	.15	.14

PRESSURE SWAGER

Designed for quick, uniform swaging of solder terminals on terminal boards. Adjustable to a wide range of terminal board thicknesses. Swaging in place as far as 1⅞" from board edge. Less tooling.

40F1500. Type 3801-1. 2½" Throat
NET 40.00

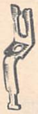
40F1570. Type 3803-1. 5" Throat.
NET 73.95



PRESSURE SWAGER TOOLS

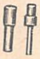
Stk. No.	Type	Stk. No.	Type	NET
40F1575	PSA1	40F1579	PSA47	4.00
40F1576	PSA4	40F1591	PSP6	
40F1571	PSA6	40F1592	PSP30	
40F1581	PSA11	40F1585	PSP1	
40F1577	PSA12	40F1586	PSP4	
40F1572	PSA17	40F1587	PSP11	
40F1573	PSA18	40F1593	PSP13	
40F1574	PSA19	40F1589	PSP17	
40F1582	PSA20	40F1594	PSP18	
40F1583	PSA24	40F1595	PSP32	
40F1578	PSA30	40F1596	PSP46	
40F1584	PSA32	40F1588	PSP54	

40F1599. 6098-1 Adapter for converting to hand set use. **NET**....4.00



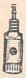
DIODE CLIPS

Stk. No.	Type	EA. 1-999	Per Thousand Pieces 1M-4,999	5M-9,999	10M-24,999	25M-49,999
40F2252	2090-AG	.05	42.60	38.80	35.30	34.50
40F2253	2090-B	.03	21.80	18.10	16.30	15.80
40F2255	2090-C	.02	18.90	15.10	13.40	12.90
40F2258	2090-DG	.04	31.00	27.20	23.70	22.70



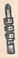
PLUGS AND JACKS

Stk. No.	Type	Each 1-999	Per Thousand Pieces 1000-4999	5000-9999	10,000-24,999	25,000-49,999
40F2745	3231-1	.03	26.00	23.80	21.07	21.00
40F2746	3231-2	.03	26.00	23.80	21.07	21.00
40F2747	3231-3	.03	26.00	23.80	21.07	21.00
40F2748	3230-1	.17	161.00	132.00	120.00	115.00



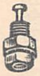
Jacks

Stk. No.	Type	EA. 100-999	Per Thousand Pieces 1M-4,999	5M-9,999	10M-24,999	25M-49,999
40F2288	2265-1-08	.15	147.00	120.00	109.00	105.00
40F2544	2378-5-08	.15	147.00	120.00	109.00	105.00



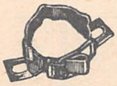
Plugs

40F2292	2201-2-08	.05	40.00	33.10	29.30	28.90
40F2545	2319-1-08	.09	83.00	68.00	62.10	60.00
40F2546	2379-1-08	.05	40.40	33.10	29.90	28.90
40F2531	2379-2-08	.05	40.40	33.10	29.90	28.90



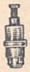
BANANA PLUG JACKS

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
40F2287	2425-1	.23	.21	.20	.18	.17



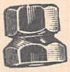
TUBE CLAMPS

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
40F2467	1817-A	.79	.71	.66	.61	.57
40F2468	1817-B					
40F2470	1817-D					



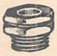
BINDING POSTS

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
40F2233	1775-1	.43	.40	.37	.34	.30



SHAFT LOCK

40F2236	1774-1-02	.25	.23	.21	.20	.19
40F2239	2038-1-12	.20	.19	.18	.17	.16



PANEL BUSHING

40F2242	2117-A	.19	.18	.17	.16	.15
40F2243	2117-B					
40F2244	2117-C					

STANDOFF INSULATORS

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
40F2561	1246-1	.12	.11	.10	.09	.085
40F2565	1246-5					
40F2568	1246-8					
40F2569	1246-9					
40F2570	1246-10					
40F2571	1246-11					
40F2572	1246-12					
40F2573	1246-13					
40F2574	1246-14					
40F2575	1246-15					
40F2576	1246-16					
40F2577	1246-17					
40F2578	1246-18					
40F2579	1246-19					
40F2580	1246-20					
40F2581	1246-21					
40F2582	1246-22					
40F2583	1246-23					
40F2584	1246-24					
40F2587	1246-27					
40F2588	1246-28					
40F2591	1246-31					
40F2592	1246-32					
40F2484	1300-9					
40F2485	1300-10					
40F2492	1300-17					
40F2493	1300-18					
40F2494	1300-19					
40F2495	1300-20					
40F2457	1801-1	.13	.12	.11	.09	.085
40F2458	1801-2					
40F2459	1801-3					
40F2460	1801-4					
40F2461	1801-5					
40F2462	1801-6					
40F2471	1299-1	.10	.09	.09	.08	.075
40F2472	1299-2	.10	.09	.09	.08	.075

SLUGS, INSULATORS, CLIPS, TERMINALS

CAMBRIDGE THERMIONICS CORPORATION

TUNING SLUGS AND CORES

Stk. No.	Type	1-49	50-999
40F3060	2018-A	.18	.14
40F3062	2018-C	.23	.18
40F3063	2018-D	.24	.19
40F3042	2050-1	.12	.10
40F3046	3227-2	.04	.03
40F3047	3226-3	.04	.03
40F3048	3227-3	.04	.03
40F3050	3226-1	.04	.03

Stk. No.	Type	1-49	50-999
40F3051	3227-1	.04	.03
40F3053	3226-4	.04	.03
40F3054	3227-4	.04	.03
40F3065	2250-1	.15	.12
40F3000	20063-A	.13	.10
40F3002	20063-C	.13	.10
40F3003	20063-D	.12	.10

Stk. No.	Type	1-49	50-999
40F3004	20063-E	.12	.10
40F3005	20063-F	.12	.10
40F3006	20063-G	.12	.10
40F3007	20063-H	.12	.10
40F3013	20063-N	.13	.10
40F3014	20063-O	.12	.10
40F3015	20063-P	.12	.10
40F3016	20063-Q	.14	.11

TUNING TOOLS

Stk. No.	Type	NET
40F3892	1970-1	.75 ea.
40F3893	1971-1	
40F3894	2033-1	

Stk. No.	Type	NET
40F3895	2230-1	1.00 ea.
40F3896	2375-1	.75 ea.
40F3897	2516-1	.75 ea.

CAPTIVE PANEL SCREWS

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
40F2227	1786-1-02	.73	.67	.62	.57	.52

THUMBSCREWS

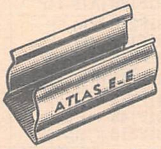
Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
40F2246	1120-A-2	.25	.23	.21	.20	.19
40F2247	1120-B	.25	.23	.21	.20	.19

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
40F2249	1120-C	.25	.23	.21	.20	.19
40F2250	1120-C-2	.25	.23	.21	.20	.19

WRITE FOR FREE CAMBION CATALOG, Stock No. 40F000. A clear reference guide to Electronics Components.

ATLEE PRODUCTS

COMPONENT HOLDERS

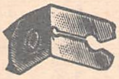


Protect capacitors, resistors, relays, cables, tubes against shock and vibration. SAE #1065 annealed carbon steel. Cadmium plated. These holders withstand vibrations of 90 G's at 500 cycles for one minute and 1750 impact shocks of 200 G's. *Three mounting holes, † 2 holes, rest have 1 hole. Diam. in inches. Approx. shpg. wt., 1 oz.

Stk. No.	Type 100-200-	Comp. Dia.	Ht.	Wth.	Lg.	Mtg. hole dia.	1-9 Ea.	10-99 Ea.	100-499 Ea.	500-999 Ea.
43F000	1-0†	.175	.250	.20	5⁄8	.071	.14	.12	.10	.085
43F001	2-0†	.195	.270	.210	5⁄8	.071	.14	.12	.10	.085
43F002	4-0†	.235	.325	.260	5⁄8	.093	.14	.11	.09	.08
43F003	4A-0†	.260	.340	.280	1⁄2	.093	.14	.11	.09	.08
43F004	4A-1	.260	.340	.280	1⁄4	.093	.14	.11	.09	.08
43F005	5-0†	.312	.380	.344	3⁄4	.093	.14	.11	.09	.08
43F006	6-0*	.375	.480	.411	1 1⁄8	.103	.14	.11	.09	.08
43F007	7-0†	.400	.489	.436	3⁄4	.103	.16	.13	.11	.09
43F008	9-0*	.562	.690	.608	1	.127	.16	.13	.11	.10
43F009	11-0*	.670	.820	.720	1 3⁄8	.127	.18	.15	.13	.11
43F010	12-0*	.750	.920	.808	2	.144	.28	.19	.17	.15

Stk. No.	Type 100-200-	Comp. Dia.	Ht.	Wth.	Lg.	Mtg. hole dia.	1-9 Ea.	10-99 Ea.	100-499 Ea.	500-999 Ea.
43F011	14-0*	.375	.460	.400	1 3⁄16	.093	.14	.11	.09	.08
43F012	16-0*	.400	.490	.420	1 3⁄16	.093	.14	.11	.09	.08
43F013	13-0*	1.00	1.22	1.06	1 7⁄8	.144	.32	.22	.20	.18
43F014	15-0*	1.125	1.34	1.19	1 3⁄8	.162	.30	.20	.18	.16
43F015	10-0*	.562	.690	.600	1 5⁄8	.128	.18	.15	.13	.11
43F016	1-2	.175	.250	.200	1⁄4	.071	.14	.12	.10	.085
43F017	1-9	.175	.250	.200	1⁄8	.035	.14	.11	.09	.08
43F018	2-6	.195	.270	.220	5⁄16	.071	.14	.12	.10	.085
43F019	4-4	.235	.320	.260	5⁄16	.093	.14	.11	.09	.08
43F020	5-12†	.312	.380	.340	3⁄4	.093	.15	.12	.10	.08
43F021	5-14	.312	.380	.340	3⁄16	.093	.14	.11	.09	.08
43F022	14-1†	.375	.460	.400	25⁄32	.093	.14	.11	.09	.08
43F023	16-1†	.400	.490	.420	25⁄32	.093	.14	.11	.09	.08
43F024	16-8	.400	.490	.420	3⁄8	.093	.14	.11	.09	.08
43F026	3-2*	.195	.270	.220	1 3⁄16	.071	.15	.12	.10	.09
43F078	5-5†	.312	.380	.344	1 3⁄4	.093	.14	.11	.09	.08
43F080	13-3	1.00	1.22	1.06	1 7⁄8	.144	.32	.22	.20	.18
43F081	10-5	.562	.690	.600	1 5⁄8	.128	.18	.14	.12	.10
43F083	12-3	.750	.920	.808	1 1⁄4	.144	.24	.155	.14	.13

CRYSTAL DIODE CLIPS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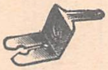
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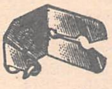
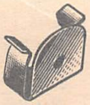

Type U

Can be riveted or soldered directly to printed circuits, or can be connected by dip soldering techniques. Ideal for ultra high frequency use. Type L is hollow rivet for through panel mounting. Type U is for surface panel mounting. Type S for rear of panel connections. Approx. shpg. wt., 4 oz./1000.

Stock No.	Type	1-99 Ea.	100-499 Per 100	500-999 Per 100
43F050	Type L	.02	1.90	1.70
43F051	Type U	.03	2.10	1.95
43F052	Type S	.04	2.25	2.05

ATLEE CLIPS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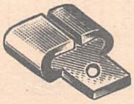
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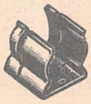
100-239

Approx. shpg. wt., 4 oz./1000.

Stk. No.	Type	Description	1-9 Ea.	10-99 Ea.	100-499 Ea.	500-999 Ea.
43F065	100-245	Universal clip for JETEC 30 cad. plated steel	.05	.03	.028	.025
43F066	101-345-0	As above but silver plated copper	.26	.185	.16	.145
43F067	102-317-0	Heat Sink for 2N145, 2N172, 2N343	.19	.145	.125	.11

Stk. No.	Type	Description	1-9 Ea.	10-99 Ea.	100-499 Ea.	500-999 Ea.
43F068	102-317-1	As 102-317-0 but with .150'' long mtg. tab.	.21	.155	.135	.12
43F069	102-317-2	Same as above with .250'' long mtg. tab.	.21	.155	.135	.12
43F073	100-239-0	For GE 2N43 and others with top hat	.25	.20	.18	.16
43F074	100-203-1	For large oval cases such as 2N63	.10	.065	.06	.055
43F076	101-335-0	For 2N109	.42	.35	.30	.25
43F077	101-336-0	Steel Clip for 2N43	.48	.39	.34	.29
43F028	100-223-4	No Twist Clip for 3⁄4'' Component	.10	.063	.056	.051
43F027	109-501-2	Tube Shield for T-1 Envelope	.34	.23	.21	.19

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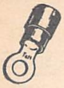
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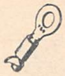
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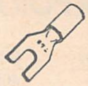
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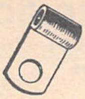
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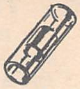
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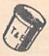
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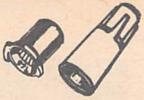
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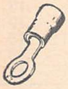
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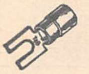
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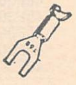
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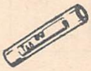
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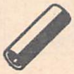
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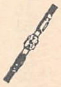
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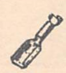
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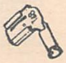
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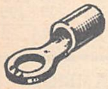
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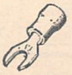
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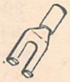
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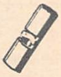
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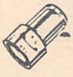
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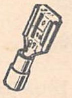
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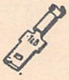
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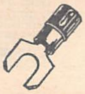
W

Stock No.	Type	Fig.	Wire Size	Stud Size	Insul. Material	NET PER 100		
						100	500	5000
31F100	RZ22-2	A	26-22	2	Nylon	7.20	5.60	4.42
31F101	RZ22-4	A	26-22	4	Nylon			
31F104	RZ22-10	A	26-22	10	Nylon			
31F105	RA18-4	A	22-16	4	Nylon			
31F219	RA18-6	A	22-16	6	Nylon			
31F220	RA18-8	A	22-16	8	Nylon			
31F221	RA18-10	A	22-16	10	Nylon			
31F222	RA18-14	A	22-16	¼	Nylon	8.30	6.30	4.97
31F223	RB14-6*	A	16-14	6	Nylon	7.20	5.60	4.42
31F224	RB14-8*	A	16-14	8	Nylon			
31F225	RB14-10*	A	16-14	10	Nylon			
31F226	RB14-14*	A	16-14	¼	Nylon	8.30	6.30	4.97
31F228	RC10-8*	A	12-10	8	Nylon	9.50	7.30	5.52
31F229	RC10-10*	A	12-10	10	Nylon			
31F230	RC10-14*	A	12-10	¼	Nylon	10.00	7.80	6.00
31F107	18RA-4*	B	22-18	4	Plastic	4.00	2.90	2.20
31F108	18RA-6*	B	22-18	6	Plastic			
31F109	18RA-8*	B	22-18	8	Plastic			
31F113	14RB-6*	B	16-14	6	Plastic	4.00	2.90	2.20
31F114	14RB-8*	B	16-14	8	Plastic			
31F115	14RB-10*	B	16-14	10	Plastic			
31F116	14RB-14*	B	16-14	¼	Plastic	5.05	3.75	2.84
31F117	10RC-6*	B	12-10	6	Plastic	5.45	4.00	3.10
31F119	10RC-10*	B	12-10	10	Plastic			
31F120	10RC-14*	B	12-10	¼	Plastic	5.85	4.30	3.40
31F121	A18-4	C	22-18	4	Not Ins.	3.75	2.64	1.98
31F200	A18-6	C	22-18	6	Not Ins.			
31F201	A18-8	C	22-18	8	Not Ins.			
31F202	A18-10	C	22-18	10	Not Ins.			
31F122	B14-4	C	20-14	4	Not Ins.	3.75	2.64	1.98
31F204	B14-6	C	20-14	6	Not Ins.			
31F205	B14-8	C	20-14	8	Not Ins.			
31F206	B14-10	C	20-14	10	Not Ins.			
31F207	B14-14	C	20-14	¼	Not Ins.	4.80	3.50	2.62
31F208	C10-6	C	16-10	6	Not Ins.	5.20	3.80	2.90
31F209	C10-8	C	16-10	8	Not Ins.			
31F210	C10-10	C	16-10	10	Not Ins.			
31F211	C10-14	C	16-10	¼	Not Ins.	5.60	4.20	3.17
31F212	B14-6G	D	20-14	6	Ins. Grip	4.30	3.20	2.50
31F123	B14-8G	D	20-14	8	Ins. Grip			
31F213	B14-10G	D	20-14	10	Ins. Grip			
31F236	RA18-6F	E	22-16	6	Nylon	7.20	5.60	4.42
31F237	RA18-8F	E	22-16	8	Nylon			
31F238	RA18-10F	E	22-16	10	Nylon			
31F125	RA18-14F	E	22-16	¼	Nylon	8.30	6.30	4.97
31F231	RB14-6F	E	16-14	6	Nylon	7.20	5.60	4.42
31F232	RB14-8F	E	16-14	8	Nylon			
31F233	RB14-10F	E	16-14	10	Nylon			
31F126	RB14-14F	E	16-14	¼	Nylon	8.30	6.30	4.97
31F127	RC10-6F	E	12-10	6	Nylon	9.50	7.30	5.52
31F234	RC10-10F	E	12-10	10	Nylon			
31F235	RC10-14F	E	12-10	¼	Nylon	10.00	7.80	6.00
31F129	18RA-6F*	F	22-18	6	Plastic	4.00	2.90	2.20
31F130	18RA-8F*	F	22-18	8	Plastic			
31F131	18RA-10F*	F	22-18	10	Plastic			
31F132	14RB-6F*	F	16-14	6	Plastic			
31F133	14RB-8F*	F	16-14	8	Plastic			
31F134	14RB-10F*	F	16-14	10	Plastic			
31F136	10RC-10F*	F	12-10	10	Plastic	5.45	4.00	3.10

Stock No.	Type	Fig.	Wire Size	Stud Size	Insul. Material	NET PER 100		
						100	500	5000
31F214	A18-6F	G	22-18	6	Not Ins.	3.75	2.64	1.98
31F138	A18-8F	G	22-18	8	Not Ins.			
31F215	A18-10F	G	22-18	10	Not Ins.			
31F139	A18-14F	G	22-18	¼	Not Ins.	4.80	3.50	2.62
31F216	B14-6F	G	20-16	6	Not Ins.	3.75	2.64	1.98
31F140	B14-8F	G	20-16	8	Not Ins.			
31F217	B14-10F	G	20-16	10	Not Ins.			
31F141	B14-14F	G	20-16	¼	Not Ins.	4.80	3.50	2.62
31F142	C10-6F	G	16-10	6	Not Ins.	5.20	3.80	2.90
31F143	C10-8F	G	16-10	8	Not Ins.			
31F218	C10-10F	G	16-10	10	Not Ins.			
31F144	C10-14F	G	16-10	¼	Not Ins.	5.60	4.20	3.17
31F145	B14-6FG	H	20-14	6	Not Ins.	4.30	3.20	2.50
31F146	B14-8FG	H	20-14	8	Not Ins.			
31F148	B14-14FG	H	20-14	¼	Not Ins.	5.00	3.90	3.20
31F150	RA18-8FS	W	22-16	8	Nylon	7.20	5.60	4.42
31F153	RB14-8FS	I	16-14	8	Nylon			
31F158	B14-6FS	I	20-14	6	Not Ins.	3.75	2.64	1.98
31F241	AB14-6A	J	20-14	6	Not Ins.	4.00	3.10	2.40
31F243	AB14-10A	J	20-14	10	Not Ins.			
31F245	C10-8A	J	16-10	8	Not Ins.	5.00	4.00	3.20

(*) Self insulated terminals, available with expanded insulation. Write for complete ordering information.

Stock No.	Type	Fig.	Wire Range	NET PER 100		
				100	500	5000
31F250	2RA18*	K	22-18	6.88	5.35	3.85
31F251	2RB14*	K	16-14	6.88	5.35	3.85
31F252	2RC10*	K	12-10	9.69	7.02	5.20
31F247	2A18	L	22-18	4.66	3.20	2.40
31F248	2B14	L	20-14	4.66	3.20	2.40
31F249	2C10	L	16-10	6.35	4.50	3.35
31F260	2A20	M	22-20	5.60	4.40	3.15
31F261	2B16	M	18-16	5.60	4.40	3.15
31F163	2A22-20	N	22-20	3.65	2.45	1.85
31F164	2B18-16	N	18-16	3.65	2.45	1.85
31F165	2C14-12	N	14-12	4.55	3.12	2.35
31F239	RB44	O	2#20-2#16	4.00	2.70	2.00
31F240	RC55	O	3#16-3#14	5.80	4.45	3.35
				Each 1-99	Net Per 100 100	1000
31F171	PT66M	S	3#12	.42	3.25	2.60
				Each 1-999	Net Per 100 200	2000
31F172	PT70	P	3#12	.16	1.25	1.00
31F173	PT70M	P	4#12	.16	1.25	1.00
				Each 1-49	Net Per 100 50-499	500
31F174	PT80	P	4#10	.45	.35	2.80
31F255	B14-D**	Q	20-14	.78	.55	4.20
				Each 1-99	Net Per 100 100	500
31F256	B14-250F	T	20-14	.48	3.70	2.80
31F258	B14-250A	V	20-14	.56	4.40	3.50
31F257	B14-250T	U	20-15	.48	3.70	2.80
31F175	RB14-250F	R	16-14	.87	7.70	5.42

(*) Available with expanded insulation.
(**) Flat Tab Style—¼". Straight Female.

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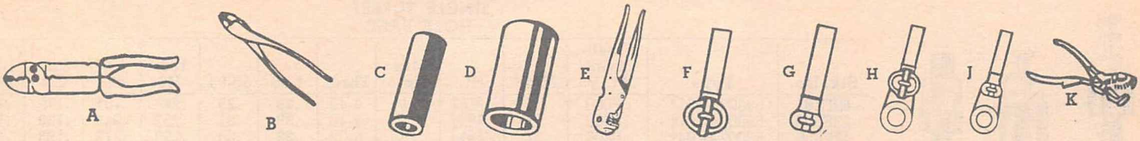
THOMAS & BETTS CONNECTORS



STA-KON INSTALLING TOOLS

Stock No.	Type	Fig.	For Use With STA-KON Type	NET
31F177	WT100M	A	A, B, C, AB, RA, AB, RC	4.50
31F265	WT-111M	B	A, B, C	3.95
31F179	WT-161	B	A, B, C, RA, RB, RC	6.50

TY-RAP CABLE TIES AND STRAPS

Ideal for harnessing wire bundles up to 1¾" dia. Prevents concentration of pressures on one point. Does a complete job of tying, clamping and Type TY-542 has identification plate built in. Replaces all string and tape harnesses. Temp. Range: —65°F to +350°F. Standard color: Natural white nylon. Available on special order: (Minimum order—100) black, brown, red, orange, yellow, green, blue, purple and gray. Wt., 35 oz. All are tool applied except * Self clinching.

Stock No.	Type	Fig.	Dia. Range	NET PER 100 1-99	100	500
31F269	TY-525*	F	1/16"x1¾"	8.00	6.90	5.50
31F271	TY-503*	G	1/16"x¾"	3.84	3.00	2.40
31F272	TY-505	G	1/16"x1¾"	5.60	4.40	3.50
31F273	TY-507	G	⅛"x3¾"	19.20	15.00	12.00
31F275	TY-535*	H	1/16"x1¾"	9.60	7.50	6.00
31F276	TY-513	J	1/16"x¾"	4.80	3.75	3.00
31F277	TY-515	J	1/16"x1¾"	6.40	5.00	4.00

TY-RAP MOUNTING PLATE—CLAMP MOUNT

Stock No.	Type	Description	NET PER 100 1-99	100	500
31F280	TC501	Fits all ties except Types TY507 and TY517	4.80	3.75	3.00
31F389	TC503	For TY507 and TY517	19.20	15.00	12.00

STA-KON KITS

Stock No.	Type	Descriptions	NET
31F264	PK4	Insulated STA-KON Kit	29.75
31F263	#20	100EA. A-18-10, B14-10; 50EA C10-10 plus Crimp Tool WT-111M	7.20

STA-KON GROUNDING SHEATH CONNECTORS

For shielded wire and coaxial cable braid termination. To install, the inner sleeve is inserted under the braid and the outer sleeve fitted over the braid and ground wire. The connection is then compressed with the specially designed tool.

INNER SLEEVES

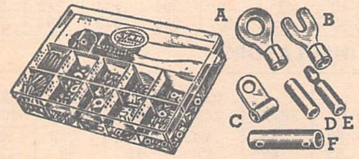
Stock No.	Type	Fig.	I.D.	O.D.	Color Code	NET PER 100 100	500	5000
31F284	GSB046C	C	.046	.070	Tin	4.10	2.95	2.20
31F286	GSB063C	C	.063	.088	Red	4.10	2.95	2.20
31F290	GSB096C	C	.096	.119	Purple	4.10	2.95	2.20
31F298	GSC149C	D	.149	......	Purple	4.90	3.50	2.65

TY-RAP INSTALLING TOOLS

Stock No.	Type	Fig.	For Use With TY-RAPS	NET
31F281	WT-183F	K	TY505, 515, 508, 542	15.00
31F282	WT-185F	K	TY503, 515	15.00
31F283	WT-186F	K	TY507-517	15.00

NEWARK CAN SUPPLY ALL YOUR
T. & B. CO. NEEDS
WRITE FOR COMPLETE INFORMATION

VACO TERMINAL KIT



Type 2195. With crimping tool & terminals. Tool cuts and strips wire and crimps terminal on stripped portion of wire. One compact unit needed for making clean, fast, trouble-free electrical connections. The kit consists of 11 bin plastic box with crimping tool and over 200 terminals in 10 sizes. Case 8¾x6x1¾". Wt., 2 lbs.

30F900. NET **8.72**

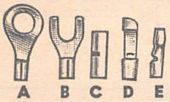
EXTRA TERMINALS

Stock No.	Mfr's. Type	Fig.	Wire Size	Stud Size	Pkg. Quan.
30F901	2300	A	22-16	4-6	41
30F902	2301	A	22-16	4-6	41
30F903	2302	A	22-16	8-10	41
30F904	2303	A	22-16	12¼	32
30F905	2304	A	22-16	⅜	32
30F906	2400	A	16-14	4-6	41
30F907	2401	A	16-14	4-6	41
30F908	2402	A	16-14	8-10	41
30F910	2403	A	16-14	12¼	32
30F911	2404	A	16-14	⅜	32
30F912	2502	A	12-10	8-10	32
30F913	2503	A	12-10	12¼	24
30F914	2504	A	12-10	⅜	24

Stock No.	Mfr's. Type	Fig.	Wire Size	Stud Size	Pkg. Size
30F909	2600	B	22-16	4-6	45
30F915	2601	B	16-14	4-6	41
30F916	2602	B	16-14	8-10	41
30F917	2702	B	12-10	8-10	32
30F918	2802	C	22-16	8-10	41
30F919	2902	C	16-14	8-10	41
30F920	3002	C	12-10	8-10	32
30F921	3101	D	22-16		52
30F922	3102	D	16-14		52
30F923	3103	D	12-10		41
30F926	3202	E	16-14	Std.	52
30F927	3203	E	16-14	Large	49
30F924	3104	F	-	Std.	32
30F925	3105	F	-	Large	28

NET per Pkg. **98c**

AMP TERMINALS



Popular terminals for wiring and ignition service. Solistrand type illustrated. Plastic-grip* with insulating sleeve.

Stock No.	Mfrs. Type	Fig.	Wire Size	Stud Size	Pkg. 100
30F970	34149-C*	A	22-16	8-10	6.25
30F971	34144-C*	A	22-16	4-6	6.25
30F972	34070-C*	C	22-16	....	7.50
30F973	34158-C*	A	16-14	4-6	6.25
30F974	34161-C*	A	16-14	8-10	6.25
30F975	34165-C*	B	16-14	4-6	6.25

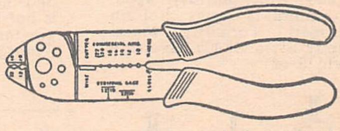
Stock No.	Mfrs. Type	Fig.	Wire Size	Stud Size	Pkg. 100
30F976	34167-C*	B	16-14	8-10	6.25
30F977	34071-C*	C	16-14	....	7.50
30F979	33214-C	A	22-16	8-10	4.46
30F980	34194-C	A	22-16	4-6	3.91
30F981	31818-C	C	22-16	....	4.66
30F982	34197-C	A	16-14	8-10	4.46
30F983	33217-C	A	16-14	8-10	3.91
30F985	33219-C	B	16-14	4-6	4.99
30F987	31763-C	D	16-14	....	9.23
30F988	34846-C	E	16-14	....	2.25

HARDWARE ASSORTMENT

An exceptionally useful asortment of screws, nuts, washers, springs, clamps, eyelets, grommets, terminals, etc. Up to 1000 pieces of standard hardware, all in popular sizes. Handy plastic box. Wt., 2½ lbs.

31F970. NET **97c**

AMP TERMINAL TOOL



Handy serviceman's tool for crimping solderless terminals, for stripping and cutting wire, shearing bolts, etc. Shears bolts in 10-24, 10-32, 8-32, 6-32 and 4-40 sizes. Has B & S wire gauge. May be used with terminals listed at left. Length, 7⅜". Wt., 1 lb.

30F999. Type 49835-1. NET **4.95**

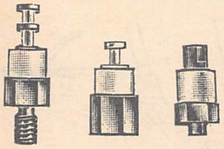
Plastic Grip Tool. For installing AMP pre-insulated terminals. Also cuts, strips wire. 2 sets of crimping notches adapts tool to wire sizes No. 22 to No. 10. 1 lb.

30F998. Type 47100-1. NET **4.95**

COMPLETE RANGES OF ELECTRICAL HARDWARE ITEMS ARE AVAILABLE AT NEWARK

GARLOCK

INSULATORS



CHEMELEC STAND-OFF INSULATORS

Applied as insulated tie-points in circuit wiring, offering low-loss, high-frequency service in radar TV, and other electronic equipment. They are unaffected by humidity, mechanical shock and vibration, and are designed for ambient temp. from —110°F to +500°F; pressure altitudes from 0 to 80,000 feet. Insulation is Teflon TFE. Turrets are machined from brass rod, hot tin dipped for easy soldering. Bases are hex brass, cadmium plated per QQP-416 Type 2, Class C and iridite (olive drab) dipped in compliance with military specifications. Formerly Metal Base Style (*) TE400. (†) TE401. (**) TE402. Average Shpg. Wt. 3 oz.

CHEMELEC STAND-OFF INSULATORS

SINGLE TURRET
HOLE BASE

Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	Thrd.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F591	69002-0001*	7000	.12	31/64	1/8	4-40	.38	.29	.24	.197	.179	.174
42F603	69002-0101†	6300	.24	19/32	1/8	4-40	.39	.31	.252	.212	.193	.189
42F606	69002-0104†	6300	.24	19/32	.145	6-32	.39	.30	.250	.212	.193	.179
42F618	69002-0201**	15500	.14	1 11/64	1/8	4-40	.45	.37	.330	.288	.268	.254
42F621	69002-0204**	15500	.14	1 11/64	.145	6-32	.45	.37	.330	.288	.268	.254

DOUBLE TURRET
HOLE BASE

Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	Thrd.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F592	69002-0002*	7000	.12	35/64	1/8	4-40	.38	.30	.24	.20	.181	.177
42F604	69002-0102†	6300	.24	23/32	1/8	4-40	.39	.31	.245	.210	.191	.186
42F607	69002-0105†	6300	.24	23/32	.145	6-32	.39	.31	.245	.21	.191	.186
42F619	69002-0202**	15500	.14	1 19/64	1/8	4-40	.45	.37	.328	.285	.266	.252
42F622	69002-0205**	15500	.14	1 19/64	.145	6-32	.45	.37	.328	.285	.266	.252

SLOTTED TURRET
HOLE BASE

Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	Thrd.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F593	69002-0003*	7000	.12	31/64	1/8	4-40	.41	.33	.275	.233	.214	.200
42F605	69002-0103†	6300	.24	19/32	1/8	4-40	.41	.33	.275	.233	.214	.200
42F608	69002-0106†	6300	.24	19/32	.145	6-32	.41	.33	.275	.233	.214	.200
42F623	69002-0206**	15500	.14	1 11/64	.145	6-32	.47	.39	.353	.311	.292	.278

SINGLE TURRET
STUD BASE

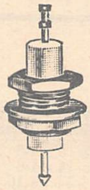
Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	Thrd.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F594	69002-0007*	7000	.12	43/64	1/8	4-40	.39	.31	.252	.212	.193	.189
42F597	69002-0010*	7000	.12	43/64	.145	6-32	.39	.30	.252	.212	.193	.179
42F612	69002-0110†	6300	.24	49/64	.145	6-32	.39	.31	.256	.217	.197	.184
42F627	69002-0210**	15500	.14	1 11/32	.145	6-32	.46	.38	.334	.292	.273	.259

DOUBLE TURRET
STUD BASE

Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	Thrd.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F595	69002-0008*	7000	.12	3/4	1/8	4-40	.39	.31	.25	.214	.196	.191
42F598	69002-0011*	7000	.12	3/4	.145	6-32	.39	.30	.252	.212	.193	.179
42F610	69002-0108†	6300	.24	57/64	1/8	4-40	.39	.30	.254	.214	.195	.181
42F613	69002-0111†	6300	.24	57/64	.145	6-32	.39	.30	.254	.214	.195	.181
42F625	69002-0208**	15500	.14	1 15/32	1/8	4-40	.45	.38	.332	.290	.271	.257
42F628	69002-0211**	15500	.14	1 15/32	.145	6-32	.45	.38	.332	.290	.271	.257

SLOTTED TURRET
STUD BASE

Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	Thrd.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F611	69002-0109†	6300	.24	49/64	1/8	4-40	.43	.35	.304	.284	.242	.228
42F629	69002-0212**	15500	.14	1 11/32	.145	6-32	.47	.40	.355	.313	.294	.280



CHEMELEC FEED-THRU.

Have a hollow-threaded metal body which fits through bed plate and is secured by a hex nut. Terminal passing through hollow body is spaced by a force-fitted Teflon TFE plug. Insulation is Teflon TFE. Body is cadmium plated per QQP-416 Type 2 Class C and iridite (olive drab) dipped in compliance with military spec. Terminal is brass, hot tin dipped. Formerly Metal Body Style CF405. Average wt., 3 oz.

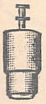
CHEMELEC FEED-THRU INSULATORS

Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	1-49	50-99	100-249	250-499	500-999	1000-4999
42F554	69001-0500‡	3500	2.0	.690	12-28	.53	.45	.420	.378	.360	.355
42F555	69001-0501‡	3500	2.0	.690	12-40	.55	.47	.45	.41	.38	.38
42F556	69001-0600	4500	1.5	.876	1/4-32	.60	.58	.465	.424	.405	.40
42F557	69001-0700	6300	1.95	1.316	3/8-32	1.16	1.07	.95	.91	.90	.89

‡Terminal has one turret only; part is supplied without washer.

CHEMELEC COMPRESSION INSULATORS

Chemelec Stand Off and Feed Thru compression insulators can be compressed into mounting holes and are self fastening, requiring no additional hardware. This reduces assembly time and costs, assures high-speed economical production. The properties of Teflon TFE permit press-fit without breakage. Insulators are shock and vibration proof; they can be soldered without damage because of high heat resistance. Excellent electrical characteristics make them easily adaptable to miniaturization and high frequency, high voltage circuits. Insulator body is Teflon TFE. Solder terminal is brass; finish is hot tin dip except where noted. All flashover point readings are short time tested at sea level. Capacitance values are based on a frequency of 1000 KC with units mounted on 1/16" aluminum panel. Average shipping weight, 3 oz.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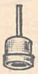
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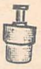
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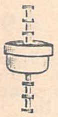
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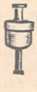
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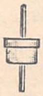
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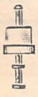
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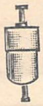
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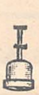

9

STAND-OFF INSULATORS, COMPRESSION MOUNTED
(FORM. STYLE TE405-TE413)

Stock No.	Type	Flash-over pt. VRMS	Cap. uuf	Fig.	L.	Mtg. Dia.	Out-side Dia.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F643	69002-1300	6300	.40	1	17/32	.245	.312	.40	.31	.257	.214	.195	.191
42F642	69002-1235	7000	.25	9	21/32	.187	.250	.39	.32	.261	.218	.200	.195
42F651	69002-5311	3500	.5	2	.365	.148	.172	.14	.13	.12	.11	.108	.105
42F652	69002-5312	4000	.5	2	.382	.148	.172	.33	.25	.184	.141	.122	.118
42F655	69002-5340	3500	.5	3	.245	.148	.172	.33	.26	.192	.148	.129	.112
42F657	69002-5344	3500	.5	3	.240	.148	.172	.32	.24	.172	.129	.110	.0965
42F661	69002-6324	5000	.32	3	.358	.165	3/16	.36	.28	.221	.179	.160	.146
42F666	69002-6355	5000	.40	3	.443	.171	3/16	.37	.29	.231	.188	.169	.155
42F656	69002-5342	3500	.5	1	.365	.148	.172	.32	.24	.177	.134	.115	.101
42F634	69002-0600	5000	.32	1	.421	.165	3/16	.14	.13	.125	.115	.105	.10
42F664	69002-6351	5000	.40	1a	9/16	.171	3/16	.34	.26	.200	.158	.139	.125
42F665	69002-6352	5000	.40	1b	.482	.148	.172	.34	.26	.198	.155	.136	.122
42F637	69002-0900	10000	.10	1	.696	.165	3/16	.32	.30	.25	.187	.168	.147
42F668	69002-8064	7500	.18	1	.600	.171	3/16	.36	.29	.226	.184	.165	.151
42F633	69002-0500	3500	.5	2	.365	.148	.172	.10	.09	.092	.085	.080	.075
42F647	69002-5301	4000	.5	2	.365	.148	.172	.30	.22	.151	.108	.089	.075
42F653	69002-5313	3500	.5	2	.382	.148	.172	.33	.25	.188	.146	.127	.122
42F658	69002-5351	3500	.5	2a	.605	.148	.172	.38	.29	.177	.134	.115	.101
42F667	69002-8050	7500	.20	2	.600	.165	3/16	.34	.26	.200	.158	.139	.125

a. Electro tin plated terminal; b. Silver plated terminal. **CONTINUED ON NEXT PAGE.**

CHEMELEC COMPRESSION INSULATORS CONTINUED

FEED-THRU INSULATORS—COMPRESSION MOUNTED
(FORM. STYLE CF408-CF418)

Stock No.	Type	Flash-over pt. VRMS	Cap. uuf	Fig.	L.	Mtg. Dia.	Out-side Dia.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F565	69001-1800	6000	.75	4	13/16	.245	5/16	.49	.41	.374	.332	.313	.308
42F663	69002-6341	4000	.65	3A	.351	.148	.172	.34	.26	.200	.158	.139	.125
42F583	69001-8357	1500	.7	5	.443	.148	.172	.34	.27	.202	.160	.141	.127
42F558	69001-0800	3500	.72	6	.515	.148	.172	.10	.09	.092	.085	.080	.075
42F568	69001-8010	3900	.50	6	.515	.179	.200	.32	.24	.169	.127	.108	.104
42F569	69001-8020	4000	.45	6	.515	.218	.250	.33	.25	.183	.141	.122	.1175
42F570	69001-8030	3500	.60	6	.443	.148	.172	.30	.22	.148	.1059	.087	.082
42F573	69001-8314	3500	.72	6	.515	.148	.172	.32	.22	.151	.108	.090	.085
42F574	69001-8316	3500	.72	6	.375	.148	.172	.30	.22	.148	.106	.087	.0824
42F575	69001-8317	3500	.72	6	.407	.148	.172	.30	.22	.151	.108	.090	.085
42F579	69001-8339	3500	.65	6	1.000	.148	.172	.31	.27	.207	.165	.146	.141
42F585	69001-8364	3500	.65	6	.535	.148	.172	.14	.13	.12	.09	.085	.073
42F590	69001-9366	5000	.90	6D	.740	.171	3/16	.36	.28	.216	.174	.155	.151
42F564	69001-1382	7000	.82	6D	.865	.171	3/16	.42	.34	.290	.247	.228	.224
42F582	69001-8353	3500	.72	8	.325	.148	.172	.33	.25	.188	.146	.127	.122
42F559	69001-0900	5000	.90	8	.740	.171	3/16	.22	.19	.17	.15	.14	.135
42F588	69001-9325	5000	.90	8	.835	.171	3/16	.38	.26	.228	.178	.152	.143
42F589	69001-9354	4000	.80	8	.562	.171	3/16	.41	.34	.284	.242	.223	.218
42F560	69001-1000	7000	.82	8	.865	.171	3/16	.30	.27	.22	.18	.175	.17
42F563	69001-1300	15500	1.02	8	1.965	.217	1/4	.80	.72	.704	.696	.688	.673
42F576	69001-8320	3500	.50	7B	.421	.148	.172	.30	.25	.19	.15	.142	.12
42F578	69001-8337	3500	.72	7	.500	.148	.172	.16	.15	.14	.135	.130	.125
42F581	69001-8348	5000	.80	7	.828	.171	3/16	.36	.28	.216	.174	.155	.151
42F567	69001-1805	4750	.6	......	.468	.364	.416	.46	.38	.339	.314	.278	.273

in. dia. by .109 in. deep in terminal; no middle turret on terminal. A. .062D thru hole in terminal. B. Silver plated terminal; Hole .042 D. Electro tin plated terminal.

CONNECTORS

Single pin, compression mounted, Teflon TFE insulated connectors. Terminals are brass, silver plated and gold flashed. Flashover (short time, sea level) 4500 VRMS. Cap. (freq. 1000KC) .5 to .9 uuf depending on deck. Plug is .691" long, socket is .510". Their mounting diameter is .199". Shpg. wt. 3 oz.
Note color chart below.

PLUGS

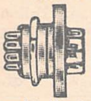
Stk. No.	Type	Dia.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F670	69003-1040	.040	.44	.36	.313	.27	.252	.238
42F671	69003-1050	.050	.44	.36	.313	.27	.252	.238
42F672	69003-1064	.064	.44	.36	.313	.27	.252	.238

SOCKETS

Stk. No.	Type	Dia.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F673	69003-1140	.040	.42	.34	.292	.25	.23	.217
42F675	69003-1164	.064	.42	.34	.292	.25	.23	.217

Note: Available in various colors. Refer to color chart below for listings.

MINIATURE 9-PIN TUBE BASE TIP



Saddle (Female)—Brass, nickel plated. Contacts (Female)—Beryllium copper. Terminal pins (Male)—Brass, silver plated and gold flashed. Guide Pin (Male) — Brass, cadmium plated.. Insul. — Teflon FEP, Kel-F.

MALE

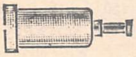
Stk. No.	Type No.	Insulator Material	Mtg. Ctr.	Dia.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F686	69003-4391	Kel-F	1.000	.730	.78	.75	.732	.724	.697	.689

FEMALE

Stk. No.	Type	Base Material	1-49	50-99	100-249	250-499	500-999	1000-4999
42F691	69003-4792	Brass, nickel plated	.98	.97	.949	.906	.886	.873

TEST POINTS

STANDARD TEST POINTS



Insulator Material — Teflon TFE. Mounting Hole—.173±.002 dia. Flashover—3000 VRMS. Cap. (Freq. 1000KC) 1.5MMFD (1/16" deck) 1.55 MMFD (3/16" deck). Torque—7 in. oz. (1/16" deck) 14 in. oz. (3/16" deck). Pull—25 lbs.

Stk. No.	Type	Contact Material	1-49	50-99	100-249	250-499	500-999	1000-4999
42F680	69003-1184	Brass, silver plated and gold flashed	.39	.31	.252	.210	.191	.177
42F679	69003-1183	Beryllium copper, silver plated & gold flashed	.32	.29	.26	.258	.242	.216

NOTE: Available in various colors. Refer to color chart below.

HIGH VOLTAGE TEST POINTS

Insulator Material—Teflon TFE. Mounting Hole—.173 ± .002 dia. Flashover—5000 VRMS. Capacitance (Freq. 1000KC)—1.5 MMFD (1/16" deck) 1.55 MMFD (3/16" deck). Torque—7 in. oz. (1/16" deck) 14 in. oz. (3/16" deck). Pull—25 lbs.

Stk. No.	Type	Contact Material	1-49	50-99	100-249	250-499	500-999	1000-4999
42F681	69003-1185	Brass, silver plated and gold flashed	.45	.37	.322	.280	.261	.247
42F683	69003-1190	Beryllium copper, silver plated & gold flashed	.44	.36	.311	.268	.250	.236

NOTE: Available in various colors. Refer to color chart below.

MINIATURE TEST POINTS

Insulator Material—Teflon TFE. Mounting hole—.163 ± .002 dia. Flashover—3000 VRMS. Capacitance—.5 MMFD (1/16" deck) .9 MMFD (3/16" deck). Torque—7 in. oz. (1/16" deck). 14 in. oz. (3/16" deck). Pull 25 lbs. (12 lbs. from 1/16" deck).

Stk. No.	Type	Contact Material	1-49	50-99	100-249	250-499	500-999	1000-4999
42F682	69003-1186	Beryllium copper, electro tin plate	.49	.42	.379	.336	.318	.304

NOTE: Available in various colors. Refer to color chart below.

PRINTED CIRCUIT TEST POINTS

Bracket material—Brass, silver plated and gold flashed. Contact material—Beryllium copper, silver plated and gold flashed. Flashover—3000 VRMS. Capacitance 25 MMFD.

Stk. No.	Type	Length	1-49	50-99	100-249	250-499	500-999	1000-4999
42F684	69003-1191	.400	.73	.62	.506	.465	.446	.432

NOTE: Available in various colors. Refer to color chart below.

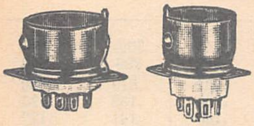
COLOR CHART

When ordering specify the color of insulator by adding the color code number after the stock number. The colors and their numbers are:

Add to Stock No.	Color	Mfr. Color Type	Add to Stock No.	Color	Mfr. Color Type
1	White	69003	6	Yellow	69029
2	Red	69026	7	Orange	69025
3	Green	69028	8	Brown	69023
4	Blue	69021	9	Grey	69024
5	Violet	69027	10	Black	69022

GARLOCK COMPONENTS AND SOCKETS

CHEMELEC JAN SPEC.
SHIELD BASE MIN. SOCKETS



Contacts are beryllium copper and silver plated. Contacts exceed JAN specifications for tube retention, tab flexing and contact resistance. Plating meets JAN specifications. Brass nickel plated except (*) steel cadium plated.

7-PIN SOCKETS

Stock No.	Type	1-49	50-99	100-249	250-499	500-999	1000-4999
42F706	69005-7717	.99	.99	.786	.744	.725	.72
42F695	69005-37177	.75	.70	.675	.633	.615	.61

9-PIN SOCKETS

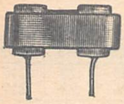
Stock No.	Type	1-49	50-99	100-249	250-499	500-999	1000-4999
42F709	69005-7013	1.11	1.01	.904	.862	.844	.829
42F710	69005-7917	1.12	1.03	.916	.874	.855	.85
42F699	69005-3817	.82	.78	.76	.72	.70	.695

CHEMELEC JAN-SPEC 9-IN BOTTOM MTG. MIN. SOCKETS

Series 69005. Cad. plated steel or nickel plated bras base. Contacts are silver plated beryllium copper. Requires ¾"D. hole. *Has ground lugs. Insulation is Teflon FEP. Wt. approx. 3 oz.

Stock No.	Type	Base	1-49	50-99	100-249	250-499	500-999	1M-
42F713	*7933	Steel	1.06	.97	.857	.814	.796	4999
42F714	7943	Steel	1.06	.97	.857	.814	.796	.781
42F715	7947	Brass	1.07	.98	.867	.824	.805	.79

CHEMELEC TEFLON CRYSTAL SOCKETS



Insulated with DuPont Teflon TFE, this crystal socket is designed for application where low loss, frequency stability, mech. vibration and shock are problems. Mtg. hole is ⅛"D., ⅛" deep. Lug centers spaced .486", ins. thickness is ⅜" max., ½" min. Length, ⅞", width, ⅜". For .05" pin dia. Contacts are silver plated beryllium copper. Weight, 2 oz.

Stock No.	Type	1-49	50-99	100-249	250-499	500-999	1000-4999
42F716	69007-4410	.75	.61	.528	.462	.442	.428

CHEMELEC TEFLON SUB-MIN. TUBE LEAD INSULATOR

Molded from Teflon TFE for heat res: up to 500° F., zero moisture absorption and loss factor less than .0005. 8 .024" holes spaced 40° on .234" dia. circle. Total dia., .392", .062" thick. Wt., 1 oz.

Stock No.	Type	1-49	50-99	100-249	250-499	500-999	1000-4999
42F733	69011-1053	.27	.20	.121	.0788	.0672	.0621

CHEMELEC TRANSISTOR LEAD INSULATORS

Series 69011. Made from low-loss, heat-resistant DuPont TFE Teflon. 69011-1055 is circular (.392"D.) with 4 .024" holes spaced 90° on .2" circle, .062" thick. Others are oblong, ⅛" wide times lengths listed below. Hole dia. .024". Shipping weight, approximately 1 oz. average.

Stock No.	Type	Holes	Length (in.)	1-49	50-99	100-249	250-499	500-999	1M-4999
42F734	1055	4	......	.27	.19	.0958	.0704	.0612	.0584
42F730	0425	5	.325	.37	.28	.167	.1248	.106	.0917
42F731	0427	7	.422	.39	.30	.188	.146	.127	.113
42F732	0435	5	.375	.31	.24	.166	.123	.105	.0914

CHEMELEC JAN-SPEC 9-PIN SADDLE BASE MIN. SOCKETS

Series 69005. Nickel plated brass base. Contacts are silver plated beryllium copper. Insulation is Teflon FEP. Requires ¾"D. hole. Wt., 3 oz.

Stock No.	Type	Base	1-49	50-99	100-249	250-499	500-999	1M-4999
42F712	7927	Brass	1.08	.97	.879	.835	.816	.812

CHEMELEC JAN-SPEC 7-PIN SADDLE BASE MIN. SOCKETS

Series 69005. Cad. plated steel or nickel plated brass base. Contacts are silver plated beryllium copper. Insulation is Teflon FEP. Requires ⅝"D. hole. Wt., 3 oz.

Stock No.	Type	Base	1-49	50-99	100-249	250-499	500-999	1M-4999
42F707	7723	Steel	.89	.81	.749	.706	.686	.674
42F708	7727	Brass	.95	.86	.749	.706	.688	.684

CHEMELEC TEFLON GROMMETS

Series 69009. Made from tough DuPont Teflon; totally non-absorbent, have high dielectric strength, and are useful from —110°F. to +500°F. Completely non-inflammable and highly weather-resistant, have a tensile strength of 2500-3500 PSI. All are 3/16" high with 1/16" notch except *¼" high with ⅛" notch. Nominal weight, 1 oz.

Stock No.	Type	I.D. (in.)	O.D. (in.)	1-49	50-99	100-249	250-499	500-999	1K-4999
42F717	0034	¼	½	1.08	.99	.786	.555	.513	.452
42F718	0035	5/16	9/16	1.09	1.00	.797	.567	.525	.464
42F719	0036	⅜	⅝	1.09	1.00	.797	.567	.525	.464
42F720	0038	½	¾	1.11	1.01	.809	.578	.536	.475
42F726	0048	* ½	¾	1.15	1.06	.856	.626	.584	.523
42F727	0410	* ⅝	⅞	1.18	1.17	.88	.65	.607	.546
42F729	0422	*1⅜	1⅝	1.52	1.43	1.22	.99	.948	.886

CHEMELEC TEFLON TFE SUB-MIN. TUBE SOCKETS

Compression mtg., with silver-plated, gold-flashed brass conts. .368"D. mtg. hole. 8 .018" conts. spaced 40° on .234"D. circle. Pin-to-pin cap., .6 mmf, .7 mmf to chassis. Wt., 2 oz.

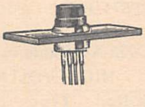
Stock No.	Type	1-49	50-99	100-249	250-499	500-999	1000-4999
42F738	69012-0428	1.04	.94	.832	.790	.772	.758

CHEMELEC SUB-MIN. TUBE AND TRANSISTOR SOCKETS

Series 69013. Insulated with DuPont Teflon TFE. Mounts in hole .160" wide times lengths listed below. Silver-plated gold-flashed brass contacts. Pin-to-pin cap., 6 mmf, 5 mmf to chassis. Ins. thickness, .268". Shpg. wt., 2 oz.

Stock No.	Type	Contaots	Mtg. Hole L.	1-49	50-99	100-249	250-499	500-999	1M-4999
42F739	0423	3	.255"	.87	.78	.673	.631	.612	.598
42F740	0424	4	.305"	.96	.87	.757	.716	.696	.682
42F741	0425	5	.355"	1.05	.95	.843	.80	.78	.766
42F742	0426	6	.405"	1.22	1.13	1.021	.978	.96	.945
42F743	0427	7	.457"	1.39	1.30	1.193	1.150	1.131	1.119

CHEMELEC COMPRESSION MOUNTED TRANSISTOR SOCKETS



Series 69012. Molded of Teflon TFE, with silver-plated, gold-flashed brass contacts. Withstands 50 lbs. min. pull in 1/16" panel. Mts. in .36"D. hole, contacts are spaced 90° on .2" circle except *.1" circle. Insulator thickness is .268", total length is 7/16". Pin-to-pin cap., .4 mmf except † .8 mmf, .5 mmf pin-to-chassis cap. Shpg. wt. 2 oz.

Stock No.	Type	Pins	1-49	50-99	100-249	250-499	500-999	1000-4999
42F735	0414	†*4	.79	.70	.589	.546	.528	.514
42F736	0423	3	.75	.65	.542	.50	.481	.467
42F737	0424	4	.66	.60	.577	.54	.52	.51

LET NEWARK SUPPLY YOUR INDUSTRIAL ELECTRONIC NEEDS, WHETHER LARGE OR SMALL.

7 WAREHOUSES FOR IMMEDIATE DELIVERY.

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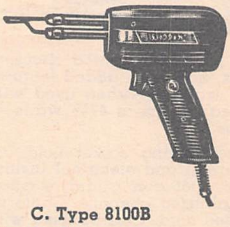
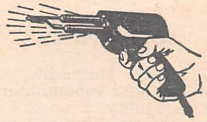
GRAND RAPIDS, MICHIGAN • NEW YORK, NEW YORK • CINCINNATI, OHIO
DENVER, COLORADO

SOLDERING GUNS AND KITS

A. Type 8200K

B. Type 8250AK.


C. Type 8100B


D. Type D-550
with built-in spotlight

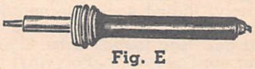


Fig. E

DUAL HEAT SOLDERING GUN KIT

Fig. A. Type 8200K. Exclusive dual heat feature saves time, gives greater convenience, and increases tip life. Triggermatic control switches instantly to 140 or 100 watts. Copper in tip gives superior heat transfer and soldering efficiency. Shpg. wt. 2½ lbs.

33F158. NET.. **5.83**
In lots of three, Each.. 5.30
In lots of twelve, Each.. 5.04

CONTROLLED HEAT SOLDERING IRONS

Fig. E. Irons have built-in MAGNASTAT temperature controls which automatically maintain the correct soldering temp. Lightweight. Stainless steel. Balanced. All irons listed without cords and tips. See listing below for 2 or 3 wire cords and tips of your choice.

Model TC552. 55 watt iron only. 5½ oz.
33F380. 1-5, Ea...5.32
6-23, Ea...........4.83 **24 up, Ea.**..........4.34
Model TC602. 75 watt iron only. 6½ oz.
33F381. 1-5, Ea...5.52
6-23, Ea...........5.00 **24 up, Ea.**..........4.50
Model TC1202. 120 Watt iron only. 8½ oz.
33F382. 1-5, Ea...6.25
6-23, Ea...........5.67 **24 up, Ea.**..........5.10

CORDS FOR ABOVE IRONS

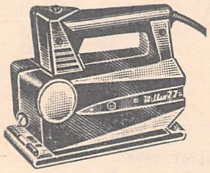
CS40. Two wire cord set. For use with TC552, TC602.
33F383. NET Ea... .69

CS50. Three wire cord set. For use with TC552, TC602.
33F384. NET ea...1.47

CS30. Three wire cord set. For use with TC1202 and older models TC40, TC60, TC120.
33F385. NET ea...1.47

TIPS FOR ABOVE IRONS

Stock No.	Type	1-94 Each	95-299 Each	300 up Each
33F386	5-DIN-700° 3/16" screwdriver tip for TC552	.56	.50	.45
33F387	5-CIN-700° 1/8" screwdriver tip for TC552	.56	.50	.45
33F388	6-EIN-700° 1/4" screwdriver tip for TC602	1.12	1.00	.90
33F390	12-F4N-700° 3/8" chisel tip for TC1202	1.49	1.34	1.20



HI-POWERED SANDER

Model 77. Sander has 26 square inches of sanding area. In addition, the housing is recessed for going into all corner surfaces. Features include a 4.8 amp reciprocation motor giving the unit 14,400 strokes per minute, three wire cord enabling wet surface sanding, straight line action providing a smooth finish, motor lubrication for life, interchangeable left or right handle for easy operation and a full 5/32 inch stroke. Housed in black plastic case. Shpg. wt., 6½ lbs.

33F159. NET.. **14.96**
Lots of 3, EA...13.30

POPULAR SOLDERING KIT

Type 8250AK. Complete kit. Hundreds of homecraft and hobby jobs. Kit includes: 275-watt, instant heat soldering gun with dual spotlights, instant on-off trigger switch, in rugged plastic housing; ample supply of solder; 3-gun tips, long-life soldering tip for working tight, difficult places; smoothing-tip for heat sealing, and mending plastic; cutting-tip for cutting plastic tile, removing window putty; wrench for changing tips; plastic carrying case with How-to-do-it booklet. 5 lbs.

33F132. NET.. **10.99**
In Lots of 3, Each..9.97
In lots of 12, Each..9.48

Type 8250A. Soldering Gun only. Same instant-heat, 275-watt soldering iron in 145/210 watts. Wt., 3 lbs.

33F134. NET.. **9.52**
In Lots of 3, Each..8.64
In Lots of 12, Each..8.20

"JUNIOR" SOLDERING GUN

Fig. C. Type 8100B. Value leader in the soldering field. Touch the trigger and soldering tip heats instantly — spotlights illuminate work and eliminate shadows. Does quick accurate soldering. Shipping wt., 2½ lbs.

33F148. NET.. **4.73**
In lots of 3, Each..4.51
In lots of 12, Each..4.29

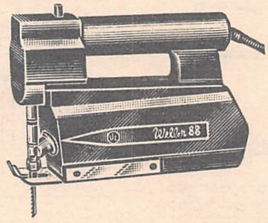
PROFESSIONAL SOLDERING GUNS

Fig. D. Guns give instant heat with no waste. Dual heat. Switch from high to low. Exclusive tip-grip. Eliminates resistance. Dual spotlights on both models. Good for dark or tight places. High-impact housing. Perfect balance. Replaceable tips. **Type D-550. Heavy Duty Model.** Dual heat. 240/325 watts. 3½ lbs.

33F129. NET.. **11.71**
In Lots of 3, Each..10.75
In Lots of 12, Each..10.16

Type D-440. Standard Model. Dual heat. 145/210 watts. 3¾ lbs.

33F131. NET.. **9.52**
In Lots of 3, Each..8.64
In Lots of 12, Each..8.20



● *NEW.* PORTABLE SABRE SAW

Model 88. Ultra high speed portable sabre saw cuts through wood (up to 1" finished stock), plastic, and composition board. Excellent for finishing and cabinet work. powerful 4.8 amp motor never needs lubrication. Engineered to retract blade on down stroke to free blade of friction and chips. Makes its own starting hole and is easily handled and does not buck. Includes 8 foot cord, 4 wood cutting blades and blade wrench. Power supply: 120 volt AC, 60 cycle. Grey. Shipping weight, 7 lbs.

33F157. NET.. **17.20**
Lots of 3, EA...15.30

GUN REPLACEMENT TIPS

No. 8125. Plated tip for models 8200, 8100B.
33F149. Net, per pkg. of 2.. **.35**

No. 8125N. Contains one No. 8125 tip and two tip nut. **33F139. NET**.. **.35**

No. 7135. Copper tip for models D-440, 8100, and older models WS-100, WD-135, S-400.
33F124. NET, per pkg. of 2.. **.25**

No. 7135N. Contains one No. 7135 tip and two tip nuts. **33F140. NET**.. **.25**

No. 7250. Copper tip for models D-550, 8250A, and older models WS-200, WD-250, S-500.
33F125. NET, per pkg. of 2.. **.35**

No. 7250N. Contains one No. 7250 tip and two tip nuts. **33F141. NET**.. **.35**

No. 7550. Plated tip for models D-550, 8250A, and older models WS-200, WD-250, S-500.
33F393. NET, per pkg. of 2.. **.50**

No. 6110. Cutting tip for models D-440, 8100, 8200, 8100B, and older models WS-100, WD-135, S-400.
33F135. NET, each (with tip nuts)........ **.35**

No. 6120. Smoothing tip for models D-440, 8100, 8200, 8100B, and older models WS-100, WD-135, S-400.
33F136. NET, each (with tip nuts)........ **.35**

No. 6130. Cutting tip for models D-550, 8250A, and older models WS-200, WD-250, S-500.
33F137. NET, each (with tip nuts)........ **.35**

No. 6140. Smoothing tip for models D-550, 8250A, and older models WS-200, WD-250, S-500.
33F138. NET, each (with tip nuts)........ **.35**

No. 7300. Copper tip for older models S-107, D-207.
33F127. NET, per pkg. of 2.. **.25**

GUN REPLACEMENT PARTS

No. 7323. Switch for single-heat models.
33F162. NET, each..1.22

No. 7324. Switch for all dual-heat models.
33F163. NET, each..1.37

33F392. No. 7409 cord set (all models) **.98**

No. 725R8100B. Right housing for model 8100B.
33F394. NET, each.. **.69**

No. 726L8100B. Left housing for model 8100B.
33F395. NET, each.. **.69**

No. 725R8200. Right housing for model 8200.
33F396. NET, each.. **.69**

No. 726L8200. Left housing for model 8200.
33F397. NET, each.. **.69**

No. 725R825A. Right housing for model 8250A.
33F398. NET, each..1.10

No. 726L825A. Left housing for model 8250A.
33F399. NET, each..1.10

No. 725R440. Right housing for model D-440.
33F166. NET, each..1.10

No. 726L440. Left housing for model D-440.
33F167. NET, each..1.10

No. 725R550. Right housing for model D-550.
33F168. NET, each..1.10

No. 726L550. Left housing for model D-550.
33F169. NET, each..1.10

No. 725R8100. Right housing for model 8100.
33F172. NET, each.. **.69**

No. 726L8100. Left housing for model 8100.
33F173. NET, each.. **.69**

Ungar® SOLDERING EQUIPMENT

NEWARK CARRIES THE LATEST EQUIPMENT

"STANDARD LINE" EQUIPMENT

776 UNGAR SOLDER PENCIL

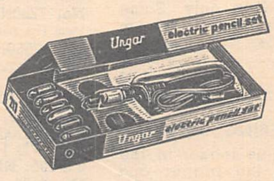
The famous "featherlite" soldering pencil for printed circuitry, miniature and subminiature systems, now with added features and versatility. Economy with low wattage—when used with Super Hi-heat Series of interchangeable tips at 47½ watts—it can do everything a 150 w. iron does.

Type 776 Handle. Many advantages! Spring socket holds tip firmly. Plated socket terminals. Thermal and electrical insulation. Stainless steel heat deflector. Octagon guard washer. Larger "soft touch" grip. Thermo-stabilized phenolic. Conforming cord protector. Polyvinyl insulated cord. Can be used with the Thread-in heating units and the inexpensive Elkalloy tiplets, or with standard tips alone. Length 7". U.L. approved. Shipping weight, 5 ounces.
33F071. 1 to 9, NET EACH **1.18**
10 to 49, Each .... **.98** **50 and up, Each** .... **.90**

General Solder Pencil Set. Type 776 handle and type 536 tip. 23½ watts. For general soldering. Shpg. wt., 6 oz.
33F070. 1 to 9, NET EACH **2.16**
10 to 49, Each .... **1.79** **50 and up, Each** **1.65**

Production Solder Pencil Set. Consists of type 776 handle and type 1236 tip. 37½-watt unit for production-line industrial soldering. Shipping weight, 8 oz.
33F069. 1 to 9, NET EACH **2.35**
10 to 49, Each .... **1.95** **50 and up, Each** **1.80**

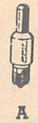
ELECTRIC PENCIL AND SOLDERING SET



No. 217. Electric Pencil and Soldering Set. Kit for home and hobby workshops. Integrated Electric Pencil; 5 interchangeable thread-on tips for wood, leather, and cork burning; foil writing, light soldering, plastic repair, and forming and tile cutting. Plus emery paper and metallic embossing foil. 115 V. AC-DC. 1 lb.
33F096. 1 to 5, NET EACH **2.65**
6 to 11, Each .... **2.40** **12 and up, Each** **2.10**

THREAD-INS AND TIPLETS®

Type 535 thread-in is 23½-watt general purpose . . . 1235 is 37½-watt high-speed production unit. All Elkalloy and *iron-plated tiplets are interchangeable in these thread-in heating units!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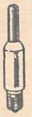
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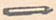
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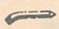
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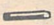
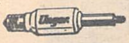

E

Stk. No.	Fig.	Type	Description	1-9 Each	10-49 Each	50-up Each
33F081	A	535	Thread-in	.98	.81	.75
33F085	B	1235	Thread-in	1.18	.98	.90
33F082	C	331	Pencil	16c	13c	12c
33F083	D	332	Offset			
33F084	E	333	Chisel			
33F685	E	PL340	Micro*	47c	39c	36c
33F093	C	PL331	Pencil*			
33F094	D	PL332	Offset*			
33F095	E	PL333	Chisel*			
33F686		PL338	Needle*			

*Type PL special iron-plated hi-heat tiplets for use with all threaded-in hi-heat elements.

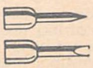
HI-SPEED HEATING UNITS



Threaded heating units achieve four times heat transfer efficiency because of greater heat path and better compatibility. Thread-end design prevents solder from running back into threads and reduces thread oxidation. Fast reliable connections are assured. Meets top requirements for faster repeat production line soldering.

Stk. No.	Type	Description	1-9 Each	10-49 Each	50-up Each
33F677	4037	Thread-on	2.35	1.95	1.80
33F678	1237	Thread-on	1.18	.98	.90

THREAD-ON MINI-TIPS®



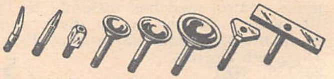
Mini-Tips are designed to take abuse. Won't break off at tips. Tests show 750-800 degree and 850-900 degree temperatures are maintained, with 100% increase in recovery rate. *Iron clad, silver plated.

Stk. No.	Type	Description	Size	1-9 Each	10-49 Each	50-up Each
33F679	PL111*	Pencil	¾x⅛"	.59	.49	.45
33F680	111	Pencil	¾x⅛"	.20	.17	.15
33F681	PL113*	Chisel	¾x⅛"	.59	.49	.45
33F682	113	Chisel	¾x⅛"	.20	.17	.15

DE-SOLDERING KIT REPAIRS PRINTED CIRCUITS

Type 270. De-Soldering Kit. Repairs printed circuitry safely. 3 circular desoldering tiplets of 1", ¾", ⅝" dia. to remove components of like dia. and 9-, 7-, and 5-pin tube sockets. Rectangular desoldering tiplet, 1½x ⅜", to remove resistors, capacitors, etc., within same size area. Slotted 1x3/16" tiplet to melt and straighten tube tabs, IF tabs, and other connections folded and soldered to printed circuit boards; slot opening, 0.040". Super Hi-Heat Unit, 47½ Watts, delivers 600° to 850°F, depending on de-soldering tiplet used. Handle has extra-flexible vinyl-insulated cord, standard threaded socket. Shipping weight 1 pound.
33F097. 1 to 5, NET EACH **5.24**
6 to 11, Each .... **4.75** **12 and up, Each** **4.17**

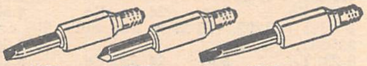
DESOLDERING TIPS



These special shaped Ungar tiplets will remove components 70% faster than ordinary soldering iron tips . . . by melting solder on all terminals of a component simultaneously. Avoid lug breaking, wire shorting, and printed board rupturing.

Stk. No.	Type	Style	1-9 Each	10-49 Each	50-up Each
33F632	862	offset slotted	.59	.49	.45
33F633	863	cube			
33F634	856	cup ⅝"			
33F635	855	cup ¾"			
33F636	854	cup 1"			
33F637	861	triangle			
33F638	858	bar			
33F098	857	slotted			

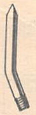
SUPER HI-HEAT TIPS & HEATING UNITS



These soldering iron tips are 47½-watt heating units that will easily do the job of any 150-watt iron. The tips are of special iron plated over copper. Exclusive triple-plating.

Stk. No.	Type	Heat	Desc.	1-9 Each	10-49 Each	50-up Each
33F086	4033	900°F	Long chisel	2.35	1.95	1.80
33F087	4036	1000°F	Pyramid			
33F088	4039	1000°F	Chisel			
33F089	4035	800-850°F	Thread-in heating unit for use with 300 Ser. Tiplets ⅛" Tap. 6-32 Thr.			
33F029	4045	800-850°F	Thread-in heating unit for use with 800 Ser. Tiplets 3/16" Tap, 10-24 Thr.			

EXTRA-LONG PLATED TIPS

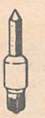


800 Series Thread-in tiplets 3/16" O.D. Iron-clad tiplets last 10 times longer because they resist destructive action of solder, require less maintenance and are easier to tin. All can be used with #4045 heating unit. *Iron clad, silver plated.

Stk. No.	Type	Length	1-9 Each	10-49 Each	50-up Each
33F099	PL834*	1¾"	.78	.65	.60
33F641	PL833*	1¾"	.78	.65	.60
33F642	PL823*	1"	.47	.39	.36
33F643	823	1"	.16	.13	.12
33F644	PL824*	1"	.47	.39	.36
33F645	824	1"	.16	.13	.12

HI-HEAT REPLACEMENT TIPS

Have heavy-duty 37½-watt element for high-speed production soldering. Consist of element and tip as in standard series above. For 776 handle.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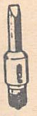
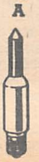

B

Stk. No.	Fig.	Type	Description	1-9 Each	10-49 Each	50-up Each
33F078	A	1236	Pyramid	1.18	.98	.90
33F079	B	1239	Chisel			
33F646		1233	Long chisel			

REPLACEMENT TIPS

Standard Tips. Get up to full 600 degrees in 90 seconds. Rated at 23½ watts. Complete heating element and tip for use with 776 handle.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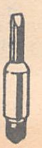
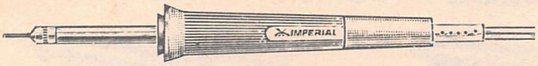

D

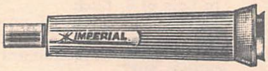
Stk. No.	Fig.	Type	Description	1-9 Each	10-49 Each	50-up Each
33F072	C	536	Pyramid	.98	.81	.75
33F076	D	539	Chisel			
33F647		533	Long chisel			

SOLDERING EQUIPMENT Ungar®

INPERIAL® LINE



Ungar's revolutionary Imperial soldering iron has been engineered to get jobs done faster, better, more economically. Meets every demand for a cool, light-weight easy-handling iron. Precise tip temperatures, complete versatility and superior handling ease save valuable production time every day. The Imperial provides years of dependable, trouble free operation, built to take years of shop punishment. All components are interchangeable with the Ungar Imperial line, they are NOT interchangeable with the Standard line. 115 volts AC-DC. Shpg. wt. (without tip) 6 oz.



IMPERIAL® HANDLES

Slim, functionally-designed PERMA-COOL IMPERIAL handle. Features double cushion of air, combined with five heat transition surfaces, evenly dissipates heat, keeping the handle cool and comfortable. Finely ribbed for positive, precision handling with fingertip ease . . . built to take years of shop punishment. Handles are available in three select pastel colors: beige, ivory and turquoise. Handle-Lexan high strength polycarbonate resin with die cast aluminum heat sink. Diameter at grip—0.8". Length 4.7" (including heat sink). Weight 1 oz. Rated at 115 volts AC-DC.

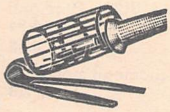
Stock No.	Type	Color	1-9	10-99	100-up
32F900	6100-1	Turquoise	1.28	1.07	.96
32F901	6100-2	Beige			
32F902	6100-3	Ivory			

IMPERIAL PLUG AND CORD SETS

Imeprial interchangeable plug and cord set. Connection is made quickly with positive slip-on action. Unique molded-on female connector. All cords are 6' length. Polyvinyl chloride insulation on wire and plugs. Three color matching. Wt. 2.75 oz.

Stock No.	Type	Description	1-9	10-99	100-up
32F903	6102-1	2-wire, Std., Turquoise	1.28	1.07	.96
32F904	6102-2	2-wire, Std., Beige			
32F905	6102-3	2-wire, Std., Ivory			
32F906	6103-1	3-wire, Grd., Turquoise	2.08	1.73	1.56
32F907	6103-2	3-wire, Grd., Beige			
32F908	6103-3	3-wire, Grd., Ivory			
32F909	6104-1	3-wire Strd. Ends, Trq.	1.92	1.60	1.44
32F910	6104-2	3-wire Strd. Ends, Beige			
32F911	6104-3	3-wire Strd. Ends, Ivory			

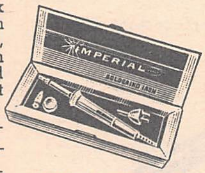
IMPERIAL® "SAFETY-GUARD" HOLDER



Type 6800. Specially designed for the IMPERIAL . . . avoids handle damage while protecting operators against hot tip burns. Attaches quickly to the top or underside of the work bench. Black with special gold cage guard.

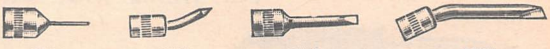
32F957. 1-9............**1.60** **10-99**..................**1.33**
100-up **1.20**

● *NEW* IMPERIAL SOLDERING KIT



Type 6060. Consists of #6100 Turquoise handle listed above; 2-wire cord set, six feet in length; 40 watt heat cartridge with a 750-950°F. heat range; #6319 iron clad, gold plated chisel tip; #6473 Tellurium Copper, long taper chisel tip and Imperial "Heat Seal" that insures maximum heat transfer. Shipping weight, 1 lb.

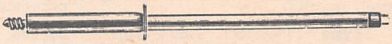
Stk. No.	Type	1-5	6-11	12-up
32F970	6060	4.99	4.81	4.66



MINI-TIP THREAD-ON SOLDERING TIPS

Imperial Mini-Tip thread-on soldering tips. Designed for multi-leads, joints and microminiature connections. Material: (*)—Iron Clad, Gold Plated (24 kt.); (**)—Tellurium Copper; (†)—Armco Iron, Silver Plated; (††)—Mallory/3 Copper. Av. shpg. wt., 3 oz.

Stock No.	Type	Shape	Size	1-9	10-99	100-up
32F915	*6304	Mic.-chisel	3⁄64x ½"	.80	.67	.60
32F916	*6305	Micro-spade	3⁄64x ½"	.80	.67	.60
32F917	**6312	Pencil	⅛x ¾"	.28	.23	.21
32F918	*6313	Pencil	⅛x ¾"	.80	.67	.60
32F919	**6315	Pencil Offset	⅛x ¾"	.28	.23	.21
32F920	*6316	Pencil Offset	⅛x ¾"	.80	.67	.60
32F921	**6318	Long Taper Chis.	⅛x ¾"	.28	.23	.21
32F922	*6319	Long Taper Chis.	⅛x ¾"	.80	.67	.60
32F923	**6324	Long Taper Pyr.	⅛x ¾"	.28	.23	.21
32F924	*6325	Long Taper Pyr.	⅛x ¾"	.80	.67	.60
32F925	**6330	Screwdriver	⅛x ¾"	.28	.23	.21
32F926	*6331	Screwdriver	⅛x ¾"	.80	.67	.60
32F927	*6333	Needle	⅛x ¾"	.80	.67	.60
32F928	**6335	Spade	⅛x ¾"	.28	.23	.21
32F929	*6336	Spade	⅛x ¾"	.80	.67	.60
32F930	**6365	Long Taper Chis.	3⁄16x ¾"	.28	.23	.21
32F931	*6366	Long Taper Chis.	3⁄16x ¾"	1.00	.83	.75
32F932	**6368	Long Taper Pyr.	3⁄16x ¾"	.28	.23	.21
32F933	*6369	Long Taper Pyr.	3⁄16x ¾"	1.00	.83	.75
32F934	**6371	Screwdriver	3⁄16x ¾"	.28	.23	.21
32F935	*6372	Screwdriver	3⁄16x ¾"	1.00	.83	.75
32F936	††6373	Slotted	3⁄16x ¾"	.80	.67	.60
32F937	**6381	Long Taper	3⁄16x1½"	.28	.23	.21
32F938	*6382	Long Taper	3⁄16x1½"	1.00	.83	.75
32F939	**6383	Long Taper Offset	3⁄16x1½"	.28	.23	.21
32F940	*6384	Long Taper Offset	3⁄16x1½"	1.00	.83	.75
32F941	**6389	Screwdriver	3⁄16x1½"	.28	.23	.21
32F942	*6390	Screwdriver	3⁄16x1½"	1.00	.83	.75
32F943	**6403	Short Taper	¼x ⅜"	.28	.23	.21
32F944	†6406	Short Taper	¼x ⅜"	.80	.67	.60
32F945	*6407	Short Taper	¼x ⅜"	.28	.23	.21
32F946	†6410	Short Taper	¼x ⅜"	.80	.67	.60
32F947	**6423	Long Taper	¼x ¾"	.28	.23	.21
32F948	*6424	Long Taper	¼x ¾"	1.00	.83	.75
32F949	**6427	Long Taper Pyr.	¼x ¾"	.28	.23	.21
32F950	*6428	Long Taper Pyr.	¼x ¾"	1.00	.83	.75
32F951	**6473	Long Taper Chis.	⅜x ¾"	.28	.23	.21
32F952	*6474	Long Taper Chis.	⅜x ¾"	1.00	.83	.75
32F953	†6476	Long Taper Chis.	⅜x ¾"	.80	.67	.60
32F954	**6477	Long Taper Pyr.	⅜x ¾"	.28	.23	.21
32F955	*6478	Long Taper Pyr.	⅜x ¾"	1.00	.83	.75
32F956	†6480	Long Taper Pyr.	⅜x ¾"	.80	.67	.60
32F959	*6481	Tap. Screwdriver	¾x3⁄32"	.80	.67	.60
32F960	*6482	Micro-Spade	3⁄32x1 1⁄16"	.80	.67	.60



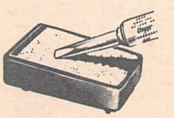
IMPERIAL® LONG-LIFE HEAT CARTRIDGES

Interchangeable stainless steel, double insulated cartridges with spring steel terminals. Heating element located at the tip end of the cartridge. This feature assures rapid heat recovery, less heat to the handle and quick tip changes when necessary. Each cartridge is color-keyed for quick visual identification. Size: 0.363" Dia., 7.5" Length. Weight, 1.1 oz.

Stock No.	Type	Watt	Color-key	Heat Range	1-9	10-99	100-up
32F912	6200	40	Red Band	750-950F	3.12	2.60	2.34
32F913	6201	30	Blue Band	650-850F			
32F914	6202	25	Green Band	600-800F			

SOLDERING ACCESSORIES

KLEEN-TIP SPONGE, TRAY, AND REFILL



Specially processed Kleen-Tip sponge for removing oxidation and excess solder from tips. Assures proper heat flow and solder wetting may be retarded or prevented. Other materials used for this purpose cause contamination or destroy plating. Package of two specially processed refill sponges packed in protective polyethylene bag. Ready for use.

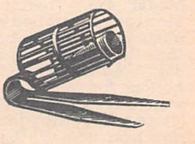
Stock No.	Type	Description	1-9, Ea.	10-49, Ea.	50-up, Ea.
33F683	400	Sponge and tray	.98	.81	.75
33F684	455	2 refill sponges	.39	.33	.30

IMPERIAL® "HEAT SEAL"

Type 6801. Heat seal on threads of heat cartridges and MINI-TIP soldering tips. Insures maximum heat transfer, protects threads, reduces oxidation. Convenient 3 oz. can.

32F958. 1-9.............. **.80** **10-99**.............. **.67** **100-up**.............. **.60**

IRON HOLDER



Type 8000. Protection against painful "hot tip" burns. The operator no longer need worry about brushing against hot iron. Cradles iron safely and securely in one place. Provides greater protection against iron breakage. Can be attached to wall or bench by the use of mounting holes pre-drilled in holder. Shpg. wt., 1 lb.

33F687. 1-9, Ea....**1.57**
10-49, Ea. ....**1.30** **50-up, Ea.** **1.20**

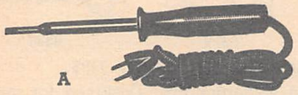
ANTI-SEIZE

Type 8001. A special lubricant designed for use on metals operating at high temperatures. Repeated use on soldering tip heads helps to reduce seizure and resultant breakage of tips and heating units. Guards against tip freezing and protects against corrosion. Therefore, heat transfer is greatly improved. Wt. 4 oz.

33F688. 1-9, NET EACH...**.54**
10 to 49, EACH...**.45**
50 and up, EACH...**.42**

American Beauty SOLDERING EQUIPMENT

FOR HOME SHOP OR INDUSTRIAL APPLICATION

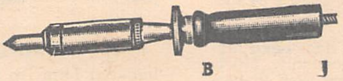


HEAVY DUTY 60-WATT IRON

(Fig. A). Model 3125. A production type iron. It is light in weight and has perfect balance. Safety-flare on handle protects operator. ¼" tip. 12¼" long, 9/16" diameter. For 110-120v AC or DC. Wt., 1 lb.
32F980. NET..........6.17
Lots of 6, Each..........6.03

Replacement Heater Cord. For solder irons, and electrical appliances of all kinds. Cord is two #16-gauge conductors twisted together under one gold and black braid outer covering. U. L. App.

33F020. NET per foot..........**8c**
100 feet. Wt., 4 lbs. 7.10



200-WATT IRON FOR 115 VOLTS

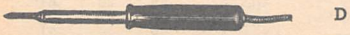
(Fig. B.) **Model 3158.** For medium-heavy factory and production work. 13⅝'' long. With cord, stand and tip. For 110-120 volts, AC-DC. Shpg. wt. 3 lbs.
33F002. NET..........**9.95**
In Lots of 6, Each..........9.72

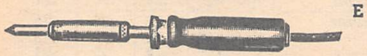
33F007. ⅝'' diamond point tip. Wt., 7 oz.
NET 1.08

Model 3758IP. Iron plated replacement tip.

33F112. NET 1.71
Model 9275. Replacement element.
33F011. NET..........**4.50**

Models 3125, 3128, 3138, 3178 and 3198 are available for 220-240 volt service on special order at no additional charge. Available also with 3-conductor cord, one wire grounded, on special order at 65c extra. All types available with chisel type points on special order.





LIGHT DUTY 60-WATT IRON

(Fig. D.) **Model 3128.** Compact iron for light work. Uses ¼'' tip for working in hard-to-get-at spots. With tip, cord and stand. For 110-120 v., AC-DC. 1 lb.
33F000. NET..........**5.42**
In Lots of 6, Each..........5.29
33F005. ¼'' diamond point tip. Wt., 2 oz.
NET .... .33
Model 9272. Replacement element.
33F009. NET..........**2.80**
Model 3728IP. Iron plated replacement tip.
33F110. NET .... .73

MEDIUM DUTY IRONS

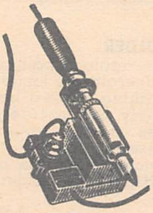
(Fig. E.) **Model 3138.** For work on radio chassis, switchboards, and other electrical uses. 12⅞'' long. ⅜'' diamond point tip. Nickel-plated metal parts. With stand, 6-ft. cord and tip. For 110-120 v., AC-DC. Wt., 2¼ lbs.

Stk. No.	Type	Watts	1-5	6-up
33F001	3138	100	8.30	8.11
32F986	3138	150	8.30	8.11
33F189	3138-X	175	9.60	9.38

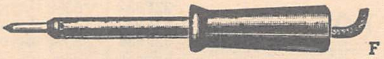
33F006. ⅜'' diamond point tip. Wt., 5 oz.
NET .... .46
Model 9273. 100 watt Replacement element.

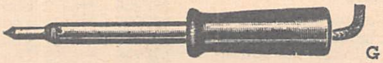
33F010. NET..........**3.20**
Model 3738IP. ⅜" Diamond point Iron plated replacement tip.
33F111. NET .... .86

TEMPERATURE REGULATING STANDS



Model 475. Thermostatically controlled to eliminate overheating. Size 6½ x 5⅝ x 3⅜''. Adjustment on bottom for very low, warm, or full working temperature. Handles any iron from 80-660-watts at any AC voltage to 240. Less iron. Shipping weight, 2½ lbs.
33F014. NET..........**8.23**
Model 476. Same as above except size 7¾x5⅝x3⅝" and input, 30-75 w.
33F154. NET..........**8.23**
Model 475-SG. As Model 475, but equipped with safety guard. Size: 9x5⅝x5". Shpg. wt., 3 lbs.
32F981. NET..........8.92





LIGHTWEIGHT AMERICAN BEAUTY BANTAM SOLDERING IRONS

Small, light, quick heating, with removable tip for TV, radio, etc. Stainless steel case insures against heat loss, keeps handle cool. Compression wound, mica-insulated nickel-chromed heating element. Non-kink, flexible cord. 110v, 30-watt. 9¼'' length. With stand.
(Fig. F.) 33F022. Type 3118.
⅛'' dia. tip. **NET**..........**4.94**
In Lots of 6, Each..........4.82

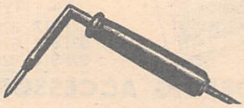
(Fig. G.) 33F023. Type 3120. Diamond point 3/16" dia. tip. **NET**..........4.94
In Lots of 6, Each..........4.82

33F024. Type 3718. ⅛'' diamond point replacement tip. **NET**.......... .18

33F025. Type 3720. 3/16'' diamond point replacement tip. **NET**.......... .22

33F026. Type 9281. Replacement Element for 3118 Iron. **NET**..........2.55

33F027. Type 9280. Replacement Element for 3120 Iron. **NET**..........2.55



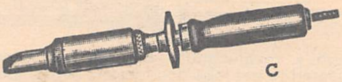
60-WATT OFFSET IRON

Model 3128-A. Similar to Model 3128, but with offset head which permits easy application to operations too difficult for the conventional straight tip. For 110-120 volts, AC-DC. Shpg. wt., 1 lb.
33F016. NET..........**6.17**
In Lots of 6, Each..........6.03

33F005. ¼'' diamond point tip. Wt., 2 oz.
NET .... .33

Model 9272-A. Replacement element.
33F018. NET..........**3.60**

Model 3125-A. ¼" tip. 60 watts. Wt., 12 oz.
32F985. NET..........7.00
In Lots of 6, Each..........6.84

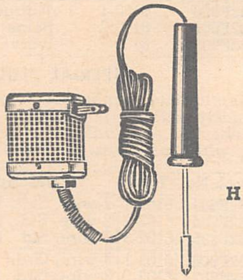


HEAVY DUTY 300-WATT IRON

(Fig. C.) **Model 3178.** For use on still heavier work; for light commutators, service and production work. 14¾'' long. ⅞'' tip. 110-120 v., AC-DC. Wt., 4 lbs.
33F004. NET..........**13.24**
In Lots of 6, Each..........12.93
33F008. ⅞'' diamond point tip. Wt., 1 lb.
NET 3.63
Model 9277. Replacement element.
33F013. NET..........**6.00**
Model 3778IP. Iron plated replacement tip.
33F113. NET..........2.78

EXTRA-HEAVY 550-WATT IRON

(Fig. C.) **Model 3198.** With heavy-duty 1⅛'' tip. Lgth., 15''. Wt., 5¾ lbs.
33F015. NET..........**16.60**
In Lots of 6, Each..........16.21
Model 3798IP. Iron plated replacement tip.
33F114. NET 4.65



AMERICAN BEAUTY IRONS

With its small diameter tip element and minimum bulk and weight, the T-30 series serves the purpose of larger and more cumbersome soldering equipment. Transformer is 110-120 volt (AC only). 12 volt output. 30 watt maximum capacity. The unit includes a seven foot rubber cord., The handle is made of cool, thick hi-impact thermo-setting plastic. Diamond point tip is standard.

Stk. No.	Mfg. No.	Tip Dia.	Wt.	NET	6 or more
33F150	T-30	⅛''	2 lbs.	15.09	14.74
33F151	T-30	¼''	2 lbs.	15.09	14.74

TIP ELEMENTS

33F152	T-3018	⅛''	¾ oz.	2.40	2.35
33F153	T-3025	¼''	¾ oz.	2.40	2.35

(Fig. H.) Type T-12. A transformer type soldering iron for precision soldering. Transformer comes attached to cord ready to plug into wall socket., Seven foot cord. For 110-120 Volt AC operation only. Tip element is pre-tinned ARMCO ingot iron. Handle is of high-impact, thermo-setting material. Has diamond shaped tip. Shipping weight, 1½ lbs.

17-WATT IRONS

Stock No.	Tip Diam.	Lgth.	NET EACH	6 or more
33F191	⅛''	7¾''	13.72	13.40

REPLACEMENT TIP ELEMENTS*

Stock No.	Type	Diam.	Lgth.	NET EACH	12 or more
33F193	T-1216	1/16''	4 7/16''	2.06	2.01
33F194	T-1218	⅛''	4 7/16''	2.06	2.01
33F195	T-1225	¼''	4 3/16''	2.06	2.01

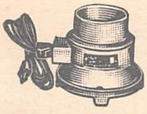
*Shpg. wt., ¾ oz.

ESICO

● *NEW* ESICO SOLDER POTS

ESICO pots are designed for today's production requirements—crucibles are thin lipped for operators convenience, comfort and speed—whatever the need—tinning—stripping—soldering. An Esico pot can do the work efficiently, rapidly and continuously. Adjustable thermostats for selection of uniform operating temperature.

Model 37—600 Watts



Large capacity pot. Inside dimensions: 3½" diameter, with a depth of 1¾" for greater capacity. Maximum temperature: 800 degrees. Solder capacity 5 lbs. Shpg. wt., 6½ lbs.

33F325. NET.................................**14.40**

Model 37T. With thermostat. 650 watts—750 degrees maximum. Shpg. wt., 7½ lbs.

33F326. NET.................................**26.00**

Model 12—200 Watts

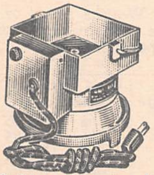
Ideal for dipping small parts. Inside dimensions: 1 9/16" diameter, 1½" depth. Maximum temperature: 750 degrees. Solder capacity ¾ lb. Shpg. wt., 3¾ lbs.

33F321. NET.................................**9.40**

Model 12T. With thermostat. 250 watts—650 degrees maximum. Shpg. wt., 4½ lbs.

33F322. NET.................................**21.00**

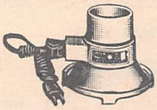
Model 75T—650 Watts



Dipping small panels, etc., which cannot be accommodated in small round pots. Thermostat control. Inside dimensions: 4¾x 4¾ inches, 1¾" in depth. Maximum temperature 700 degrees. Solder capacity 11¾ lbs. Shpg. wt., 9¾ lbs.

33F320. NET.................................**28.00**

Model 36—250 Watts



Dip soldering of bundles of lead wire, etc. Inside dimensions: 2½" diameter, 1¾" depth. Maximum temperature: 750 degrees. Solder capacity 2¼ lbs. Shpg. wt., 4 lbs.

33F323. NET.................................**10.40**

Model 36T. With thermostat. 600 degrees maximum. Shpg. wt., 4¾ lbs.

33F324. NET.................................**22.00**

Model 80T—1200 Watts

Printed circuit panels, etc. Thermostat controlled. Inside dimensions: 6"x12". 1⅞" in depth. Maximum soldering temperature 650 degrees. Solder capacity in pot 45 lbs. Shpg. weight, 28 lbs.

33F327. NET.................................**69.00**

BERNZ-O-MATIC SOLDERING EQUIPMENT

• FUEL CYLINDER • SOLDERING TIP
• UTILITY BURNER TIP • SPARK LIGHTER
• PENCIL FLAME BURNER UNIT
• FLAME SPREADER

CARRY-ALL TORCH KIT

Model TX-25. The handiest item for the traveling tool shop. Powerful flame can be adjusted to any size by using the included heads. Can be used for sweating copper tubing, paint removing, soldering, tile setting, lighting charcoal fires, etc. Heads are quickly interchanged. Kit includes cylinder, pencil burner unit, utility burner head, soldering tip, flame spreader, flint sparklighter, and a metal carrying case. 5 lbs.

33F824. NET, EACH.................................**6.85**

33F821. Replacement cylinder for all standard torches. 2 lbs. **NET**.................**1.15**

TORCH KIT

Model TX10. All brass pencil flame burner for all-around heavy-duty work. The ideal tool for quick overall heating coverage for consistent torch users. Cylinders are equipped with safety relief valve. Exclusive patented pressure control valve gives constant steady flame while burning in any position. Among its many uses are tinning, melting lead or babbitt, freeing frozen nuts and bolts, and wherever heat is required. Shpg. wt. 3 lbs.

33F825. NET, EA.... **4.65**

CRAFT KIT

Model TX-1195. A complete 12 piece kit of soldering tools to simplify home and hobby soldering jobs. Will perform practically every soldering craft project and job around the house. Solders aluminum, brass, stainless steel, silver, copper, tin and sheet metal. Kit contains: Fuel cylinder; soldering tip; Pencil burner unit; 5 Rolls 1/16" solder including Stainless steel solder, silver solder, aluminum solder, rosin core solder, and acid core solder; 3 tubes assorted soldering fluxes including silver solder flux, aluminum solder flux, and stainless steel solder flux; 10⅞x6x3" enameled steel tool chest and a complete instruction and project book. Shpg. wt., 5 lbs.

33F196. NET.................................**8.00**

● *NEW* HANDI-HAND® TORCH TX610

New lightweight torch with 4 foot hose. Allows user to keep both hands free, belt clip on fuel cylinder. Ideal for those hard-to-get-at places. Used for soldering, sheet metal work, thawing ice filled gutters, removing paint, laying asphalt tile, automobile use, etc. Wt. 4½ lbs. With pencil burner head and cylinder.

33F819. NET........... **8.65**

VASCO "PETITE" SOLDERING IRON

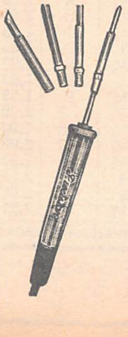
"PETITE" SOLDERING IRONS

Twenty-five watts of heat in 1½-ounce iron. Only 6¼" long. Ideal for printed circuit work. 110V. AC-DC extra-flexible cord. Shipping weight, 8 oz.

33F090. NET.................................**3.53**

33F091. 3/16" replacement tip for above..**34c**

"PRECISION" IRON



- **110 Volts, No Transformer.**
- **Ideal For Use Around Semi-conductors**
- **Ideal For All Lead-tin Solders in Common Use**

Model C-115. A soldering iron sized and shaped like a pen. No visual obstruction of work. Safety handle will not burn or char on contact with other irons. Tips from 3/32" to 3/16" dia. Tip stays hot under production speed operation. Sealed element assures constant temperature. Rapid heat-up time—just 45 seconds. Tip fits over the element—no heat wasted. Cools off in 3 minutes. Ultra-flexible three-wire cond. with high temperature plastic insulation allows for grounding the instrument.

33F242. Model C-115 Iron less tip:
1-5...............**4.85 EA.** 6 or more...............**4.35 EA.**

TIPS

Stock No.	Sizes	Material**	Shape*	1-49	50-up
33F267	3/32"	Nickel	C	.55	.50
33F268	5/32"	Nickel	C	.55	.50
33F269	3/16"	Nickel	C	.55	.50
33F244	3/32"	Nickel	S	.55	.50
33F245	5/32"	Nickel	S	.55	.50
33F249	3/16"	Nickel	S	.55	.50
33F246	3/32"	Iron	S	1.20	1.10
33F247	5/32"	Iron	S	1.20	1.10
33F248	3/16"	Iron	S	1.20	1.10
33F264	3/32"	Iron	C	1.20	1.10
33F265	5/32"	Iron	C	1.20	1.10
33F266	3/16"	Iron	C	1.20	1.10

*C—Chisel End. S—Spade End. **Plated.

33F243. Heating Element **2.20**

HEXACON

ELECTRIC SOLDERING IRONS

Irons furnished for 115 Volts. Also available in 230 volts. Equipped with 2-conductor extra-flexible Neoprene cord and plug. Available with 3-conductor cord with moulded-on 3-prong grounded plug on special order. All Irons stocked without tips, except G14 and G148. Easily replalceable elements are immediately available on special order.

HEXACON HORNET KITS

Smallest industrial soldering iron for micro-electric soldering, ideal for semi-conductors. Smallest tip—only 1/32". Shortest distance from work—1 15/16". Lowest wattage—12 watts. Hot tip gets in and out of work fast—no damage to insulation. Stainless steel mirror deflector provides extremely cool handle. Model H 10K kit (2 wire). Includes 12 watt iron, cleaning sponge and 1/32, 1/16" tips (HT866D and HT869D.

33F942. NET.......................... **6.58**

Model H10K Kit. As above, but with 3-wire cord and plug.

33F943. NET.......................... **7.46**

SUPER PENCIL IRONS

For printed circuits, etc. Weight only 2 oz. Short reach 3". Cool handle. All the advantages of a soldering pencil. but a compact, rugged industrial soldering iron, with precision nickel-chromium, mica wound element. Shpg. wt., 8 oz. Less tips.

Stk. No.	Model	Wattage	Uses Tip Size	NET
33F829	25S25	25	⅛	**4.35**
33F831	25S35	35	⅛	**4.35**
33F832	25S50	50	⅛	**5.05**
33F828	26S30	30	3/16	**4.32**
33F833	26S35	35	3/16	**4.32**
33F835	26S50	50	3/16	**5.02**
33F827	24S50	50	¼	**4.94**
33F836	24S40	40	¼	**4.94**
33F837	24S60	60	¼	**4.94**

INSTANT SOLDER GUN

Model G14. Weighs only 8 oz. Solders in seconds. Ideal for intermittent soldering. 150 watts. Has ¼" tip. Shpg. Wt., 1¼ lbs.

32F807. NET.......................... **5.57**

Model G148. 150 watts. Has ⅛" tip.

32F808. NET.......................... **5.57**

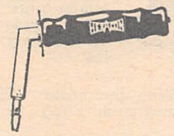
Model G143. Heater tip assembly for G14.

32F809. NET.......................... **2.80**

Model G1483. Heater tip assembly for G148.

32F810. NET.......................... **2.80**

BANTAM HATCHET IRONS



For printed circuits, etc. Weighs but 3 oz. Smallest hatchet. Same construction as super pencil, except for handle. Shpg. Wt., ½ lb. Less tip.

Stk. No.	Model	Wattage	Uses Tip Size	NET
33F895	25H25	25	⅛	**5.05**
33F838	25H35	35	⅛	**5.05**
33F839	25H50	50	⅛	**5.05**
33F896	26H30	30	3/16	**5.02**
33F841	26H50	50	3/16	**5.02**
32F811	24H40	40	¼	**5.46**
33F843	24H60	60	¼	**5.46**
32F812	30H50	50	¼	**5.46**
32F813	30H70	70	¼	**5.46**

PIN POINT IRONS

For printed circuits, etc. Weighs but 3 oz. Same construction as Super Pencil, except for the handle and longer reach 4½". Wt., ½ lb. Less tip.

Stk. No.	Model	Wattage	Uses Tip Size	NET
33F897	P2525	25	⅛	**4.35**
33F845	P2535	35	⅛	**4.35**
33F898	P2630	30	3/16	**4.32**
33F848	P2650	50	3/16	**4.32**
33F849	P2450	50	¼	**4.94**
33F850	P2460	60	¼	**4.94**
32F814	P3060	60	¼	**4.76**
33F852	P3075	75	¼	**4.76**

TIP CLEANING SPONGE

Insures reliability of soldered joints and extends tip life. Eliminates contamination and safety hazards caused by wiping rags. Pure cellulose sponge contains no harmful acids.

32F821. Model 810. Sponge, tray. **NET 1.05**

32F822. Model 8101. Sponge only. **NET.. .39**

32F823. Model 8102. Tray only. **NET........ .67**

PRODUCTION LINE IRONS

For fastest soldering on Radio-TV conveyors, etc. Short, well balanced, with cool, comfortable handles. Rugged, high heat alloy elements. Approx. shpg. wt., 1½ lbs. Less tip.

Plug Tip Irons

Stk. No.	Model	Wattage	Uses Tip Size	NET
33F892	P100	100	⅜	**7.04**
33F893	P150	150	⅜	**7.74**
32F815	P153	175	⅜	**7.74**
32F816	P151	175	½	**8.09**
33F894	P200	200	⅝	**8.12**
33F891	P250	250	⅝	**9.52**

Super Power Irons

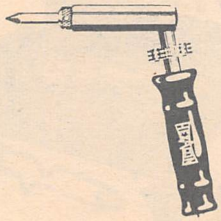
Model P154. 150 watt. Uses ¼" tip.

32F817. NET.......................... **7.88**

Model P238. 200 watt. Uses ⅜" tip.

32F818. NET.......................... **8.79**

HATCHET TYPE



Gives perfect balance—Solder in natural position. For inaccessible places. Wt., 1½ lbs. Less tip.

Model 100H. 100 watts. Uses ⅜" tip.

32F819. NET.......................... **8.61**

Model 150H. 150 watts. Uses ⅜" tip.

32F820. NET.......................... **9.31**

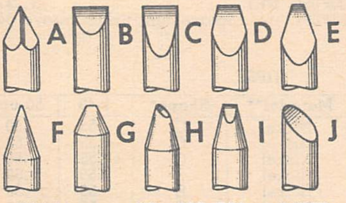
Listing Hexicon on the bottom of this page and top of next page.

DUROTHERM NON-FREEZING TIPS

Iron coated and immunized. Longest wearing and best performing tip ever produced. Anti-scaling and anti-corrosion design absolutely prevents tips from sticking. The most wear resistant yet developed. No need to remove tips daily to prevent sticking. Minimum loss of heat delivery. Pretinned, ready to use.

Note: Also available; XTRADUR Iron-Coated Pretinned Tips. Multi-coated for extra long wear which immunizes shank of tip from solder, thus preventing adhering of solder, except on working surface of tip—prevents creeping and spilling of solder. USE TYPE NUMBERS SHOWN, EXCEPT SUBSTITUTE X FOR D. Cost approximately 10% less than DUROTHERM. For HEXCLAD Iron Coated Pre-Tinned Tips, use same type numbers, except omit D. Cost approximately 30% less than DUROTHERM.

LONG LIFE SOLDERING TIPS



⅛" Diameter (Fits 25S, P25, and 25H)

Stk. No.	Type	Point	Lgth.	Style*	NET
32F750	HT248D	1/32x1/32	2¼	A	**1.61**
32F751	HT249D	⅛x1/32	2¼	B	**1.61**
32F752	HT376D	⅛x1/32	2¼	C	**1.61**
32F753	HT560D	1/16x1/32	2¼	D	**1.61**
32F754	HT222D	1/16	2¼	G	**1.61**
32F755	HT361D	1/16x1/64	2¼	B2	**2.00**
32F756	HT331D	1/32	2¼	F	**1.61**
32F757	HT638D	⅛	2¼	J	**1.61**

3/16" Diameter (Fits 26S, P26, and 26H)

Stk. No.	Type	Point	Lgth.	Style*	NET
32F758	HT251D	1/32x1/32	2¼	A	**1.68**
32F759	HT294D	3/16x1/32	2¼	B	**1.68**
32F760	HT195D	3/16x1/32	2¼	C	**1.68**
32F761	HT207D	3/32x1/32	2¼	E	**1.68**
32F762	HT190D	⅛x1/16	2¼	D	**1.68**
32F763	HT214D	1/16	2¼	G	**1.68**
32F764	HT290D	⅛x1/32	2¼	C3	**1.79**
32F765	HT281D	1/32	2¼	F	**1.68**

⅜" Dia. (Fits P100, P150, P238, 100H, 150H)

Stk. No.	Type	Point	Lgth.	Style*	NET
32F791	HT140D	3/16x1/16	4	D	**2.07**
32F792	HT510D	1/16	3¾	F	**2.07**
32F793	HT177D	3/16x1/32	4 9/16	D5	**2.42**
32F794	HT231D	5/16x1/16	4 9/16	D	**2.07**
32F795	HT255D	1/16x1/16	4 9/16	A	**2.07**
32F796	HT266D	¼x1/16	4 9/16	B6	**2.42**
32F797	HT475D	3/32x1/32	4 9/16	E5	**2.42**
32F798	HT918D	5/32x1/16	4	E	**2.07**

¼" Diameter (Fits P30 and 30H)

Stk. No.	Type	Point	Lgth.	Style*	NET
32F777	HT252D	1/32x1/32	2¾	A	**1.93**
32F778	HT253D	¼x1/16	2¾	B	**1.93**
32F779	HT202D	3/16x1/32	2¾	D	**1.93**
32F780	HT299D	⅛x1/32	3	D	**1.93**
32F781	HT426D	⅛x1/32	2¾	E	**1.93**
32F782	HT328D	1/16x1/32	3	E	**1.93**
32F783	HT131D	1/32	2¾	F	**1.93**
32F784	HT264D	⅛x1/32	2¾	B3	**2.00**
32F785	HT452D	1/32	2¾	G3	**2.00**
32F786	HT356D	1/16x1/32	2¾	C3	**2.00**
32F787	HT391D	3/32x1/32	3¾	F	**1.93**
32F788	HT519D	⅛x1/32	3	C3	**2.00**
32F789	HT234D	5/32x1/32	3	C7	**2.00**
32F790	HT230D	3/16x1/32	4½	D	**2.21**

(Continued next nage)

*NOTE suffix number on style indicates the following: (2), 1/16"; (3), 3/16"; (5), 3/16"; (6), ¼"; (7), 5/32".

SOLDERING IRONS AND ACCESSORIES

HEXACON

LONG LIFE SOLDERING IRON TIPS (Cont.)

1/4" Diameter (Fits 24S, P24, and 24H)

Stk. No.	Type	Point	Lgth.	Style*	NET
32F766	HT325D	1/32x1/32	2¼	A	**1.93**
32F767	HT553D	1/4x1/16	2¼	B	**1.93**
32F768	HT417D	1/8x1/32	2¼	E	**1.93**
32F769	HT313D	3/16x1/32	2¼	D	**1.93**
32F770	HT397D	5/32x1/32	2¼	D	**1.93**
32F771	HT586D	1/8x1/32	2¼	H	**2.00**
32F772	HT451D	1/8x1/32	2¼	C3	**2.00**
32F773	HT513D	1/16	2¼	F3	**2.00**
32F774	HT324D	1/8x1/32	2¼	B3	**2.00**
32F775	HT563D	1/4x1/16	2¼	A	**1.93**
32F776	HT691D	1/16x1/32	2¼	C2	**2.17**

*See preceding page for illustrations.

TELLURIUM COPPER TIPS

Stk. No.	Dia.	Fits Irons	NET
33F944	1/8	25S, 25H, P25	**.20**
33F945	3/16	26S, 26H, P26	**.23**
33F946	1/4	24S, 24H, P24, P30, 30H	**.32**
33F941	1/4tt*1/8	24S, 24H, P24, P30, 30H	**.42**
33F947	3/8	P100, P150, P238, 100H, 150H	**.49**
33F949	3/8tt*1/4	P100, P150, P238, 1004, 150H	**.63**
33F948	5/8	P200, P250	**1.16**

*Turned Tip.

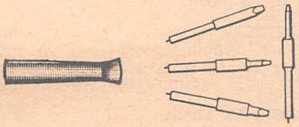
MINIATURE TIPS FOR HORNET H10

5/8" LENGTH

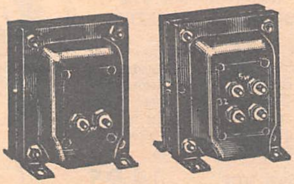
Stk. No.	Type	Point	Style*	NET
32F799	HT866D	1/32	J	**.84**
32F800	HT867D	1/32	ball point	**.84**
32F801	HT868D	1/16	J	**.84**
32F802	HT869D	1/16	C	**.84**
32F803	HT870X	1/16x1/32	D	**.63**
32F804	HT864X	1/8	J	**.63**
32F805	HT873X	1/32	F	**.63**
32F806	HT871X	1/8x1/32	B	**.63**

***See preceding page for illustrations.**

NEW GENERAL ELECTRIC "MIDGET" SOLDERING IRONS



MIDGET SOLDERING IRONS



115-V TRANSFORMERS

Extremely small size and light weight make this iron very popular with electronic manufacturers. The heater inserted farther into the tip, improves initial heat-up, and provides faster recuperation from joint to joint. Iron-clad tips provide long life with minimum maintenance costs. Contact, holding of the tip and heater assembly are accomplished with the spring lever. Assures positive contact and serves to hold the tip and heater firmly in the handle. Longer life and greater safety due to low voltage supplied by transformers. Transformers available in two types as listed below. All Irons 6 volt-25 watts. UL approved. Wt., 3 oz.

HANDLE & CORD ASSEMBLY

No.	Type	Description	1-5	6-up
33F440	6D200	Handle & Cord	**3.65**	**3.28**

TIP AND HEATER ASSEMBLIES

No.	Type	Tip Dia.	1-5	6-up
33F441	6D211	1/4" chisel	**3.95**	**3.55**
33F442	6D213	1/8" cone	**3.95**	**3.55**
33F443	6D215	3/16" pyramid	**3.95**	**3.55**
33F444	6D217	3/16" chisel	**3.95**	**3.55**

NOTE: For complete iron, order 6D200 Handle plus Tip and Heater Assembly of your choice.

TRANSFORMERS FOR ABOVE

Specially designed, 115-volt transformers available in two types. Single-tap transformer is for use where only one soldering heat is required. Four-tap transformer gives wide range of heats (from 26 to 35 watts) for close temperature control of tips.

Model 6A362G2. Single tap transformer.
33F408. 1-5 Net Each....**6.90**
6 or more Net Each....**6.21**

Model 6A364G2. Four tap transformer.
33F409. 1-5 Net Each....**9.20**
6 or more Net Each....**8.28**

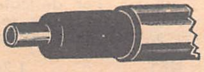
WALDMAN EPOXY SILVER SOLDERS

Conductive silver epoxy combines the adhesive characteristics of epoxy with the electrical conductivity of silver. Epoxy "solder" can be used at room temperature for components which are heat sensitive; it can be used to bond dissimilar materials and it has no flux or residue to contaminate sensitive electronic components. When used with dissimilar materials, epoxy "solder" provides a strong bond where soldering or brazing is often impossible.

Stk. No.	Type	Description	Ohm-Cm Resist.	Max. Oper. Temp. °C.	Typical Cure Schedules	Jar Size	Per Jar
32F550	3021	2 Part Paste Pure Silver	.001	125-150	27C—24 Hours 65C— 3 Hours	2.5 oz.	**10.00**
32F551	3022	2 Part Paste Pure Silver	.01	125-150	27C—24 Hours 65C— 3 Hours	3.0 oz.	
32F552	3030	Pure Silver Paint	.001	125-175	Air Dry	4.0 oz.	
32F553	3024	2 Part Paste Silver Alloy	.01	125-175	27C—24 Hours	8.0 oz.	

BULK QUANTITIES ARE AVAILABLE; WRITE FOR PRICES

ALPHA "CEN-TRI-CORE" SOLDER



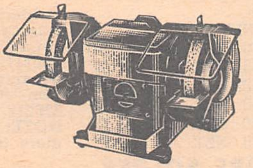
Type 456. Sequence action, void proof, rosin filled solder. Consists of a solder wire coated with energized rosin flux and covered with an outer solder sleeve. Meets Federal Specs. QQ-S-571B & MIL-S-6872A.

Stock No.	Tin/ lead %	Dia.	Core	Quantity	NET
33F436	60/40	.062	D	1 lb. spool	**1.51**
33F437	60/40	.062	D	5 lb. spool	**7.35**

Core D—2.5% flux by weight.

THOR GRINDERS

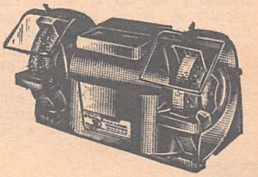
BENCH GRINDER



Model No. 118B 4½" Wheel Bench Grinder. Two wheels 4½"x½"x ½" hole - (one 40-grit, one 70-grit). 3450 rpm (no load). Hi-strength aluminum alloy housing. Trouble-free shaded pole motor. 115 volts, 60 cycles AC. Features cast in parts tray, rubber feet and base drilled for mounting. protected slide switch, removable end guards, adjustable tool rest, electrostatically applied silicone finish, oversize eye shields and flat front design to permit grinding with both wheels on piece work. Complete grinder is UL industrially rated and CSA approved. Overall length 9¼". Shipping weight 9 lbs.

33F343. NET.... **15.37**

BRONZE BEARING GRINDER



Model No. 128B ¼ H.P. 6" Wheel Bronze Bearing Grinder. Two wheels 6"x¾"x½" hole—(one 46 grit, one 75 grit). 3450 rpm (no load). Hi-strength aluminum alloy housing. Trouble-free shaded pole motor. 110 volts, 60 cycle AC. Features: cast in tools parts tray; eye shields; oilless, self aligning bearings; removable end guards; base drilled for mounting; heavy duty toggle switch; electrostatically applied silicone finish; and flat front design to permit grinding with both wheels on piece work. Complete grinder is UL industrially rated and CSA approved. Overall length 16". Shipping weight 24 lbs.

33F307. NET.... **24.85**

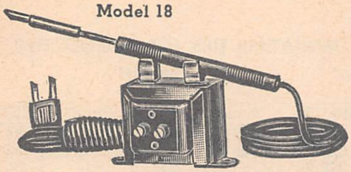
NEWARK—Seven giant warehouses give nation-wide service to the electronic consumer.

No matter where your location may be consult with NEWARK for all your electronic items.

SOLDERING IRONS AND EQUIPMENT

ORYX SOLDERING IRONS

Model 18



Oryx soldering irons are small precision units, designed primarily for electronic work. All operate from a low-voltage source, such as a transformer or automobile battery. Compact and durable. Will last a lifetime.

Model 18-6V. Extremely small and light miniature soldering tool for production line or laboratory. Heat equivalent to a standard 80 watt iron. Feather weight . . . 3/4 oz. . . . 6 volts . . . 18 watts . . . 674°F. maximum temp. . . . 7¼" long . . . tips F 3/16" and G 3/16". Shpg. wt. 3/4 oz.
33F293. Net Each **7.35**
Lots of 12, each 7.05

Type 54203-6V Transformer. Special transformer for all 6 volt Oryx soldering irons. Output is 6 volts at 3 amps (18 watts). With cord. Wt., 1½ lbs.
33F290. NET **5.34**

Model 5420-12V. 12 volt transformer. With clip-holder. 25 W., 2 amps. 110V AC. Shpg. wt. 1½ lbs.
33F297. NET **6.32**

Type 12-6V. Used in service shops, assembly lines, and by radio amateurs. Maximum Temp. 652°F., Type C tip. Wt. ¼ oz.
33F281. 6 volt. **NET** **5.34**
Lots of 12, each 4.95

115 VAC SOLDERING PENCILS

Two 115v AC pencil type soldering instruments. Designed for continuous production and precision soldering. Immediate plug in. No transformer required. Tips are nickel plated, chrome copper alloy. Complete with tip and 4½' UL approved ultra-flexible cord. Wt., 1 oz.

Model 115-10W. Heats to 672°F in 70 seconds. Type J tip supplied also takes type K.
33F412. NET 6.81
Lots of 12, each 6.45

Model 115-15W. Heats to 717°F in 50 seconds. Type L tip supplied, also takes type K.
33F413. NET 6.81
Lots of 12, each 6.45

NICKEL-PLATED REPLACEMENT TIPS

Average shipping weight, 4 ounces/10.
33F285. Type A. 5/32". **NET** .... .49
33F286. Type B. 3/32". **NET** .... .49
33F287. Type C. 3/16". **NET** .... .49
33F288.* Type D. 5/32". **NET** 1.76
33F289.* Type E. 3/32". **NET** 1.76
33F294. Type F. **NET** 1.22
33F295.* Type G. **NET** 1.81
33F414. Tip J. 3/32". **NET** 1.52
33F415. Tip K, 5/32". **NET** 1.65
33F416. Tip L. 7/32". **NET** 2.20

***Solid Nickel Replacement Tips**

Type 6. Ultra-compact 6 watt 6 volt iron with 1/16" fixed tip. Recommended for measuring instruments, hairspring movements, RF coils, etc. Maximum Temperature 542°F. Shpg. wt., ¼ oz.
33F275. NET **5.34**
Lots of 12. each 4.95

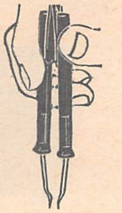
33F276. Type 6A. As Type 6, but has replaceable Type B tip. Maximum Temperature 602°F. Wt., ¼ oz.
NET 5.34
Lots of 12, each 4.95

Model 9-6V. Light weight, precision tool with generous heat capacity. Designed for 8.3 watts, 6 volt AC-DC. With type A tip. Wt. ¼ oz.
33F277. NET **5.34**
Lots of 12, each 4.95

Model 9-12V. Outstanding 8.3 Watt soldering iron. Oper. 12V AC-DC. With type A tip. Wt. ¼ oz.
33F278. NET **5.34**
Lots of 12, each 4.95

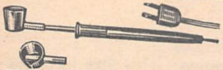
Model 25-12. Miniature 25-watt soldering iron for continuous operation at 1000°F. Heavy copper alloy bit with solid nickel Type G tip. Voltage 12V AC-DC. Length 7¼". Wt. 1 oz.
33F296. NET EACH **7.84**
Lots of 12, each 7.55

MICROMINIATURE SOLDERING TWEEZERS



Model TW-6 tweezers have separate heating elements in each arm. 572°F tip temperature. Concave tip. 1/32" tips. To be used with Model 54203-6V transformer or 6 volts DC. With 4½ ft. cord. 7 oz.
33F292. NET **14.95**

MINIATURE SOLDER CUPS



Copper and heavily nickel plated cups have a 2½cc. capacity. Temp. of 555°—600°F. in 5 min. Wt. 2 oz.

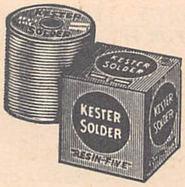
Stk. No.	Type	Use with Iron	NET
33F410	SC-18	Model 18-6	2.25
33F411	SC-115	Model 115-15	2.25

MINIATURE THERMAL WIRE STRIPPER

Type ST-6. Usable with a wide variety of insulating materials and with widely varying wire sizes. Separate steel shipping heads have an operating temperature of 480°F. Tweezers allow for variable pressures and control without damage to conductors. Length: 6". Wt. 2 oz.
33F299. NET **14.95**

FAMOUS KESTER SOLDERS

- **Standard and extra-thin for special jobs**
- **All types available in 1 and 5 lbs.**



Preferred by servicemen, amateurs, and industry for all types of radio, TV, and electrical work because of its uniform high quality and reliability. Compounded of highest grade tin and lead, with evenly distributed flux filler. Rosin core or "Resin Five" solder should always be used for all radio, electronic, and electrical soldering. Shipping weights: handy coils, 3 oz.; 1 lb. spools, 1¾ lbs.; 5 lb. spools, 6¼ lbs.

"RESIN FIVE" CORE SOLDER

Standard Size: 3/32" diameter. Features super-active resin flux that cleans more thoroughly without being corrosive. Recommended for all radio and electronic work. Also ideal for electrical wiring. 40/60 is 40% tin, 60% lead, 50/50 is half tin, half lead, 60/40 is 60% tin, 40% lead.
33F205. 1 lb. spool 40/60. **NET** 1.21
33F219. 5 lb. spool 40/60. **NET** 5.85
33F207. 1 lb. spool 50/50. **NET** 1.44
33F220. 5 lb. spool 50/50. **NET** 7.00
33F221. 1 lb. spool 60/40. **NET** 1.64
33F222. 5 lb. spool 60/40. **NET** 8.00
Extra Thin. 1/16" diameter.
33F200. Handy Coil. **NET** .... .20
33F213. 1 lb. spool 40/60. **NET** 1.24
33F214. 5 lb. spool 40/60. **NET** 6.00
33F215. 1 lb. spool 50/50. **NET** 1.47
33F216. 5 lb. spool 50/50. **NET** 7.15
33F218. 5 lb. spool 60/40. **NET** 8.15
33F217. 1 lb. spool 60/40. **NET** 1.67

PLASTIC ROSIN CORE SOLDER

Standard Size. 3/32" diameter. Recommended for all radio and electrical applications. Non-corrosive. Plastic rosin filled. Alloy 40% tin, and 60% lead.
33F201. 1 lb. spool. **NET** 1.21
33F202. 5 lb. spool. **NET** 5.85
Extra Thin. 1/16" diameter. For delicate work where only small amounts are required. Non-corrosive. Plastic rosin filled.
33F203. 1 lb. spool. **NET** 1.24
33F204. 5 lb. spool. **NET** 6.00

SOLDERING NEEDS

Soldering Paste. Even distribution of fluxing ingredients. Handy for general repair work. 2 oz. can.
33F211. NET 13c
Tinning Block. Cleans and tins soldering iron. Replaces sal ammoniac. 1¼ lbs.
33F212. NET 65c
NOTE: Special alloys and special diameters are available for industrial use.

ERSIN MULTICORE SOLDER

Five-core solder made with Ersin Flux, the original non-corrosive extra-active flux. The 5-core design guarantees continuity of flux stream, faster melting, solder economy and same percentage of flux-to-solder as with single core types. No. 16 S.W.G. Shpg. wt., 1-lb. carton, 1¾ lbs.; 7-lb. reel, 9¼ lbs. SWG wire gauge sizes: 14=.080, 16=.064, 18=.048.

1 POUND CARTONS

Stk. No.	Alloy	Gauge	1-27	28 up
33F226	40/60	16	1.62	1.39
33F229	50/50	16	1.83	1.59
33F228	60/40	16	2.03	1.75
33F230	60/40	18	2.08	1.81

7 POUND REELS

Stk. No.	Alloy	Gauge	1-3	4 up
33F227	40/60	16	11.04	9.45
33F233	50/50	16	12.55	10.85
33F234	60/40	16	13.93	11.97
33F235	60/40	18	14.27	12.39

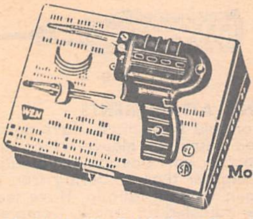
No. 6018. Service Pak. 5 core construction with extra fast flux. Red Pak. 60/40 alloy No. 18 gauge. Shpg. wt., 4 oz.
33F236. NET EACH **49c**

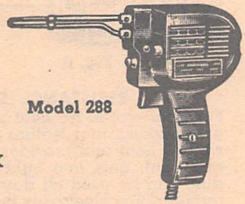
SAVBIT INDUSTRIAL SOLDER

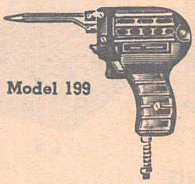
Ersin multicore 5 core solder with an alloy that stops the wearing out of copper tips. The melting point electrical conductivity, tensile and shear strength is the same as in standard tin-lead alloys. 1 lb. spools. Av. Shpg. wt., 1¼ lbs.

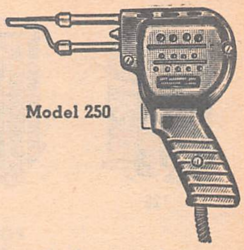
Stk. No.	Gauge	1-27	28 up
33F239	14	1.94	1.67
33F240	16	1.96	1.70
33F241	18	2.03	1.74

ELECTRIC TOOLS AND SOLDERING IRONS


Model 100K


Model 288


Model 199


Model 250

Model 100K. Soldering Gun Kit. 100 Watt electronic soldering gun. Gets full working heat in just 2½ sec. Extra long, general purpose soldering tip. Modern thin-line, light weight design, with built-in automatic spotlight. Accessories: Plastic tile cutting tip which is also designed for softening old, hardened putty; 5' of rosin core solder. Furnished with two color storage case. Shpg wt., 2 lbs. 3 oz.
33F935. Single Kit. **NET**........................5.83
3 or more, Each........................5.19

Model 100. Soldering Gun. Gun only, as above, with replaceable extra long steel-nosed long life tip. Built-in spotlight. Extra thin (1 11/16") 120 VAC. Weight 1 lb. 3 oz. Less accessories.
33F930. Single unit. **NET**........................4.66
NET EACH, 3 or more........................4.37

Model 288. Heavy Duty Gun—over 200 W. melts solder in 4 sec. Perfect balance. Built-in automatic spotlight. Has extra power and ability to transfer more heat volume to the work but lightweight for its wattage. Strong black handle. 120 cap., 60 cyc. Shpg. wt., 3 lbs.
33F902. Single Unit. **NET**........................**7.33**
NET EA. for 3 or more........................6.51

EXTRA TIPS FOR MODELS 100 AND 199
Individually pkgd. 1 per pkg.

Stk. No.	Type	Description	EA.
33F904	19-B-4	Soldering tip	.34
33F905	19-C-1	Plastic tile cutting tip	.41
33F954	U-4	Desoldering Kit	.48

EXTRA TIPS FOR MODEL 288

33F907	28-C-4	Soldering tip	.41
33F908	28-C-1	Plastic tile cutting tip	.41
33F909	28-F-33	Flat iron tip (dent remover)	.41

EXTRA TIPS FOR 250 GUN

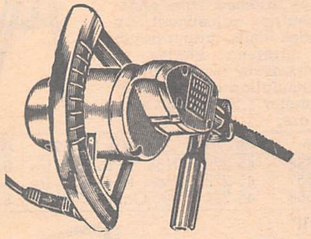
Stk. No	Type	Description	EA.
33F910	25-A-4	Soldering tip	.17
33F911	25-X-20	"Feraloy" long-life soldering tip	.34
33F912	25-C-1	Plastic tile cutting tip	.34
33F954	U-4	Desoldering Kit	.48

Model 199. Low priced, general purpose electronic soldering gun. Light, small. Long-nosed tip. Melts solder in 2½ sec. Solders wires, connections, light metals, etc. Built-in automatic spotlight. 120 VAC. 60 cyc. at 1.1 amp. max. Heat and shock resistant.
33F900. Single Unit. **NET**........................**5.83**
NET EACH, 3 or more........................5.19

Model 199K. Soldering Gun—home utility kit. Includes Model 199 Soldering Gun, three assorted tips, rosin core solder, and heavy metal kit box. Cuts plastic tile, removes putty and dents in wood, fixes scratches in woodworking and furniture, and heat-seals waxpaper and plastic bags. Wt., 3¾ lbs.
33F901. Single Unit. **NET**........................**7.33**
NET EACH, 3 or more........................6.51

Model 250. Heavy-Duty 250-W. Gun. Bigger heat volume enables it to solder relatively heavy materials, handle production jobs, as well as intermittent soldering. Unusually long life under constant usage. Molded plastic handle and case. Shpg. wt., 3¾ lbs.
33F903. Single Unit. NET........................**9.52**
NET EA. for 3 or more........................8.47

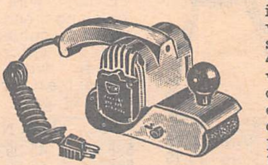
• *NEW* ZIPP SABRE SAW—⅓ H.P.



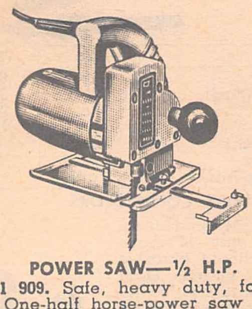
Model 920. Conventional saw grip and trigger switch. Makes horizontal cuts flush with floor. ⅓ horsepower, 4¼ amp motor. 3200 1" strokes per minute. Heavy duty roller and Oilite bearings, heavy duty hardened gears. Lightweight (6½ lbs.) and well balanced, smooth operating and cool running. Complete cutting flexibility without adjustments. Cuts wood up to 6", pipe up to 2", metals to ½" thick. Starts its own inside cut. Complete with 7 blades. For 115 VAC, 4¼ amps. Size: 7Hx7¼Wx9"L. UL approved. Shpg. wt., 8¼ lbs.
33F936. NET, EACH........................**33.04**
Lots of 3 or more, EACH........................29.37

Type 900. Pkg. of 7 extra blades for above.
33F932. NET........................2.38

● *NEW* 3 INCH BELT SANDER

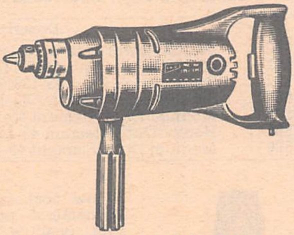


Model 910. Industrial rated 3 inch belt sander for heavy duty work. Contour grip with slide switch fits the hand. Powerful 4¼ amp motor runs cool. Light weight (7 lbs.) and well balanced. Knob can be put in either of two positions. Powerful air blast keeps dust from sandpaper and work. Single control tracking adjustment. Permanently lubricated, oversize needle and Oilite bearings. All gear power train. Industrial type 3-wire grounded cord. Polished aluminum casting. Guard prevents belt from damaging casting. Belt changed in seconds. Belt speed, 850 S.F.P.M. For 115 VAC, 4¼ amps. Size 5¾Hx 5½Wx10½"L. UL approved. Shpg. wt., 8¾ lbs. Complete with coarse, medium and fine paper.
33F937. NET, EACH........................**33.04**
Lots of 3, EACH........................29.37
No. 911. Coarse 60-grit sandpaper belt for Model 910.
33F938. EA..........................48
No. 912. Medium 80-grit sandpaper belt for Model 910.
33F939. EA..........................48
No. 913. Fine 120-grit sandpaper belt for Model 910.
33F940. EA..........................48



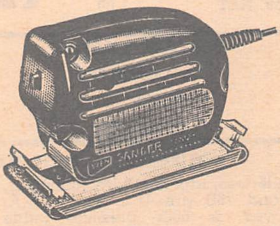
POWER SAW—½ H.P.

Model 909. Safe, heavy duty, fast cutting. One-half horse-power saw for every kind of sawing. Cuts wood to 6" thick, all metals up to ½", thinwall up to 2". Cuts curves, circles, and straight lines. Makes its own starting hole. With seven blades designed for all sorts of regular and special cutting. Has a powerful 110 volt, 6 ampere, AC-DC motor. 3400 one inch strokes per minute. Shpg. wt., 8¼ lbs.
33F931. NET........................**33.05**
3 or more, Each........................29.37
Type 900. 7 Extra blades for above.
33F932. EA.........................2.38



2 SPEED POWER DRILL

Model 808. This sensational 2 speed power drill can be easily changed from 1000 R.P.M. to 3000 R.P.M. ⅜" capacity with geared chuck. Ball thrust bearings on both spindles. Gear shafts in oversize oilite bearings. Specially designed motor produces maximum torque under load. Heavy duty rubber covered 6' cord. Overall length 12¼". Height 4¾" at handle, 3¼" at gear box. Width 2½". highly polished finish. Unit wt., 4½ lbs. Shpg. wt., 5 lbs.
33F927. NET........................**22.01**
3 or more, Each........................19.57

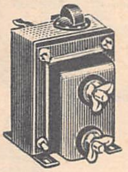


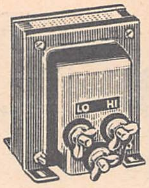
SANDER

Model 202. Economy model super power sander-polisher. Operates on 120 Volts AC 60 cycle. Straight line action gets into corners, leaves no scratches. 14,400 strokes per minute with approximately ⅛" throw. Case strong molded plastic, heat and shock resistant. Utility black. Comes in attractive display carton with 6 sheets of assorted Garnet finishing paper and one polishing cloth. Shipping weight: 3½ pounds.
33F933. NET........................**10.25**
3 or more, Each........................9.11

IDEAL SOLDERING EQUIPMENT & HARDWARE

THERMO-TIP® RESISTANCE SOLDERING TOOLS


125


250

500

POWER UNITS

125 Watts

12-124C. For light production and intermittent work. Selector switch for choice of three heats (3V, 4.5V, or 6.3V). Complete with power cord and clip for holding pencil style attachments. 115V, 60 cyc. Shpg. wt., 4 lbs.
58F573. NET........ **19.10**

250 Watts

12-123B. For heavier production work. Faster. Handles larger components than 12-124C above. Choice of two heats through "high" (6.1V) and "low" (4V) secondary connections. Complete with power cord. 115V, 60 cyc. Shpg. wt., 8 lbs.
58F574. NET........ **27.70**

500 Watts

12-163. For continuous production work. Widest selection of heats—nine choices (1.7V to 6.4V) through 3 position selection switch plus "high", "medium", and "low" secondary terminals. Complete with power cord and pilot light. 115V, 60 cyc. Shpg. wt., 13 lbs.
58F575. NET........ **45.60**

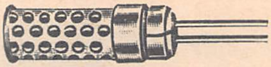


Fig. A

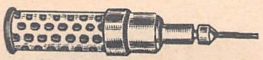


Fig. B

RESISTANCE SOLDERING ATTACHMENTS

For small parts. No heat damage or cold flow joints. Have pencil grip handles that feature perforated aluminum sleeve which dissipates heat and provides exceptionally cool operation. Versatile and light, gets into tight places. Lighter than soldering iron or gun, can be used all day by women without fatigue. Have feed through type electrodes that can be adjusted for length. Complete with 5 ft. cord with lug terminal.

12-167. Fig. A. Pencil grip handles with double metal electro style attachment. Shpg. wt., 4 ozs.
58F576. NET........ **11.00**

12-169. Fig. B. Pencil grip handles with single metal electro style attachment. Collet chuck holds feed through electrode. For smallest work. Complete with ground clamp and lead assembly for jig soldering. Shpg. wt., 9 ozs.
58F577. NET........ **11.00**

REPLACEMENT ELECTRODES

L-5241. Replacement electrodes for above. 1/16" dia., 3½" long. Shpg. wt., 2 ozs.
58F578. NET. pkg. of 6........ **.55**

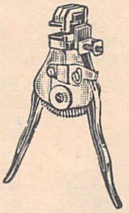
FOOT SWITCH

Model 12-146. Foot Switch. Eliminates arcing at electrodes on contact. Permits using electrodes to hold work in position after turning off heat. 3⅝" dia. x 1⅛" high. Rated 5 amps. 115 v. Wired normally open. Shpg. wt., 12 oz.
58F579. NET........ **7.15**

WIRE STRIPPERS AND CONNECTORS

CUSTOM STRIPMASTER®

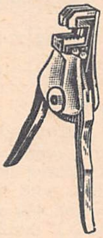
A hand stripper for Type E (600V) Teflon. Unique blade construction and extreme holding power. Strips without nicking or scraping wire. Just insert wire between blades to desired length squeeze handle and release. Includes stop latch and wire-stop. Shpg. wt. 14 ounces.



Stk. No.	Mfg. No.	AWG Gauge	NET
58F550	45-186	Nos. 10 to 14 Wire	20.75
58F551	45-187	Nos. 16 to 26 Wire	20.75
58F552	45-188	Nos. 26 to 30 Wire	20.75

STRIPMASTER®

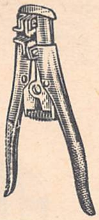
Hand stripper with automatic single-squeeze feature. Strips wire up to a full ⅞". Automatically holds jaws open for removing wire without crushing end. Reduces nicking, cutting, or fraying. For stripping lighter gauge wires. No. of holes: 6 except 14 to 22, 4. Wt., 14 ozs.



No.	Mfg. No.	AWG Gauge	NET
58F553	45-093	14 to 22	5.75
58F554	45-097	16 to 26	5.75
58F555	45-098	20 to 30	5.75

E-Z® AUTOMATIC CABLE STRIPPERS

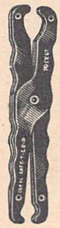
A hand stripper for solid and stranded wire. Automatic stop locks jaws open after stripping until wire is removed. Eliminates crushed wire ends. Eccentric adjustment on blades limits cutting depth of stripping blades to compensate for variations in insulation or conductor diameter. Shipping wt.. 14 ozs.



No.	Mfg. No.	AWG Gauge	NET
58F556	45-220	Nos. 16 to 26 Wire	6.75
58F557	45-222	Nos. 10 to 22 Wire	6.75
58F558	45-224	300 Ohm TV Wire	6.75

SAFE-T-GRIP® FUSE PULLER

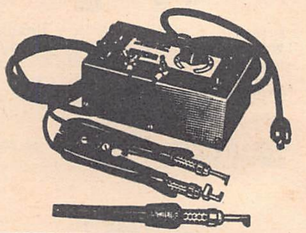
Type 34-002. A rugged laminated fuse puller with notched handles to give a sure grip. Eliminates the danger of pulling and replacing cartridge fuses by hand, or the bending of fuse clips through improper removal. Also used for adjusting loose cutout clips, handling live electrical parts. Pocket size. 7½" long. Shpg. wt. 4 oz.
58F559. NET........1.00



NEWARK CARRIES
A COMPLETE
LINE OF IDEAL
PRODUCTS

THERMO-STRIP

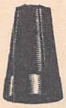
A hand model hot wire stripper for thermo plastic insulated wire. Designed as a wire stripper—not a converted soldering tool. Thermo-strip melts insulation instead of cutting or tearing it. There is no chance of nicking or cutting conductor strands. Heavy duty power unit may be operated continuously. No foot switch required—no waiting for elements to warm up. Stepless, infinitely variable heat control permits setting to exactly the right temperature. Unit has pilot light, fuse to protect transformer and is case-grounded through three-conductor cord.

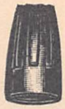


Stk. No.	Description	Wt.	NET
58F560	45-133 Power Unit & 45-140 Pincer Attach.	9 lbs.	67.20
58F561	45-133 Power Unit & 45-141 Single Loop Attach.	8¾ lbs.	56.00
58F562	Pincer Attach. for 45-133 Power Unit	1 lb.	21.70
58F563	Single Loop Attch. for 45-133 Power Unit	12 ozs.	10.50
58F564	Medium Duty Element 45-140 Pincer Attach.	2 ozs.	2.40
58F565	Heavy Duty Element 45-140 Pincer Attach.	2 ozs.	2.40
58F566	Medium Duty Element 45-141 Single Loop Attach.	2 ozs.	1.20

WIRE-NUT® WITH METAL INSERTS

A solderless, tapeless wire connector. 74B and 76B are U.L. and C.S.A. approved as 600v pressure cable connectors for general use in conduit, armored cable, non-metallic of strong phenolic. Approved for up to 150°C Av. Shpg. wt. 9 lbs./1000.

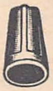

71B

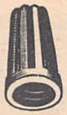

73B

Stk. No.	Type	Mfg. No.	For AWG Wire	100-999 per 1C	1000-4999 per 1M	5M-14999 per 1M	15M-up per 1M
58F567	71B	30-011	2# 18, 2# 16	.95	8.40	8.00	7.55
58F568	73B	30-017	2#18, 4#16	1.35	12.35	11.75	11.10
58F569	74B	30-018	1# 14 & 1# 18, 4# 14 & 1# 18	1.65	15.00	14.25	13.50
58F570	76B	30-019	1# 12 & 2# 18, 4# 12 & 2# 14	2.80	25.55	24.25	23.00

ALL-PLASTIC WIRE CONNECTORS

A low cost connector for OEM production. Economical production-line way to make safe, positive connections without abrasive damage to even thinnest wire strands. Long skirt of high dielectric plastic is knurled for easy application by hand or power driver. Designed for appliance and fixture manufacturers. (On connections with wires smaller than No. 18, U.L. and C.S.A. require submission of finished product for approval.) Average Shipping weight 1¾ lbs./1000.


A-0

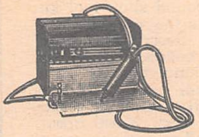

A-1

Stk. No.	Type	Mfg. No.	For AWG Wire	100-4999 per 1M	5M-14999 per 1M	15M-up per 1M
58F571	A-0	30-140	2# 24, 2# 18	4.25	4.05	3.85
58F572	A-1	30-141	2# 18, 1# 16 & 2# 18	3.95	3.75	3.55

SOLDERING AND MARKING EQUIPMENT

IDEAL

ELECTRIC ETCHERS



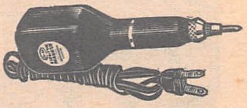
Marks iron, steel and their alloys. Depth of mark governed by speed of movement and heat of switch. Four etching heats—120, 240, 420, and 700 watts. Cover forms workplate for small tools and parts. Unit includes 4 oz. etching tool, ground clamp with 4' leads. Size: 8⅝x5⅜x7". Shpg. wt., 19 lbs.

58F580. Model 11-081. 115 V. 50-60 cyc. **64.40**
58F581. Model L-4052. Extra point for above 1.85

Standard model. Specially suited for lighter applications. Three heats—140, 205, and 375 watts. Work plate and etching tool have 5' leads. When etching large objects a ground clamp is substituted for the work plate. Includes four-ounce etching tool with heat resistant handle, and special alloy point; 4x7" work plate; three heat power unit and primary cord with heat changing switch. Size: 4x4x8". Shpg. wt., 13 lbs.

58F582. Model 11-009. 115 v. 50-60 cyc. NET **36.10**

ELECTRIC MARKER



Model 11-100. Alloy point electric marker Permanently marks any material—metal, glass, stone, ceramics, hard rubber, wood, etc. Vibrates at 7200 cutting strokes per min. Stroke and impact easily adjustable. Light weight but built for industrial use. 115 v., 60 cyc. Marker size: 6x1½x1¼". 10 oz.

58F583. NET **17.30**
Model L-2180. Extra Alloy Point Marker.
58F584. NET 2.75
Model L-2647. Extra diamond point.
58F585. NET 8.20

NEWARK HAS FOR IMMEDIATE DELIVERY, THE MOST COMPLETE STOCK OF ELECTRONIC EQUIPMENT AT MONEY-SAVING PRICES.

THERMOTRON FOR RESISTANCE SOLDERING

- **HEATS ALMOST IMMEDIATELY**
- **DRAWS CURRENT ONLY IN USE**
- **NO TINNING NECESSARY**
- **NO STAND REQUIRED**
- **USE WITH PRINTED CIRCUIT**
- **MANY HEATS AVAILABLE**

Resistance heat principle gets work done fast and safe at a low cost and still attains high quality and strong uniform joints. High amperage, low voltage current heats work only. Heat is concentrated at point of contact. No set-up or pre-heating necessary. Solder adheres instantly all around, making the strongest possible joint. Saves solder, lessens flux fumes and chances of cold joints. Down time minimized by not having to retain and free sticking tip.

PENCIL HAND UNITS

Model 3003. Designed especially for heavier work, but can be used for lighter work too. 3/16" dia. carbon tip. Can be used with Model 2001 or Model 2002 power supplies. Supplied with 5 ft. No. 10 gauge extra flexible cable and 5 ft. No. 10 gauge continuity cable. Shpg. wt. 8 lbs.

34F705. NET **8.40**

Model 3002. A lighter version of Model 3003 above. Uses ⅛" dia. carbon tip. Used with Model 2001 power supply or Model 2002 power supply using the lower taps for more critical heat adjustment such as P.C. board work.

34F706. NET 8.40

Model 3001. Similar to Model 3002 except 1/16" metal tip.

34F707. NET 8.40

REPLACEMENT ELECTRODES

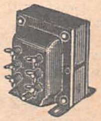
Stk. No.	Type	Used with	Description	Per Pack of 6	
				1-24	25-99
34F708	5001	3004	Metal 1/16"Dx2¼"L	.50	.45
34F709	5002	3001	Metal 1/16"Dx3½"L	.50	.45
34F710	5003	3002	Carbon ⅛"Dx3"L	1.50	1.35
34F711	5004	3003	Carbon 3/16"Dx3"L	1.50	1.35

ADJUSTABLE DUAL TIP HAND UNIT

Model 3004. For use with Model 2001 power supply or Model 2002 power supply for more critical heats. Metal tips 1/16" dia. Equipped with a 5 ft. extra flexible dual cord with attached lugs.

34F712. NET **10.50**

POWER SUPPLIES



Model 2001. 100 watt power supply. Supplies 5 dif. heats. Operates on 115V 50-60 cycle, but can be supplied for 230V 50-60 cycle operation. Equipped with 4 wing nut binding posts and four foot line cord and plug.

34F713. NET 17.50

Model 2002. 250 watt power supply. Same as Model 2001 except supplies 11 different heats, including one for printed circuit board work. Designed with high temperature insulation to withstand heavy overloads.

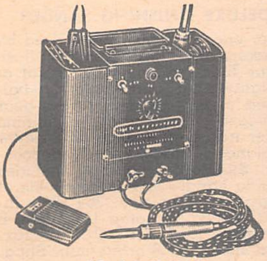
34F714. NET 24.50

FOOT SWITCH WITH SERIES PLUG

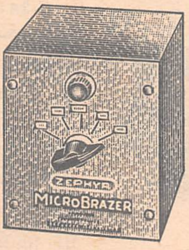
Model 4001. Holds unanchored solder joints in place until solder sets and to eliminate sparking.

34F715. NET **6.80**

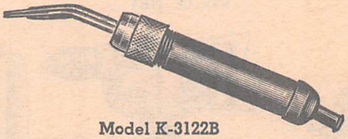
ZEPHYR MICROBRAZERS



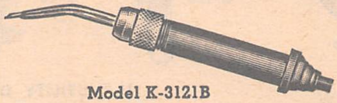
Model K-3115
Power Supply



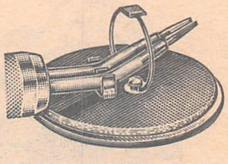
Model K-3112B
Power Supply



Model K-3122B



Model K-3121B



Model K-3132
Tinning
Bridge

Model K-3115. Electric microbrazer allows perfect soldering joints every time. An accurate pre-determined heat pulse is delivered between probe tips each time the foot switch is pressed. Precision soldering, even on miniature plugs and receptacles, can be done even by inexperienced people. Automatic timer with heat pulse is adjustable from 1/10 to 3 seconds. At high setting, maximum output is 230 watts. Two voltage settings for high and low voltage. Amount of heat delivered is just enough to sweat solder and raise flux to surface. Timer cuts off automatically before insulation burns or base material is damaged. Standard "AN" plugs and receptacles can be soft silver soldered to 750°F. Silver solder brazing on small parts to 1250°F. 115V, 60 cyc. 9 lbs.

33F814. NET **105.00**

Model K-3112B. Like unit at left, this microbrazer delivers an accurate, pre-determined amount of heat between probe tips each time the foot switch is pressed. Has three heat positions—Hi, Med, and Lo. Heat is applied when footswitch is pressed and turns off when released. Both units may be used with either the self-holding probes listed at right or the tweezer probes listed below. 8 lbs.

33F806. NET **40.00**

K-3125. Tweezer probes for above unit or unit at left.

33F809. NET **18.65**

K-3125-B. As above, but 25° rods.

33F810. NET 20.50

Model K-3121B. Standard soldering probe for units listed at left. 25° angle rods.

33F807. NET **10.75**

Model K-3122B. Heavy-duty soldering probe for unit at left. 25° angle rods.

33F808. NET **18.00**

K-3121-1. Replacement "push-in" tips for standard probes made of special Zephyr alloy. Have long life, resist pitting and oxidation—seldom need cleaning.

33F812. NET each tip .... .25

K-3122-1. As above, but tips for heavy-duty probes.

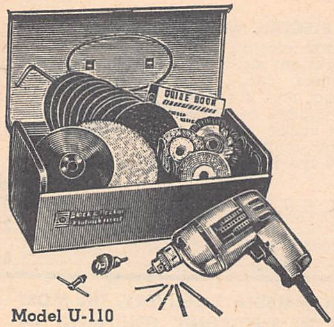
33F813. NET each .... .35

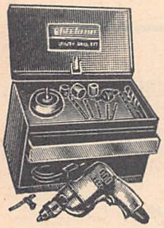
K-3132. Tinning bridge for use with any microbrazer probe.

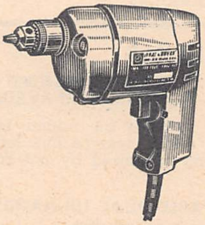
33F811. NET 9.25

B&D BLACK & DECKER POWER TOOLS

NEWARK CARRIES COMPLETE STOCKS


Model U-110


Model U-222


Model U-100

U-222 ⅜" DELUXE DRILL KIT

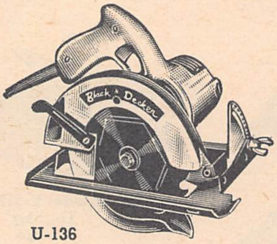
Advanced craftsman drill kit featuring the U-220 Deluxe drill (see below) with related accessories, in convenient 3 level sliding drawer steel kitbox. Accessories include: 5 twist drill bits, hole saw mandrel. 3 hole saws (⅞", 1", 1⅛"), 3 masonry drill bits (¼", ⅜", ½"), 3 wire cup brushes. Shpg. wt.: 16 lbs.

64F126. NET..**50.96**

U-220 ⅜" DELUXE DRILL

Designed for high-torque ⅜" drilling. Diecast aluminum housing. Hardened alloy steel gears. Thrives on driving twist drills up to ⅜", wood bits up to ¾" and masonry bits up to ½". 2.2 amp motor .18 horsepower AC/DC 115V motor. 1,000 RPM, length 8". Standard equipment: 3-wire conductor cable and plug; 3-jaw geared chuck and key; automatic release trigger switch with locking pin. Shpg. wt. 4¼ lbs.

64F107. NET..**31.41**


U-136

U-136 6½" UTILITY SAW

1 hp, 9 amp UL listed motor with a no load speed of 5500 RPM; instant trigger release switch, sawdust ejector, dept adjustment, telescoping blade guard with retracting lever and king size shoe. Max. cutting depth: 2 5/32" at 90° and 1⅞" at 45°. With 6½" combination crosscut and rip blade, 3 conductor cable and plug. Wt. 15 lbs.

64F127. NET..**42.46**

● NEW U-110 ¼" UTILITY FIXKIT

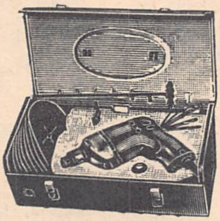
The new U-110 ¼" Utility FixKit is the one to choose as the all around shop tool kit. Included in the U-110 is the versatile new U-100 ¼" drill (fully described below) and all the accessories needed for drilling, sanding, buffing, polishing, mixing paint, grinding and many other uses. 30 pieces are included: U-100 drill, horizontal stand, polishing pad, backing pad. wheel arbor, wire wheel brush, buffing wheel, paint mixer, grinding wheel, 15 sanding discs, 5 twist drill bits and chuck key all in a roomy 14"x6"x6" gray steel kit box. With guide book. Shpg. wt., 10 lbs.

64F125. NET..**21.21**

● NEW U-100 ¼" UTILITY DRILL

This new Black and Decker ¼" Utility D Drill incorporates features not usually found in conventional drills. A full 1.9 amp U.L. Industrially Listed. .14 HP B&D built motor provides the power (a full 2250 RPM). Built for 115 VAC only. The U-100 features a longer length, more comfortable "Cycolac" handle for more positive grip control. Fits all B&D accessories. 3 conductor cord and plug, chuck key and automatic release trigger switch are all standard equipment. Capacity: in steel, ¼"; in hardwood, ½"; hole-saws 1⅛". Gray and black finish. Overall length: 7". Shipping Weight: 3¾ lbs.

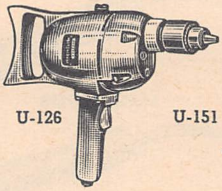
64F122. NET..**13.56**

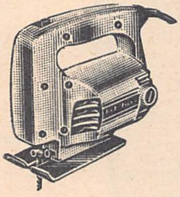


● NEW U-210 ¼" DELUXE DRILL KIT

Build It - Fix It . . . with Black and Decker's drill kit that features the ¼" deluxe drill plus 22 accessories. Steel box holds U-3 drill with geared chuck and key securely to plastic storage tray. Horizontal drill stand for bench work, wheel arbor for attaching accessories. 3½" wire wheel brush, 12 assorted sanding discs, 5" rubber backing pad, 5 assorted twist drills (1/16, 3/32, ⅛, 3/16, ¼"). Even a paint mixer. Kit complete weighs only 8 lbs.

64F106. NET..**31.41**


U-126

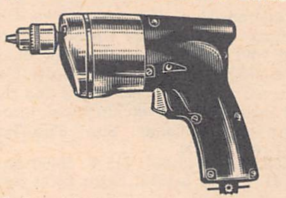

U-151

½" UTILITY DRILL

Model U-126. An excellent economical tool for extra-capacity drilling in almost any building material. Includes ½" geared chuck and key, instant-release trigger switch with locking button, 3-conductor cable and plug. Capacity: In steel—up to ½", in wood—up to 1". No-load speed: 375 rpm. Length: 13⅝". 115V AC. Shpg. wt. 11 lbs.

64F109. NET..**42.46**

¼" CORDLESS ELECTRIC DRILL

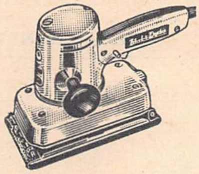


Model C-600. The world's foremost cordless drill now features a radically different, ultra-efficient motor combined with a rechargeable power-pack. Unique construction eliminates any and all danger of electrical shock from its power-pack. Drills over 200 ¼" holes or over 75 ½" holes before recharging. Overloading and stalling will not harm this extremely quiet motor. Extra precision needle bearings and enclosed motor housings of polished, die-cast aluminum add to the life of this unique drill. Chuck capacity: ¼" bit shanks. No-load speed—800 rpm. Includes power pack, chuck key mounted on handle, "contour molded" polystyrene case and instructions. Shpg. wt. 5 lbs.

64F103. NET..**44.95**

Model C-6000. Power pack charger. Plugs into any 110-120 volt outlet. Second cord plugs into back of the cordless drill. Charge settings: Normal—requires 16 hours to reach full energy level; Special—requires 5 hours for complete recharging. Shpg. wt. 2 lbs.

64F104. NET..**8.95**



U-241 DELUXE FINISHING SANDER

Designed for one hand operation. Used by cabinet makers and craftsmen for flush sanding, fine finishing on wood, metal or plastic. Lightweight and perfectly balanced. Used in any position. New gear drive, die-cast, lightweight aluminum housing offer true performance with better working balance. Trigger switch for locking button. Standard equipment includes reversible side handle and three sheets of abrasive paper. Paper size: 3⅝"x9". Industrially UL listed 2.2 amp Universal B and D built motor for 115 AC/DC. .17 max. HP. No load speed: 4300 orbits/min. Shpg. wt.: 6½ lbs.

64F118. NET..**33.96**

ABRASIVE PAPER FOR FINISH SANDING

Stk. No.	Type	Grit	Size	NET
64F119	U-1413*	60 or ½/0	3⅝x9	.76
64F120	U-1414*	100 or 2/0	3⅝x9	.64
64F121	U-1415*	150 or 4/0	3⅝x9	.64

*Envelope of 12 sheets.

SAVE WORK! Make Newark your Complete 1-Point Stock Source!

SAVE TIME! At Newark — fast, efficient service always!

SAVE MONEY! Quantity Prices Competitive with Manufacturer!

● NEW U-151 UTILITY JIG SAW

A new B&D low priced Utility Jig Saw with characteristics of an outstanding nature. Standard equipment includes a 2.2 amp UL listed .14 HP motor, 115 VAC only rated at 3000 strokes/minute (no load) 3 conductor cord and plug; wood cutting blade. An outstanding feature is its ability to make straight, curved or irregular cuts in wood, plastic, metal and composition. Capacity: ½" hardwood, ¾" softwood (continuous duty); 1" hardwood, 1½" softwood (intermittent duty). Can be used freely on light gauge metal. Gray finish. Overall length: 7". Shpg. wt.: 4½ lbs.

64F128. NET..**20.36**

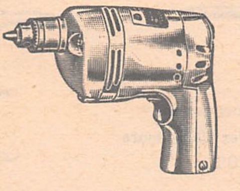
JIG SAW BLADES (3 Blades per pkg.)

Stk. No.	Type	Blade	Net
64F113	U-1019	3 deluxe blades	2.21
64F114	U-1340	Coarse tooth wood	.89

Stk. No.	Type	Blade	NET
64F115	U-1341	Coarse tooth metal	.89
64F116	U-1343	Fine tooth metal	1.28

BLACK AND DECKER

● NEW PROFESSIONAL U-300 HAND DRILL

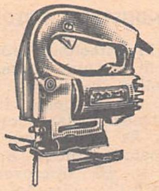


All new professional roller bearing ¼" drill—an entire new concept in hand drill power and value. Provides increased torque capacity of 20% more useable power, more get up and go to whiz through the toughest job. Featuring long-life roller bearings and powerful B&D universal 115 volt AC/DC, 2.2 amp, .23 horsepower motor. Rated speed 2250 RPM. Shpg. wt., 5 lbs.
64F123. NET........................ **28.01**

Model U-320. Same as above but ⅜" chuck. .22 H.P., 2.3 amp. 1000 RPM.
64F124. NET........................ **36.51**

U-351 PROFESSIONAL JIG SAW

• Calibrated Bevel Adjustment



Can be used as a rip, cross-cut, coping, keyhole, scroll, jig and hacksaw. Makes its own starting hole for pocket cuts. Cuts up to 1" softwood, ¾" hardwood continuous operation; up to 2" softwood and 1" hardwood intermittent operation. Easy to grip handle with locking trigger switch. Cycloid sawing action clears blade teeth on each stroke. Adj. tilting shoe with clamp lever for bevel cutting to 45°. Standard equipment: Instant release trigger switch. Rip fence and circle cutting guide, 4 blades, 3 conductor cable and plug. Universal B&D 115 volt AC/DC, 2.5 amp, .24 horsepower motor. Speed 3000 RPM. Weight, 4¼ lbs.
64F111. NET........................ **42.46**

TORQUE CONTROLS INC.

TORQUE SCREWDRIVERS

Model TS-30*. Micrometer adjustable lb/in. torque screwdriver with range of 1-30 lb/in. and lock-in settings of 1 lb/in. increments. Torques in both directions, cannot be influenced by operator and can be recalibrated in the field. Tolerance: ±5% of reading. Drive: ¼" female hex. Length: 6½". Wt., 8 oz.
64F150. EACH, NET........................ **31.25**

Model TS-100*. Micrometer adjustable oz/in. torque screwdriver with range of 2-100 oz/in. Lock in settings of 2 oz/in. increments. otherwise same as TS-30 except tolerance ±3%. Black leather female hex. Length: 6½". Wt., 8 oz.
64F151. EACH, NET........................ **31.25**

*Meets and exceeds all requirements of MIL-H-26497.

MODEL TT-1 JEWELER'S MICROMETER

Adjustable oz/in. torque screwdriver with range of 1-20 oz/in. with settings of ¼ oz/in. Torques in both directions and tolerance is ±5% plus ¼ oz/in. of reading. Drive: Universal. Length: 3⅝". Wt., 1 oz.
64F152. EACH, NET........................ **39.95**

LABORATORY OR RESEARCH KITS

Kit #1. Contains TS-100 Torque Screwdriver with selected Bits: 5 Hex Key Allen, 4 Nut runner sockets, 4 screwdriver blades, 2 Phillips blades and 2 adapters. Black leather carrying case with handle included. 1⅞x8½x3 11/16". Weight: 1 lb., 4 oz.
64F153. NET........................ **51.00**

Kit #2. Contains TS-30 Torque Screwdriver with selected bits: 7 Hex Key Allen, 5 Nut runner sockets, 5 screwdriver blades, 3 Phillips blades and 2 adapters. Black leather carrying case with handle included. 1⅞x8½x3 11/16". Weight: 1 lb., 5 oz.
64F154. NET........................ **51.00**

Kit #3. Contains TS-100 and TS-30 Torque Screwdrivers with selected bits: 12 Hex Key Allen, 9 Nut runner sockets, 9 screwdriver blades, 5 phillips blades, and 4 adapters. Black leather carrying case with handle included. 10¼x12x1¾". Weight: 2 lbs., 14 oz.
64F155. NET........................ **98.00**

Kit #4. Contains TT-1 Jewelers Torque Screwdriver with selected bits: 4 screwdriver blades, 5 Nut runner sockets. 2 Phillips blades, and 4 hex allen key. Black plastic carrying case with handle included. 1 3/16x3¾x4⅞". Weight, 4 oz.
64F156. NET........................ **55.22**

BITS FOR TS-30 AND TS-100 TORQUE SCREWDRIVERS

Stock No.	Type	Style	Size	EA. Net
64F157	HW-1	Hex Key	.050	1.60
64F158	HW-2	Hex Key	1/16	1.00
64F159	HW-3	Hex Key	5/64	1.00
64F160	HW-4	Hex Key	3/32	1.00
64F161	HW-5	Hex Key	1/8	1.00
64F162	HW-6	Hex Key	5/32	1.00
64F163	W-7**	Socket	1/8	1.60
64F164	W-8**	Socket	3/16	1.26
64F165	W-9**	Socket	1/4	1.26
64F166	W-10**	Socket	5/16	1.26
64F167	W-11**	Socket	11/32	1.26
64F168	W-12**	Socket	3/8	1.26
64F169	W-13**	Socket	7/16	1.26
64F170	HW-11	Screwdriver	.125 dia.	.76
64F171	HW-12	Screwdriver	.185 dia.	.56
64F172	HW-13	Screwdriver	.215 dia.	.56
64F173	HW-14	Screwdriver	.250 dia.	.56
64F174	HW-15	Phillips	0	.50
64F175	HW-16	Phillips	1	.40
64F176	HW-17	Phillips	2	.30

**Must be used with HW-18 Adapter.

BITS FOR TT-1 JEWELERS TORQUE SCREWDRIVER

Stock No.	Type	Style	Size	EA. NET
64F177	TW-1	Screwdriver	.055 dia	.60
64F178	TW-2	Screwdriver	.070 dia	.60
64F179	TW-3*	Screwdriver	.080 dia	.60
64F180	TW-4*	Screwdriver	.100 dia	.60
64F181	TW-5	Socket	5/64	1.20
64F182	TW-6*	Socket	3/32	1.20
64F183	TW-7*	Socket	7/64	1.20
64F184	TW-8	Socket	1/8	1.20
64F185	TW-9	Socket	5/32	1.20
64F186	TW-10	Phillips	00	1.00
64F187	TW-11	Phillips	0	1.00
64F188	TW-12*	Hex Key	.028	1.50
64F189	TW-13*	Hex Key	.035	1.50
64F190	TW-14	Hex Key	.050	1.00
64F191	TW-15	Hex Key	1/16	1.00

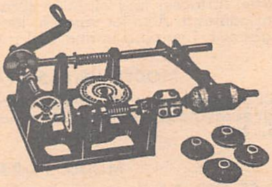
*May be used with TS-100 but requires HW-19 Adapter.

ADAPTERS

64F192	HW-18	¼" hex to ¼" square	*	1.00
64F193	HW-19	¼" hex to Universal	*	1.20

MORRIS IMPROVED COIL WINDING MACHINE

Hand-operated Coilmaster. Produces self-supporting, universal and honeycomb coils, also solenoid, single-layer. Included with each machine are: three cams, ⅛", 3/16", and ¼" throw, and four gears. The arm that carries the wire guide is adjustable for pi spacing and different diameter coil forms. Accurate winding—suitable for both experimental and practical work. Capable of producing many types of coils. Shpg. wt., 4 lbs.
34F701. NET........................ **6.67**



- **For both practical and experimental work!**
- **Includes 3 cams—⅛", 3/16" and ¼" throw!**
- **Adjustable for Pi spacing and different diameter coil forms!**

AMATEUR'S COIL WINDER

The ideal coil winder for experimental and Amateur use. Uses various gauges of wire up to No. 16. Winds solenoid, honeycomb, spiderweb coils, etc. Set up winder for type of coil required and turn the handle—dial indicator counts the turns. Supplied with two-piece spool for holding honeycomb and solenoid coils, plus cast pegholders and four 6⅛" wooden pegs for spiderweb coils. The winder is mounted on cast-iron base with holes for bench mounting. Mechanism is of machined steel. With instructions, less wire and coil forms. Size, 4⅝x5". Shpg. wt., 3 lbs.
34F700. NET........................ **4.95**

NEWARK HAS FOR IMMEDIATE DELIVERY THE MOST COMPLETE STOCK OF ELECTRONIC EQUIPMENT

SOLDERING EQUIPMENT—POWER TOOLS

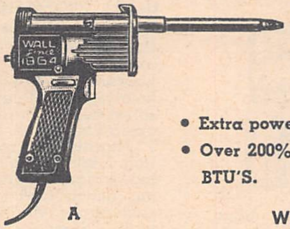
WALL "THERMOSTATIC BRAIN" SOLDERING IRONS

INDUSTRIAL SOLDERING IRONS

Built to withstand production line punishment. Provide thermostatic action for controlled heat but have no moving parts. No radionic interference. Heat four times faster than most industrial irons. As more heat is required the thermostatic brain automatically provides it. UL approved. For operation from 110-120 volts AC or DC. Maximum wattage input is for heavier soldering and the minimum wattage input is for lighter soldering. Wt., 10 oz.

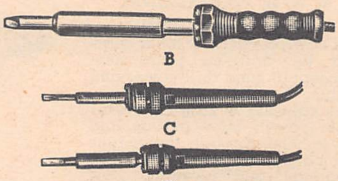
Stock No.	Mfr's. No.	Fig.	Tip Size	Watts Hi-Lo	NET EA.
33F255	12T	B	½''	300-125	9.14
33F252	18HD	D	⅛''	85-25	5.88
33F253	14T	C	¼''	125-40	5.88
33F254	38T	B	⅜''	225-80	7.18

33F260. Element for 18HD. **NET**	3.75
33F273. Element for 14T. **NET**	3.26
33F259. Tip for 18HD. **NET**	.14
33F261. Tip for 14T. **NET**	.25
33F262. Tip for 38T. **NET**	.39



A

- **Extra power.**
- **Over 200% more BTU'S.**



WALL SOLDERING GUNS

Fig. A. These guns have no moving parts, no heavy transformers, no thermostats, and no radio interference. Gun wattage is automatically regulated by "Thermostatic Brain" from Maximum to Idle. Gun provides a 6 inch reach that makes it especially valuable for production line work. Lightweight . . . easy to handle. 10 watt spotlight with switch. For AC or DC. UL approved. Heavy duty model 212LT is 650W. max., 300W. idle. Medium duty model 214LT is 400W.-150W.

HEAVY DUTY MODEL 212LT

Type 212LT. With ½" steel-clad iron tip. Shipping wt., 1 lb.
33F250. NET 11.07

Replacement tip-element for 212LT. Shipping wt., 12 oz.
33F257. NET 5.87

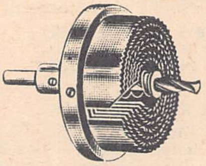
MEDIUM DUTY MODEL 214LT

Type 214LT. With ¼" steel-clad tip. Shipping wt., 1 lb.
33F251. NET 9.77

Replacement tip-element for 214LT. Shipping wt., 9 oz.
33F258. NET 3.75

ARCO TOOLS

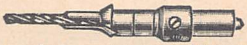
ARCO HOLE-SAWS



No. 650. Cuts 1'', 1¼'', 1½'', 1¾'', 2'', 2¼'', and 2½'' holes through any ¾'' stock. Rugged alloy tool head. 7 finest quality shatterproof blades. Automatic "slug-ejector" and ¼'' drill bit. Shipping weight: 1¼ lbs.
33F470. NET **5.19**

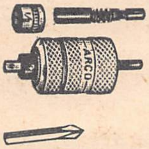
Model 600. Heavy duty design for the toughest jobs! Equipped with automatic "slug-ejector" . . . pops out discs immediately to speed up working time 3 fold. Cuts 1", 1½", 2" and 2½" holes cleanly and accurately through any ¾" stock. Has extra grooves in tool head to accommodate 1¼", 1¾" and 2¼" blades and ¼" drill bit. Fits any drill, lathe, motor. Shipping weight, 1½ lb.
33F460. NET **3.88**

SCREW-DRILL



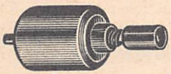
Type 1140. Drills, countersinks, all in one easy operation. Prevents the wood from splitting, the threads from stripping. ¼ inch shank. Use in hand or power tool. Chrome-vanadium bit. Nickel plated holder. Set of 4, for No. 6, 8, 10, 12 woodscrews. Shpg. wt. 2 ounces.
33F459. NET **2.41**

ARCO SCREW AND NUT DRIVER



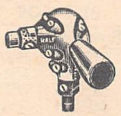
Type 750. 15-Pc. set of industrial-quality tools. Fits all electric drills. Incl. 2 flat bits with holders for #4-14 slotted screws, Phillips bit, 6 hex sockets (¼, 5⁄16, 11⁄32, ⅜, 7⁄16, ½ in.), 2 square sockets (¼, 5⁄16 in.) and socket wrench holder with ball lock. Wt. 1 lb.
33F449. NET **5.19**

SCREWDRIVER ATTACHMENT



Model 700. Fits any electric drill or drill press. Powerful industrial clutch drives up to ¼'' dia. wood screws. Special Bit Holder prevents bit from slipping from screw slot. Bit idles until pressure is applied, clutch disengages when screw is driven home. Includes two ¼'' hex bits for #2 Phillips head & for #6 to #14 slotted screws. Wt., 1 lb.
33F458. NET **3.88**

2-SPEED ANGLE DRIVE



Model 350. Right angle gear drive for half or double drill speed. Fits ¼" electric drills. Slow speed for buffing. Fast speed for smooth sanding. Swivel angle-drive for hard-to-get-at places. Includes 3 adapters to mount Angle-Drive in chuck or on drill-spindle. With instructions and guarantee. Wt., 1½ lbs.
33F471. NET **3.23**

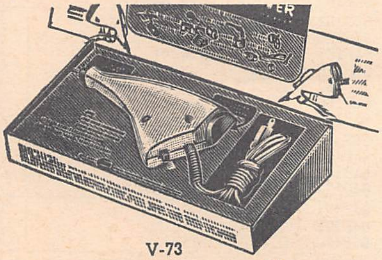
BURGESS VIBROCRAFTERS

MODEL V-73 VIBRO-GRAVER

Electric identification marker that writes on steel, glass, plastics, wood, brass, copper, ceramics. Engraves at speeds up to 7200 strokes a minute. Encased in unbreakable polypropylene. Built-in reciprocating-type motor. Hand rest design. Control wheel adjusts for fine, medium or coarse stroke. Complete with hard tantalum carbide point. 110v, AC, 60 cycles. Size, 6¼"x3¼"x1⅝". Shpg. weight, 2 lbs
33F530. NET **8.46**

Type 98003. Tantalum Carbide Point.
33F524. NET 1.27

Type 98080. Diamond Tipped Point.
33F529. NET 4.90



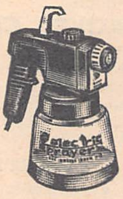
V-73

MODEL VS-850 DELUXE TURRET NOZZLE ELECTRIC SPRAYER

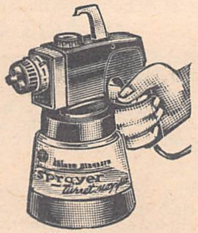
Has fog-spray nozzle for insecticides and moth-proofing, fan-spray nozzle for covering large surfaces, and circular spray for general painting. Also for varnish, lacquer, and light oils. Just plug in and pull trigger. Cleans easier than any brush, will not rust or foul. Built-in motor, shockproof head. Has 24 oz. graduated jar, 8 ft. cord. 110-120v., 60 cycs. AC. Shpg. wt. 3½ lbs.
33F495. NET **13.03**

MODEL VS-855 STANDARD BVI ELECTRIC SPRAYER

Has all the features of the deluxe model except only one nozzle. It is equipped with the circular spray nozzle for general painting.
33F525. NET **9.11**



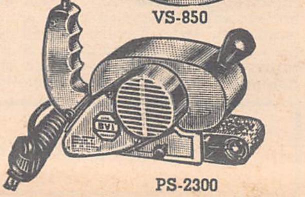
VS-855



VS-850

MODEL PS-2300 ELECTRIC BELT SANDER

Model PS-2300. A belt sander that handles every sanding job quickly and easily. Features self-lubricating bearings; two-way switch, use as momentary contact or constant type; smooth, quiet, positive chain drive; simple belt alignment; heavy-duty, UL approved, 8-foot cord. Change belts in less than 10 seconds. Belt size: 2x17⅜". Overall dimensions: 9¾x6½x4". For 110-115 volts, 50-60 cycle AC. Complete with one medium and one coarse belt and instructions. Shipping wt., 8 lbs.
33F541. NET **17.11**



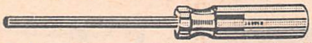
PS-2300

EXTRA SANDING BELTS

33F542. 14062. Very coarse.
33F543. 14063. Coarse.
33F544. 14064. Medium.
33F545. 14065. Fine.
Pkg. of 10 of 1 type. NET **2.58**

HUNTER TOOLS

HEX AND SPLINE DRIVERS



Screwdriver type wrenches for speedy drive socket screws. Ideal for assembly or production line. Tenite handles. 8650 alloy steel.

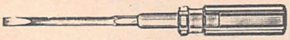
HEX DRIVERS

Stock No.	Type	Size	Overall	NET
34F431	5	.05"	4⅝"	.56
34F432	5A	1/16"	5⅛"	.56
34F433	5B	5/64"	6"	.60
34F434	5C	3/32"	6⅜"	.69
34F435	5D	⅛"	6¾"	.73
34F436	5E	5/32"	7⅝"	.73
34F437	5F	3/16"	8"	.79
34F438	5G	7/32"	8⅜"	.88
34F439	5H	¼"	9"	1.06
34F445	5I	5/16"	10"	1.25

SPLINE DRIVERS

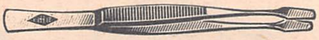
Stk. No.	Type	Key Sz.	Flutes	NET
34F450	8	#2	4	.56
34F451	8A	#4	6	.56
34F452	8B	#6	4	.56
34F453	8C	#6	6	.56
34F454	8D	#8	6	.56
34F455	8E	#10	6	.56

SCREWHOLDING SCREWDRIVER



Holds screws tight when inserting or removing. Has hard steel center pin which grips screw tightly at slightest pressure. Takes No. 7 to No. 10 screws. Shockproof plastic handle. Chrome-finished blade. Overall length, 7½". Shipping weight, 3 oz.
34F430. Type 10C. NET............ **2.25**

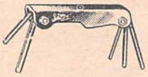
SEMI-CONDUCTOR TWEEZERS



Latest design for handling semi-conductor materials. Smooth, large surface points allow positive grip without scratching or breaking small assembly parts and miniature wires.

Stk. No.	Type	Specification	Lng.	NET
34F446	C-28	Oblong and offset jaws	4"	2.89
34F447	C-27	Oblong jaws	4¼"	2.80
34F487	C-26	Round jaws	4½"	2.66
34F488	C-35	Medium jaws	4¾"	2.66
34F489	C-25	Thin & narrow jaws	4¾"	2.49

POCKET WRENCH SETS
HEX AND SPLINE TYPES



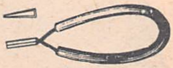
Socket headwrenches in pocket-knife handle. Fits all std. Allen, socket or spline bolts and screws. Shpg. wt., 3 oz.

Type 1P5. 5 mbedium-size blade Hex wrenches: 3/32", ⅛", 5/32", 3/16", 7/32".
34F540. NET............ **1.24**

Type 1P6. Six small-size blade Hex wrenches: .050", 1/16", 5/64", 3/32 ⅛", 5/32".
34F541. NET............ **1.24**

Type 7. 6 small spline keys:
34F456. NET............1.77

HEAT SINKS



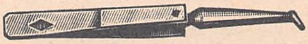
Heat sinks dissipate heat when soldering small wires. Essential for transistor circuitry. Handles are covered with plastic.

Heavy Duty Model 51E. Built for heavy or open work. Has special copper jaws and will dissipate a terrific amount of heat.
34F491. NET............ **.66**

Model 51G. For small, delicate work. Extremely small—light weight with tweezer like nose.
34F492. NET............ **.58**

Model 51F. 2½" overall Model has a precision tweezer-like nose that enables it to reach into confined areas.
34F493. NET............ **.58**

ANTI-WICKING TWEEZERS



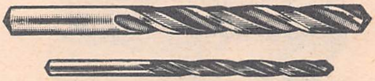
Anti-wicking tweezers, designed to protect plastic insulation on wire while soldering. Assures professional wiring jobs.

Type C-45. 4¾ Regular. Wires 24-26.
34F480. NET............8.18

Type C-46. 4¾ Regular. Wires 20-22.
34F481. NET............8.18

Type C-47. 4¾ Regular. Wires 16-18.
34F482. NET............8.18

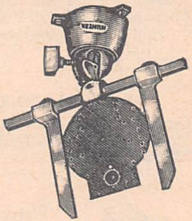
INDIVIDUAL DRILLS



High speed twist drills made to meet high standards of quality, and to provide maximum life with minimum wear.

Stock No.	Drill Size	NET EACH
33F611	⅛"	.22
33F612	5/32"	.24
33F613	3/16"	.30
33F614	7/32"	.39
33F615	¼"	.47
Sizes below have ¼" shanks.		
33F617	5/16"	.84
33F619	⅜"	1.10
33F621	7/16"	1.58
33F623	½"	2.04

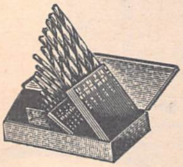
PRINTED CIRCUIT BOARD HOLDER



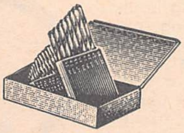
- **For Oral, Square Or Oblong Boards**
- **360° Workable Area**
- **Holds Work In Any Position — Horizontaly or Vertically!**

Designed to hold oval, square, or oblong boards. Between knob on the positioner and printed circuit jig itself, operator can turn work surface 360°. Work can be held horizontal, vertical, or any desired position. Hold tubes up to 48" lengths. Arms 6" long by 8" wide. Shpg. wt .... lbs.
34F448. Type 62H. **NET**............ **13.51**

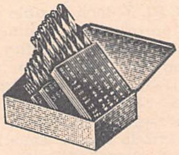
HIGH SPEED DRILL SETS



113C



121C



129C

High quality precision made AMERICAN tools, made to perform speedily and accurately under the most exacting conditions. Champion drills are held to the standards demanded by today's industry and meet all commercial and government specifications. Made in AMERICA by AMERICAN workmen. Ground and heat treated and pointed by the latest and most accurate methods to insure perfect performance.

HIGH SPEED TWIST DRILL SETS

Type 113C. 13 piece high speed drill set complete in metal Huot case. Has drills from 1/16" to ¼" in 1/64" steps. Shpg. wt., 1 lb.
33F625. NET............ **4.22**

Type 121C. 21 piece high speed drill set in metal Huot case. Has drills from 1/16" to ⅜" in 1/64" steps. Sh. wt., 3 lbs.
33F626. NET............ **11.88**

Type 129C. 29 piece high speed drill set in metal Huot case. Has drills from 1/16" to ½" in 1/64" steps Sh. wt., 4 lbs.
33F627. NET............ **24.29**

Type 160C. 60 piece high speed wire gauge drill set. Drill sizes 1 to 60 and metal Huot case included. Shpg wt.. 3 lbs.
33F628. NET............ **15.84**

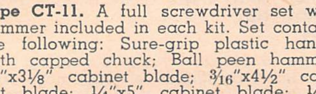
FIVE PIECE DRILL SET WITH ¼" SHANK

5 piece high speed drill set with ¼" shanks. Will drill hole sizes ¼" to ½" without larger chuck. Size ¼", 5/16", ⅜", 7/16", ½" with ¼" diameter shank. Complete with 5 drills and plastic pouch. Extends the usefulness of your ¼" drill. A must for every drill owner. 1 lb.
33F603. NET............ **5.94**

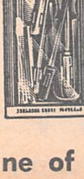
MASONRY DRILL SET

4 piece Carbide tipped masonry drill set. Contains 4 sizes, ¼", 5/16", ⅜" and ½". For use with any ¼" drill. Complete with plastic pouch. A valuable addition to your set of drills that will provide dependable service for those special drilling jobs. Shpg. wt.. 1 lb.
33F604. NET............ **3.38**

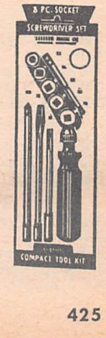
COMPACT TOOL KITS



Type CT-11. A full screwdriver set with hammer included in each kit. Set contains the following: Sure-grip plastic handle with capped chuck; Ball peen hammer; ⅛"x3⅛" cabinet blade; 3/16"x4½" cabinet blade; ¼"x5" cabinet blade; ¼"x 4½" recess blade; 3/16"x4½" recess blade; and a clear plastic tube carrying case with press on cap.
34F665. NET............ **83c**



Type B-1119. A complete variety of tools in one compact package. Has a plastic bubble carrying case. Set includes the following: Amber handle with ¼" chuck; Ball peen hammer; ⅛" x 3⅛" cabinet blade; 3/16" x 4½" cabinet blade; 3/16" x4½" recess blade; ¼"x4½" recess blade; ¼"x5" cabinet blade; ¼" keystone blade; ½" chisel; 3" saw blade; Tack puller; Scratch awl.
34F666. NET............ **1.15**

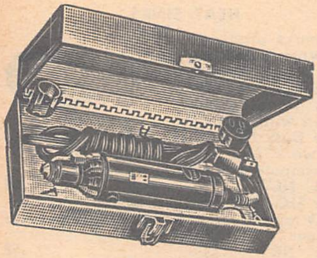


- **Hardened Steel.**
- **Nickel Plated**
- **Lock Grip Chuck**
- **Non-breakable Handle**

Type S-2. Screwdriver set with sockets in one compact package. Essential for use in mechanical shop, garage, home, etc. Set includes the following: Amber handle with 3/16" chuck; 3/16" cabinet blade; 3/16" recess blade; ⅛" cabinet blade; 5 sockets with following sizes: 7/32", ¼", 11/32", ⅜", 7/16".
34F494. NET............ **90c**

POWER TOOLS & WIRE STRIPPERS

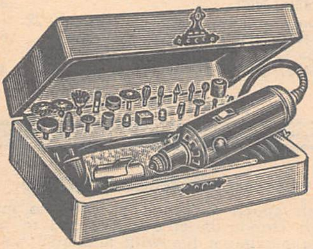
DREMEL POWER TOOLS



DREMEL INDUSTRIAL MOTO-TOOL #3

Model 3. Has 50% increase in power and efficiency over Model No. 2. Designed to cover a wide range of industrial operations including polishing, grinding of dies, molds, pattern making, industrial model building, and production deburring. 27,000 rpm Universal motor, 110-120 VAC or DC. Chuck accomodates 1/16", 3/32" and 1/8" collets. 1 11/16" Dia. x 7½". 1½ lbs.

33F672. Type 3. NET.................. **22.46**



MOTO-TOOL KIT #1

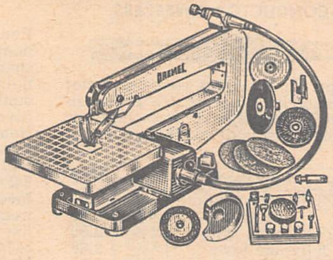
Hand power tool for grinding, drilling, polishing, engraving, sanding, sawing and other operations. Includes: 2 additional Collets (1/16", 3/32"); 1 finger grip attachment; 4 emery wheel points; 1 dressing stone; 8 high-speed steel carving cutters; 1 high-speed steel saw; 3 bristle brushes; 1 steel brush; 1 shoulder mandrel (with sanding discs); 1 screw mandrel (with felt wheel); and 1 drum sander—½". Equally useful at home or in industry. Delivers 27,000 RPM for perfect performance of small wheels and cutters. Universal motor which operates on 110-120 Volt, 60 cycle AC or DC current. With steel carrying case. Shpg. wt., 4 lbs.

33F662. NET.................. **22.46**

34 PC. MOTO-TOOL KIT #1

Similar to above with lighter capacity Moded No. 1 Moto-Tool. Shpg. wt., 3½ lbs.

33F655. NET.................. 19.13



DELUXE MOTO-SHOP

Model 572. Basic unit is a 15" Jig Saw with built-in ball bearing rotary motor and power take off. Accessories include disc sander attachment, cloth buffing wheel, wire wheel brush, grinding wheel, wheel guard, flexible shaft, polishing compound stick, 12 piece accessory set, 1 adapter, 3 sanding discs and 4 saw blades. Jig Saw has large capacity 15'' throat, saw to center of 30'' circle. Table raises and lowers, and tilts. 18 lbs. For 110-120 volts AC.

33F663. NET.................. **37.22**

33F657. Type J-29 Ext. Blades. **NET .45 dz.**

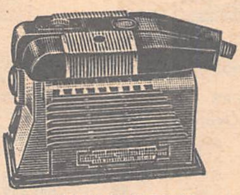
SANDING TOOL

Model B. New hand-size appliance. Tops for sanding — ideal for polishing! "Straight-line" action quickly achieves flawless finish free from scratches and swirls. 13 sq. in. sanding surface. 7200 strokes per min. 6 abrasives, 1 polishing pad. 110-120 v., 60 cy. AC. Shpg wt., 4 lbs.

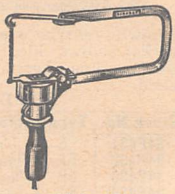
33F658. NET.................. **11.09**

NEW VERSATILE FLEX-O-TOOL

Model. 60. 37-inch flexible shaft is ideal for precision grinding, drilling, carving, routing, sharpening, sanding, polishing, engraving, and many other operations. Use it on wood, metal, plastic—the high-torque, 3450 rpm AC motor is a real workhorse, will not heat up even under long periods of use. Smooth, rugged ball-bearing operation with no brushes or commutator to worry about. Operates on 110-120 VAC, 60 cps. Handpiece is made of nylon, accommodates 1/8", 3/32" and 1/16" collets. Unit is encased in sturdy, die-cast housing finished in chrome and enamel. Even more versatile when used with the accessories listed below. 4253-R and 4253-L, right- and left-hand Tapered Spindles, convert the Flex-O-Tool into a buffer, sander or polisher. 215-C Rubberized Polishing Wheel (3/8"x2½") and 84-M Rubberized Polishing Wheel (¼"x1") can be mounted and the Flex-O-Tool becomes a fine jewelry and lapidary wheel. 8 lbs.



SANDING TOOL



MOTO SAW

MOTO-SAW

Model 203. Cuts intricate scrolls and designs quickly and effortlessly. The operator just guides the saw around the pattern lines. Will cut about 1 foot per minute through wood, plastic or sheet metal. Cuts to the center of a 19'' circle. For 110-120 volt, 60-cycle AC. 3 lbs.

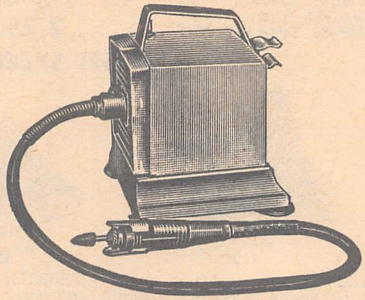
33F656. NET.................. **5.12**

33F657. Type J-29. Extra Blades.
NET per Doz. .... .45

ABRASIVE PAPER FOR SANDING TOOLS

2⅜" x 7"

33F659. Type 2/0 Grit. 2/0
33F660. Type 4/0 Grit. 4/0
33F661. Type 6/0 Grit. 6/0
Pkg. of 25. NET.................. .45



33F654. NET.................. 25.76

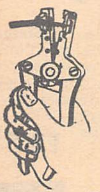
33F664. 4253-R Right Hand Thread Tapered Spindle. **NET**.................. 1.87

33F667. 4253-L Left Hand Thread Tapered Spindle. **NET**.................. 1.87

33F668. 215-C Rubberized Polishing Wheel. **NET**.................. 1.38

33F669. 84-M Rubberized Polishing Wheel. **NET**.................. .22

G-C SPEEDEX WIRE STRIPPERS



Strips insulation from all wires and cables quickly, neatly, and automatically! Merely insert wire into correct notch in jaws . . . then squeeze plier-grip handles. Strips any point on wire. Deluxe models have "stay open" catch to hold jaws apart while removing wire.

DELUXE MODELS

34F600. Type 744H. For 300-ohm twin line.
34F601. Type 744. For 12 to 20 wire.
34F602. Type 744-A. 14 to 30 wire.
NET EACH.................. **5.81**

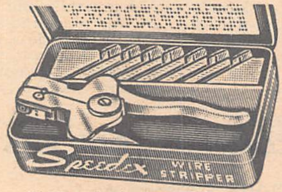
DELUXE DELAYED RETURN MODEL

34F608. Type 766. For 12 to 20 wire.
34F609. Type 766A. 14 to 30 wire.
NET EACH.................. **5.81**

STANDARD MODELS

34F603. Type 733H. For 300-ohm twin line.
34F604. Type 733. For 12 to 20 wire.
34F605. Type 733A. For 14 to 30.
NET EACH.................. **4.67**

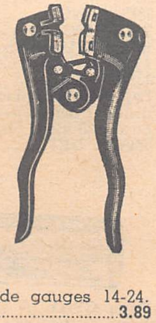
DELUXE WIRE STRIPPER KIT



Type 744K. Includes deluxe delayed return wire stripper, plus interchangeable blade sets for any size wire from No. 30 to No. 8. Also handles 300- ohm ribbon twin lead-in wire. 2¼ lbs

34F606. NET.................. **11.73**

WHIZ WIRE STRIPPER



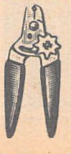
Model 788. Prevents wire jamming — jaws lock open automatically, quick finger tip release. Delayed action return. Will not crush fine or stranded wires. Shpg. wt., 2 lbs. 3-hole blade, gauges 12 thru 22.

33F951. NET..... **3.89**

Model 788-B. 3-hole blade gauges 10-16.
33F952. NET.......... 3.89

Model 788-D. 4-hole blade gauges 14-24.
33F953. NET.................. 3.89

STRIP-ER-CLIPS



A precision tool with an exclusive safeguard that prevents accidental nicking or cutting while wires are being stripped. Features a seven stop gauge which adjusts instantly to the correct wire size. Setting of gauge to protect against damaging wire conductors or strands is easily done with the thumb. Strips and clips all wires ranging from 14 to 26 gauge With heavily insulted grips and streamlined jaws. Shpg. wt., 2 lbs.

33F583. No. 760. **NET**.................. **1.35**

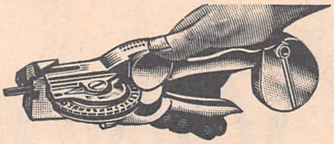
TAPE MARKERS AND R.F. HEATERS

DYMO TAPEWRITER AND ACCESSORIES

DYMO IDENTIFICATION SYSTEM—MAKES PERMANENT LABELS IN SECONDS.

- **Used in industry and offices.**
- **Waterproof—outdoors and indoors**
- **Metal and vinyl tapes available**
- **Horizontal and vertical letters**

An ingenious tool for making permanent embossed adhesive backed labels and tabs right on the job. Simply dial the letter or number and give a light squeeze to the handle and you have a raised label in any color or clear. The high contrast white letters on vinyl tape, are 5⁄32 inches high—A to Z and 0 to 9—seven letters to the inch. Indispensable in every office or factory.



M 22
START
DYMO-MITE TAPEWRITER

MODEL M-22

Model M-22. Tapewriter Type 1022 For Vinyl Tapes Only. Precision embossing tool with Delrin plastic wheel for use on vinyl tapes only. Enables you to make labels and tabs for every use. Tapewriter is of aluminum alloy and chrome finished. Straight cut-off. 10⅜" long and 3½" wide.

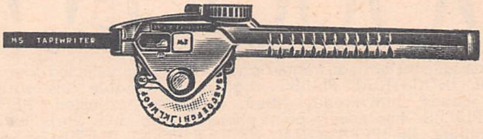
58F647. NET **39.95**

Model M-22. Horizontal/Vertical Embossing Tool Kit. Type 1028. Includes tapewriter, horizontal and vertical embossing wheels, plus quick-change thumb screw and plastic case. Tapewriter of aluminum alloy, chrome finished. Cut-off: straight.

58F643. NET **47.95**

Model M-22. Tool and Tape Kit Type 7025. Everything you need to do all types of labels, lettering across or up and down, lower case, too. Kit includes an M-22 Tapewriter, Lower Case, Horizontal and Vertical Embossing Wheels, 10 rolls of Embossing tape (vinyl) with Delux Texton carry case.

58F646. NET **74.95**



MODEL M5

Model M5. Tapewriter No. 1050. Precision engineered tool which allows you to make permanent, professional, embossed labels anywhere. Just dial words and numbers and operate the tool, they come up instantly on pressure sensitive vinyl tape, white against a colored background. The finished labels are ready to be applied anywhere.

58F600. NET **24.95**

MODEL M-11

Model M-11. Tapewriter No. 1011. Makes metal labels and tags . . . takes only seconds. For use with DYMO metal tapes. Aluminum alloy body, chrome finish. Cut-off: straight with or without hole. Embossing wheel of hardened steel. Horizontal characters: A to Z, 0 to 9; 5⁄32" high. 7 letters to the inch. 10¾" long, 3½" wide.

58F642. NET **49.95**

MODEL M-3 KIT

M-3 Kit. No. 1034. Contains M-3 tapewriter with corner rounding device, hole punch and chrome plated aluminum body as well as interchangeable horizontal and vertical wheels to allow you to make labels which read up and down or across.

58F612. NET **67.95**

TAPES

Tapes for the Dymo Tapewriter are available in both metal and vinyl. Seven different metals as well as eight colors plus clear in vinyl.

TAPE 5201 FOR M-5 TAPEWRITER

In disposable magazines. ⅜x120".

Stk. No.	Color	Stk. No.	Color	Stk. No.	Color
58F601	Red	58F605	Grey	58F608	Brown
58F602	Black	58F606	Yellow	58F609	Gold
58F603	Blue	58F607	Orange	58F610	Clear
58F604	Green				

Sold in Boxes of 5 Cartridge rolls.
NET per Box of one color 6.25

TYPE 158 12' TAPE

Stk. No.	Color	NET
58F613	Red	1.65
58F614	Black	
58F615	Blue	
58F616	Green	
58F617	Grey	

Stk. No.	Color	NET
58F618	Yellow	1.65
58F619	Orange	
58F620	Brown	
58F621	Clear	
58F640	Gold	
58F641	Purple	

Type 158-A. Assortment of 12 Tape Colors. 3 rolls each of Black and Red; one roll each of Gray, Blue, Green, Brown, Yellow and Orange.

58F645. NET 19.80

Type 171 12' Striped Tape w/ gold border.

Stk. No.	Color	NET/Roll
58F622	Red	1.95
58F623	Black	
58F624	Blue	
58F625	Green	
58F629	Brown	

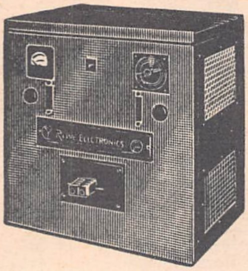
METAL TAPE

Permanent metal tape. All are without adhesive except * which have adhesive. Black stripe †. ½" wide.

Stk. No.	Type	L.	NET
58F631	Aluminum	16'	.65
58F632	Copper*	12'	1.75
58F633	Stn. Steel	21'	1.25
58F634	Copper	21'	.75
58F635	Monel	21'	1.50
58F636	Aluminum*	12'	1.65
58F637	Zinc	15'	.85
58F638	Aluminum*†	10'	1.65
58F639	Aluminum†	16'	.95

REEVELEC

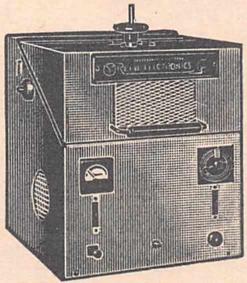
INDUCTION GENERATOR



Model L4D. 1 kw induction generator ideal for brazing, annealing, soldering and hardening of small parts. It works with ferrous or non-ferrous metals and does not require skilled labor. Off-on and overload switches are located on the front panel. A green light indicates when unit is ready for operation. Forced air and water cooling. Power input 2.2KVA at 90% power factor. 115/230VAC. 21x16x31". 180 lbs.

58F590. NET 995.00

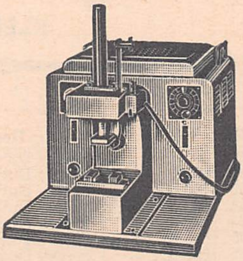
PREHEATER



Model C6C-P. Designed for molders of small critical loads but with enough capacity for many jobs which are now done on larger units. Can be placed on table or bench. Removable front panel. Slide-out power supply and detachable platens for easy cleaning. Output: 1 KW max. Platen size: 6x6". A fluorescent lamp indicates power on and illuminates the load. Size: 17x17x20". Shpg. wt.: 115 lbs.

58F591. NET 950.00

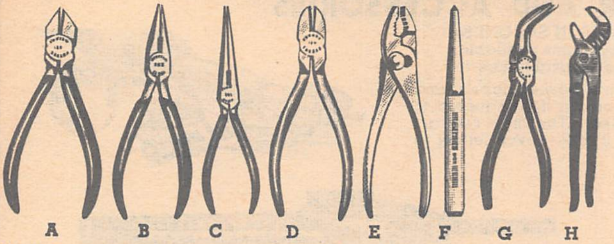
PLASTIC SEALER

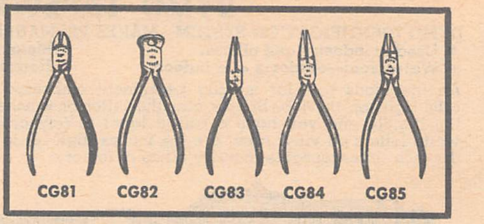


Model C-63. 1 KW Plastic Sealer. Ideal for laboratory work and small production applications such as sealing penholders, card holders, key cases, etc. Features 15 sec. automatic timer, post-seal dwell timer, foot actuated or automatic power on switch, grid plate current meter and filament voltage indicator, RF power indicator. AC and DC circuit breakers and door interlock switch. 18x26x20". 130 lbs.

58F592. NET 950.00

KRAEUTER TOOLS FOR INDUSTRY AND ELECTRONICS





Each Kraeuter tool is heat-treated and forged from selected fine grain tool steel. INDUSTRIAL PLIERS—rugged, serviceable line with full polished heads; individually fitted, tempered, adjusted. PROFESSIONAL PLIERS—fine needle point pliers for electronic work, jewelers, hobby crafters. PROFFESSIONAL NEEDLE POINT PLIERS—extra fine needle points for exacting professional and production line use. Factory applied Cushion Grip handles will not crack or peel, resists water, oil. acid, chemicals. 9 lbs. per dozen. †nickel plated *not cushion grip.

No.	Type	Fig.	Description	1-5	6-up
34F076	CG5601	A	4½" Needle-pt. diag. cutters	**3.12**	**2.67**
34F077	CG5601	A	5" Needle-pt. diag. cutters	**2.94**	**2.83**
34F078	CG5601	A	6" Needle-pt. diag. cutters	**3.67**	**3.33**
34F079	CG825	B	5" Med. Nose Ndle-pt. w/cutter	**3.46**	**3.13**
34F080	CG826	B	6" Long Nose Ndle-pt. w/cutter	**3.61**	**3.27**
34F081	CG827	C	7" Long Nose Ndle-pt. w/cutter	**4.17**	**3.79**
34F082	CG837	C	7" Long Nose Ndle-pt. w/o cttr.	**3.31**	**3.00**
34F058	*356†	E	5½" Griptite comb. pliers	**2.06**	**1.87**
34F130	*056	E	Hi-Brite 6" Comb. Plier	**.73**	**.65**
34F059	CG4501	D	5" Diag. Oblique cutters	**2.58**	**2.33**
34F060	CG4501	D	6" Diag. Oblique cutters	**2.94**	**2.67**
34F063	CG1631	G	5½" Snipe-nose pliers	**3.08**	**2.79**
34F064	CG1661	B	6" Long-Chain Ndle-nose w/cttr.	**2.94**	**2.67**
34F120	CG1663	B	6" Radio, Ignition Nose cutter	**3.56**	**3.23**
34F065	CG1671	B	6" Radio, Ignition Nose cutter	**2.20**	**2.00**
34F069	CG23	F	⅜x4½" Steel Center Punch	**.55**	**.49**
34F118	CG710	H	10" Tongue-in-groove	**2.75**	**2.49**
34F145	C-CG-101	A	4½" Needlept. Diag. Cutters with spring.	**3.67**	**3.33**
34F146	C-CG-140	C	6" Tapered Long Nose-1/32" tip with spring.	**3.31**	**3.00**
34F147	C-CG-160	C	7" Extra fine Long Nose 1/16" tip with spring.	**2.79**	**2.53**
34F151	C-CG-4625	A	5" Needle-pt. Diag. Cutter with spring.	**3.66**	**3.32**
34F149	CG-707	H	7" Tongue-n-groove	**2.21**	**2.00**
34F150	CG-714	H	14" Tongue-n-groove	**3.30**	**3.00**

JEWELERS' PLIERS

Fine small precision pliers, matched in size and handle-shape for accurate and exacting work. These pliers are drop forged from selectd fine grain tool steel, accurately machined and heat treated to exacting specifications. Selected type. most generally used by watchmakers—jewelers—hobbycrafters—model builders—inventors—and in the diversified field of electronics. Wt., 5 oz.

No.	Type	Description	1-5	6-up
34F070	CG81	Diagonal Cutters	**2.65**	**2.40**
34F071	CG82	End Cutting Nippers	**3.12**	**2.83**
34F072	CG83	Chain Nose Pliers	**2.48**	**2.27**
34F073	CG84	Flat Nose Pliers	**2.48**	**2.27**
34F074	CG85	Round Nose/Jaw Pliers	**2.48**	**2.27**

CG 89 PLIER SET

Three jeweler's pliers in Black Zipper Case. Size 5¾x6¼" when closed. One each Nos. CG-81, CG-83 and CG-84. Wt., ¾

34F131. NET.......................................9.55

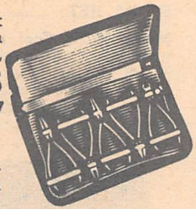
6 up, NET.......................................8.67

CG 90 PLIER SET

Five jeweler's pliers in Black Zipper Case. Size 5¾x9¼" when closed. One each Nos. CG-81. CG-82, CG-83, CG-84 and CG-85. Weight, 1 lb.

34F132. NET.......................................14.70

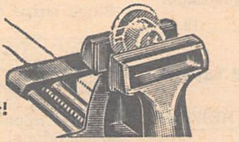
6 up. NET.......................................13.33



No. 90

LITTLE WONDER ZYLYSS—UNIVERSAL VISE

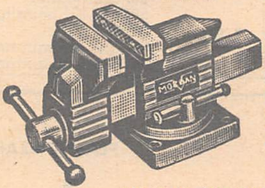
- **A Vise!**
- **A Clamp!**
- **Holds anything!**



A 100% universal and adjustable vise. Works anywhere . . . fits anywhere. Suitable for steel, wood, plastics, glass or any other type of material. Heavy duty, but light weight and completely portable. It will handle material of any length. Wt. 10 lbs.

33F595. NET.......................................15.95

- **Extra large steel siding bar**
- **Hardened steel jaw faces**



MORGAN UTILITY

High quality utility vises ideal for home workshop or service shop. Sturdily made of close grained gray cast iron, with extra large steel sliding bar. Removable hardened steel jaw faces, cut-off tool, and swivel base are features of these vices.

Type 4. Jaws are 4" wide and open to 4". Shpg. wt., 20 lbs.

33F581. NET.......................................12.80

Type 5. Jaws are 5" wide and open to 5". Shpg. wt., 30 lbs.

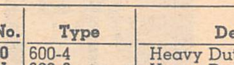
33F582. NET.......................................14.60

"Homecraft" vise. Built to same standards as Utility Line except that it has a ¾"x¾" steel slide bar and built-in pipe jaws.

Type 25. Jaws are 3½" wide and open to 3½". Shpg. wt., 11 lbs.

33F579. NET.......................................5.87

KLEIN "CUSTOM" CUSHION GRIP SCREWDRIVERS

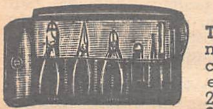


Made of alloy tool steel, carefully heat treated. Full chrome-plated finish prevents rust. Amber plastic shock-proof handle is nonflammable and secured to steel shaft. Has bolstered heavy-duty blade and winged shaft. 50% greater torque.

Stock No.	Type	Description	Blade Size	NET
34F100	600-4	Heavy Duty Square Shank	4x¼"	**1.00**
34F101	600-6	Heavy Duty Square Shank	6x5/16"	**1.33**
34F102	600-8	Heavy Duty Square Shank	8x⅜"	**1.60**
34F103	602-3	Heavy Duty Round Shank	3x3/16"	**.90**
34F104	602-4	Heavy Duty Round Shank	4x¼"	**.90**
34F105	602-6	Heavy Duty Round Shank	6x5/16"	**1.13**
34F106	602-8	Heavy Duty Round Shank	8x⅜"	**1.40**
34F107	601-3	Electrician & Telephone Round Shank	3x3/16"	**.73**

Stock No.	Type	Description	Blade Size	NET
34F108	601-6	Electrician & Telephone Round Shank	6x3/16"	**.77**
34F109	601-8	Electrician & Telephone Round Shank	8x3/16"	**.80**
34F110	601-10	Electrician & Telephone Round Shank	10x3/16"	**.90**
34F111	603-3 #1 pt.	Super Hard Phillips	3x3/16"	**.73**
34F112	603-4 #2 pt.	Super Hard Phillips	4x¼"	
34F085	604-3	Plastic Handle Screwdriver Without Cushion Grip	3x3/16"	**.93** **.50**

POCKET TOOL ROLL



Type 1305-33A

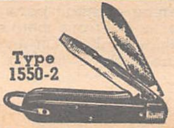
Type 1305-33A. 1 pr. side cutting pliers, nose and oblique cutting pliers, electrician's tweezers. Also file, screwdriver, electrician's knife. Size rolled: 8x2½". Wt., 2 lbs.

34F047. NET.......................................16.07

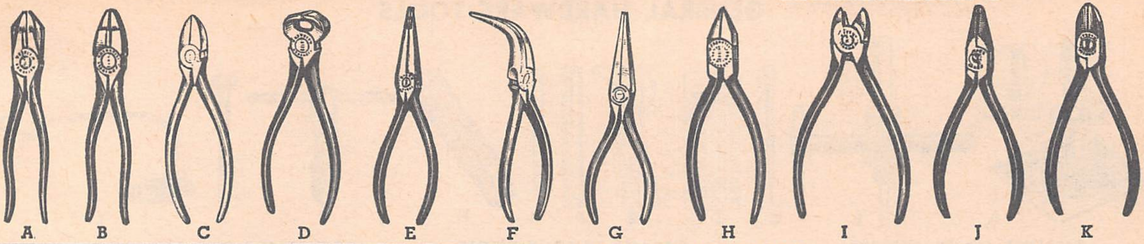
ELECTRICIAN'S KNIFE

Type 1550-2. Knife and screwdriver blades of carefully tempered, high-grade cutlery steel. Locking feature on screwdriver. Handle of durable plastic. Shipping wt., 5 oz.

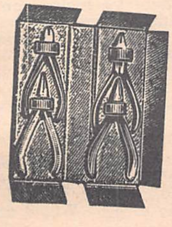
34F022. NET.......................................1.80



ELECTRICIANS TOOLS MATHIAS KLEIN & SONS



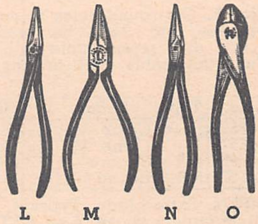
4 PIECE PLIER KIT



Model No. 1305. All-purpose kit containing 4 top quality drop forged, high grade alloy tool steel pliers. Each individually fitted, tempered, adjusted and tested for maximum performance. Kit includes: 1 No. D-257-4 Oblique Cutting Pliers, 1 No. D224-4½ End Cutting Pliers, 1 No. D321-4½ Long Nose Pliers, 1 No. D-323-4½ Duck Bill Pliers. Top grade leatherette case. Shpg. wt., ¾ lb.
34F127. NET **10.20**

TOOLS FOR RADIO MEN—ELECTRICIANS

All tools have dipped plastic handles except 34F000 and 34F001. All Klein Pliers are hammer forged from high-grade alloy steel. These tools are available in types and sizes to fit all radio and electrical applications. Plier heads are highly polished and handles are tempered blue. 34F014 is equipped with the point only 1/16" dia. 34F024 has a pointed nose and extremely narrow head. Av. shpg. wt., 9 oz.



KLEIN PLIERS AND CUTTERS

No.	Type	Fig.	Description	NET
34F026	D201-5	A	5" Side Cutter	**2.67**
34F000	201-6 NE	B	6" Streamlined Side Cutter	**2.83**
34F001	201-8 NE	B	8" Streamlined Side Cutter	**3.53**
34F003	D202-5	C	5" Narrow-Nosed Oblique Cutter	**2.50**
34F004	D202-6	C	6" Narrow-Nosed Oblique Cutter	**2.57**
34F005	D202-5 SW	C	5½" Bell System Oblique Cutter	**3.10**
34F006	D242-6	C	6" Heavy-Duty Oblique Cutter	**2.70**
34F008	D301-5	....	5" Long Nose Pliers	**2.20**
34F009	D301-6	....	6" Long Nose Pliers	**2.23**
34F010	D301-7	....	7" Long Nose Pliers	**2.37**
34F011	D203-5	....	5" Long Nose Side Cutter	**2.47**
34F012	D203-6	....	6" Long Nose Side Cutter	**2.57**
34F013	D203-7	....	7" Long Nose Side Cutter	**2.90**
34F014	D303-6	....	6" Long Needle Nose Pliers	**2.27**
34F015	D305-6	G	6" Long Flat Nose Pliers	**2.37**
34F016	D302-6	F	6" Long Curved Nose Pliers	**2.70**
34F017	D301-6P	E	6" Long Nose Plier/Knife Point	**3.07**
34F024	D209-5	H	5" Oblique Cuters	**2.83**
34F025	D307-5½	....	5½" Long Nose Pliers	**2.27**
34F029	D301-6-SCP	....	6⅝" Needle Nose Pliers	**2.67**
34F030	D203-6-SCP	....	6⅝" Needle Nose Pliers	**3.00**
34F090	D224-4½	J	4⅝" Midget end cutting plier	**2.47**
34F092	D257-4	K	4 3/16" Mid. oblique cut. plier	**2.07**
34F094	D321-4½	M	4¾" Midget long nose plier	**2.00**
34F096	D322-4½	M	Same as321-4½but without knurl	**2.00**
34F114	D314-8	N	8" Long nose plier	**2.57**
34F115	D315-8	L	8" Duck bill plier	**2.57**
34F117	D228-8	O	8" Hi-Lever. Diag. cutting plier	**2.63**
34F123	D318-5½	....	5 25/32" Long Needle Nose Plier	**2.30**
34F124	D310-6	....	6⅝" Slim Long Nose Plier	**2.20**
34F036	D510	....	9½" Pump Plier	**2.50**

KLEIN PLIERS AVAILABLE WITH COIL SPRING

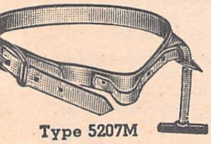
The pliers listed here come with plated coil spring to hold the jaws in open position. The sturdy spring is guaranteed for the life of the plier. Inside and outside are left free of any obstruction due to the spring. Long nose pliers have 1/16" diameter points. 203-6C and 203-6-SCP have side cutting knives. 052-C cuts the wire on printed circuits and crimps the end to keep wire in place, permitting efficient dip soldering.

No.	Type	Fig.	Description	NET
34F032	D301-6P-C	E	6⅝" Long Nose Plier/Knife Point	**3.27**
34F033	D317-6P-C	E	6" Long Nose Plier/Knife Point	**3.07**
34F034	D301-6-SCP-C	....	6⅝" Needle Nose Plier	**2.87**
34F035	D203-6-SCP-C	....	6⅝" Needle Nose Plier	**3.20**
34F020	D203-5-C	....	5½" Long Nose Side Cutting Plier	**2.67**
34F021	D203-6-C	....	6⅝" Long Nose Side Cutting Plier	**2.77**
34F028	D209-5C	H	5" Oblique Cutting Plier	**3.03**
34F018	D202-5-C	C	5½" Oblique Cutting Plier	**2.70**
34F019	D202-6-C	C	6" Oblique Cutting Plier	**2.77**
34F027	D052-C	I	5" Printed Circuit Cutting Plier	**2.80**
34F044	D208-6C	....	6½" Shear Cutting Plier	**3.00**
34F075	D208-6NC	....	6½" Shear Cutting Plier puts positive 3/16" hook on end of wire	**3.03**
34F088	078K	....	Blade & Screw for 208 (6C & 6NC)	**.67**
34F087	D207-5C	....	Shear Cutting Oblique Cutters	**3.00**
34F089	077K	....	Blade and Screw for 207-5C	**.67**
34F113	D322-4½C	M	4¾" Midget long nose plier	**2.20**
34F091	D224-4½C	J	4⅝" Midget end cutting plier	**2.67**
34F093	D257-4C	K	4 3/16" Mid. oblique cut. plier	**2.27**
34F095	D321-4½C	M	4¾" Midget long nose plier	**2.20**
34F125	D229-4C	....	4 3/16" Wire Gripping oblique cutter	**4.40**
34F126	D229-5C	....	5" Wire Gripping oblique cutter	**4.40**
34F128	D310-6C	....	6⅝" Slim Long Nose Plier	**2.40**

SLIP-ON PLIER HANDLES

Slip-on plastic.

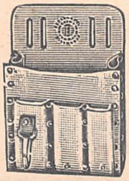
Stock No.	Style	Description	NET Per Pair
34F133	34 red	To fit 4"-4½" pliers	**.10**
34F134	34 yellow	To fit 4"-4½" pliers	**.10**
34F135	34 green	To fit 4"-4½" pliers	**.10**
34F136	34 blue	To fit 4"-4½" pliers	**.10**
34F137	35 red	To fit 5"-5½" pliers	**.12**
34F138	35 yellow	To fit 5"-5½" pliers	**.12**
34F139	35 green	To fit 5"-5½" pliers	**.12**
34F140	35 blue	To fit 5"-5½" pliers	**.12**
34F141	36 red	To fit 6"-6½" pliers	**.13**
34F142	36 yellow	To fit 6"-6½" pliers	**.13**
34F143	36 green	To fit 6"-6½" pliers	**.13**
34F144	36 blue	To fit 6"-6½" pliers	**.13**



Type 5207M

ELECTRICIANS' WAIST BELT

Lightweight. Made of harness leather with tool loops and tape thong.
34F041. Type 5207M. 32-40". NET.....4.00
34F042. Type 5207L. 38-46". NET..........4.40



Type 5127

COMBINATION TOOL POUCH

Type 5127. Has gusseted utility pocket, three plier pockets, two screwdriver pockets, and knife snap. May be used with 5207 waist belt. 7"x10". Wt., 12 oz.
34F086. NET **4.85**

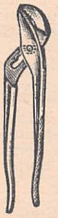
ELECTRICIAN'S SCISSORS

Type 2100-5. 5" scissor. Will stand rugged service. High-grade steel, tempered. Nickel plate finish. Wt., 6 oz.
34F023. NET..**2.05**

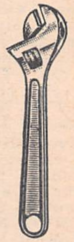
KLEIN PUMP PLIERS

Jaws are positioned and locked into place for desired size opening by engaging a tongue in proper groove. Furnished with yellow plastic handles. Av. shpg. wt. 2 lbs.

Stk. No.	Type	Length	Max. Cap.	NET
34F097	D502-10	10 in.	1¼ in.	**2.47**
34F098	D502-12	12 in.	2⅛ in.	**2.77**
34F099	D502-16	16 in.	4¼ in.	**3.67**



Type 502



Type 500

ADJUSTABLE WRENCHES

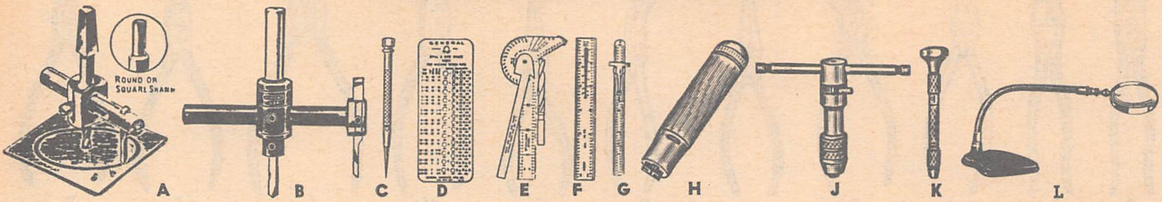
Type 500. Adjustable end wrenches for any purpose. Drop forged, chrome plated.
34F129. D500-4. ½" capacity x 4"..........2.13
34F037. D500-6. ¾" capacity x 6"..........2.20
34F038. D500-8. 15/16" capacity x 8"..........2.50
34F039. D500-10. 1⅛" capacity x 10"....3.13
34F040. D500-12. 1 5/16" capacity x 12"....4.60

HIP POCKET TOOL CASE

Type 5111. Safe way for carrying sharp or pointed tools; keeps tools handy. Harness leather. Size: 5x7". Wt., 6 oz.
34F048. NET..**2.75**

Type 5111

GENERAL HARDWARE TOOLS



QUALITY CIRCLE CUTTERS

Fig. A. Cut round holes in metal, wood, bakelite, etc. May be used in slow speed drill press, hand drill or brace. Fully adjustable. Drill acts as pilot. Wt., 8 oz.

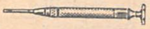
No.	Type	Shank	Size	NET
34F570	JR-00	Comb. ¼"	⅝" to 2½"	1.16
34F571	4	Comb. ¼"	⅞" to 4"	1.65
34F572	5-A	Square	1" to 5½"	2.25
34F573	5-B	Round 5⁄16"	1" to 5½"	2.25

34F574. Extra blade. Types 4, 5-A or 5-B circle cutters above. 4 oz. **NET** .50

Fig. B. Type 55. Cuts holes from 1¾" to 8" dia. Made of tool steel with Jessup cutting bits. ¼-20 hollow set screws give position adjustment. Drill acts as pilot. Has ½" shank to fit ½" chuck. Set screw wrench included. Shipping wt., 8 oz.

34F575. NET **4.71**

34F576. Extra blade for above. **NET** .75

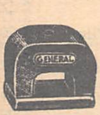


JEWELERS' SCREWDRIVER SET

Type S-600. Set of six. Sizes: .1", .08", .07", .055", .04" and .025". Swivel head with removable blade. 3¾" long. ½ lb.

34F577. NET **3.47**

ALNICO POWER MAGNETS



Extremely high magnetic pull for uses in labs, schools, workshops. etc. Lifts, sorts, or retrieves steel and iron parts. Hole in top permits attaching a bolt, screw or rod. Red lacquer finish, and nickel plated keeper.

34F440. Type 370-2. 2-Oz. **NET** .99

34F441. Type 370-4. 4-Oz. **NET** 1.73

34F442. Type 370-6. 6-Oz. **NET** 2.40

CHASSIS LAYOUT TOOLS

Model 83. Fig. C. Pocket Scribe. Hex head, steel case, locking chuck. 2¼" tapered point may be reversed. Size, 4¾".

34F560. NET .60

Model 15. Fig. D. Drill and Wire Gauge. Decimal equivalents for sizes 1 to 60. Lists taps and body drill sizes ¼-28 to 2-56.

34F561. NET 1.41

Model 16. Fig. E. Multi-Use Rule & Gauge. A 4" rule in 32nds and 64ths, drill point gauge, square, bevel protractor, center finder, circle divider, tap drill table. In leather case. Wt., 4 oz.

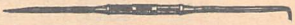
34F562. NET **1.41**

Model 310. Fig. F. 6" Steel Rule and Wire Gauge. Gives 32nd and 64th graduations, B and S wire gauge and decimal equiv.

34F563. NET .44

Model 301. Fig. G. 6" Pocket Rule and Depth Gauge. Only ¼" wide. Gives readings in 64ths. With handy pocket clip.

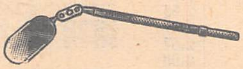
34F564. NET .12



MACHINISTS' SCRIBER

Model 80. Two-pointed scriber with knurled finger-hold. Bent point on one end 9" long. Wt., 3 oz.

34F559. NET **.42**



INSPECTION MIRROR

Type 558. 2"x1" oval inspection mirror. Adjustable 6" knurled brass plated handle.

34F443. NET **1.05**

ADJUSTABLE FILE AND TOOL HOLDER

Fig. H. Model 890. Ideal for factory and home workshop. Holds hacksaw blades, files, knife blades, reamers, scriber points, etc., in a vise-like grip. Knurled knob assures easy and positive locking. Wt., 8 oz.

34F578. NET **.80**

RATCHET TAP WRENCH

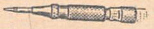
Fig. J. Model 160R. Made of hardened and tempered tool steel. Self-equalizing jaws, positive ratchet, sliding-T-handle. Opening capacity: 3⁄32 to 7⁄32". Wt., 8 oz.

34F579. NET **3.14**

HAND DRILL AND PIN VISE

Fig. K. Model 92. A precision tool with two reversible collets for holding drills, taps, wire, etc. from the smallest size up to ⅛". Has large free-wheeling swivel head. Size: 4" long, 5⁄16" body dia., ¾" head. Wt., 5 oz.

34F580. NET **1.20**

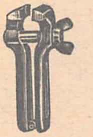


Automatic Center Punch. Type 79. Of shock resistant alloy steel. Pressure adjustable. Tips replaceable. 5x½" dia. 5 oz.

34F565. NET **3.14**

34F566. Type 79P. Extra point. **NET** .42

MACHINISTS HAND VICE



Model 815. Ideal for jobs where portability and flexibility are desired. Hard steel knurled jaw faces grip any object securely and safely. Non-protruding screw permits working close to an object. Wt., 1 lb.

34F444. NET **2.40**

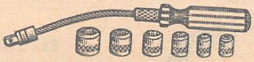
● *NEW* 549-4 ADJUSTABLE INSPECTION MAGNIFIER

Fig. L. 4" powerful ground and polished lens. 12" chrome plated adjustable Gooseneck Arm. Ball joint swivel permits easy adjusting. Sturdy cast-iron base for bench or table use. Wt., 4 lbs.

34F620. NET **6.60**

JAW MFG. CO.

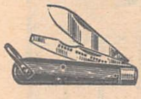
FLEXIBLE HEX WRENCH SET



Ideal for reaching places inaccessible to straight or offset tools. Includes one Hex Flexible Drive, 7¼" long and six Hex Sockets with openings measuring: 11⁄32", ¼", 5⁄16", ⅜", 7⁄16", ½". 12 oz.

34F632. NET **2.47**

ULSTER ELECTRICIAN'S KNIFE

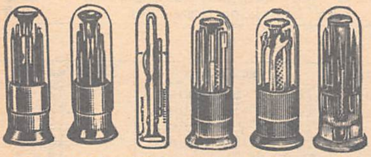


Type K29. Two blades, spear and screwdriver wire scraper. Center safety-lock, brass linings, steel bolsters and shackle. Spear blade full mirror polished. Mahogany colored plastic handle. 3¾ inches long. Shpg. wt.: 4 oz.

34F122. NET, 1-11, Each **1.35**

Dozen lot, Net each 1.25

MOODY "TINY" TOOL SETS


SC-5 PA-5 SH-2 BW-5 OE-5 TS-5

Type SC-5. Jewelers' Screwdriver 6 Piece Set. Perfect for dismantling small assemblies. Five interchangeable rust-resistant blades fit universal swivel-top handle. Sizes include .055", .070", .080" and .100". Complete with awl with colorful plastic stand and cover. 7 oz.

33F475. NET **1.03**

Lots of 12, Each 97c

Type SH-2. Screw-Holding Screwdrivers. Swivel-top handle takes 2½" or 1¾" blade, plus screw-holding clip. Holds tiny screws better than fingers. Shipping weight, 8 oz.

33F477. NET **88c**

Lots of 12, Each 73c

Type OE-5. Offset Open End Wrench Set. 5 tiny offset open end wrenches. Made of tough heat treated steel. Wrenches are completely interchangeable in the chuck-type handle. Ideal for all types of tiny nuts found in electrical and other small devices. Wrench Sizes: 5⁄64", 3⁄32", 7⁄64", ⅛" and 5⁄32".

33F474. NET 1.64

Lots of 12, Each 1.47

Type PA-5. Miniature Phillips and Allen 6 Piece Set. Contains two smallest-size Phillips screwdrivers, plus three tiny Allen-type wrenches . . . all interchangeable in swivel-top universal handle. You get: Phillips #0 and #1, plus Allen Nos. 4, 6 and 8. Shpg. wt., 7 oz.

33F476. NET **1.64**

Lots of 12, Each 1.47

Socket Wrench Set. 5 interchangeable tiny hex socket wrenches. All fit the same handle. Enables inserting or removing tiny nuts from hard-to-get-at places. Wrench sizes: 5⁄64", 3⁄32", 7⁄64", ⅛". and 5⁄32".

Type SW-5. Non-Magnetic handle.

33F472. NET **2.28**

Lots of 12, Each 2.06

Type BW-5. With Magnetic handle.

33F473. NET 2.58

Lots of 12, Each 2.32

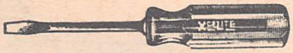
● *NEW* TS-5 TINY TAP SET

The newest addition to the Moody Kit sets. Tough, heat treated steel tap tool set is ideal for cutting tiny inside threads on any number of small items. Tap sizes are 0-80, 1-72, 2-56. 3-48, 4-40. The knurled chuck type handle has a torque hole for steady firm leverage. Shpg. wt., 8 oz.

33F478. NET **3.23**

Lots of 12, Each 2.91

TOOLS XCELITE®



SHOCK-PROOF SCREWDRIVERS

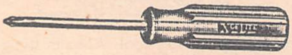
A quality line of screwdrivers with blades of chrome Vanadium electric furnace steel. Tips ground to rectangle shape. Handles are amber plastic. *Have ½″ dia. handles. †Have ¾″ dia. handles. ‡Stubby types. 8 oz.

SQUARE BLADES

Stk. No.	Type	Blade Size	NET
34F276	S-141‡	¼x1¼″	.51
34F275	S-3161‡	3/16x1″	.45
34F203	S-3163	3/16x3″	.66
34F204	S-3164	3/16x4″	.69
34F205	S-3166	3/16x6″	.81
34F206	S-3168	3/16x8″	.90
34F207	S-31610	3/16x10″	.99
34F208	S-142	¼x2″	.75
34F209	S-144	¼x4″	.87
34F210	S-146	¼x6″	.93
34F211	S-148	¼x8″	1.02
34F212	S-5162	5/16x2″	.81
34F213	S-5166	5/16x6″	1.05
34F214	S-5168	5/16x8″	1.14
34F217	S-388	⅜x8″	1.38
34F218	S-3812†	⅜x12″	1.98
34F219	S-3818†	⅜x18″	2.13

ROUND BLADES

Stk. No.	Type	Blade Size	NET
34F250	R-3322*	3/32x2″	.24
34F251	R-3323*	3/32x3″	.27
34F252	R-3324*	3/32x4″	.27
34F254	R-182	⅛x2″	.33
34F253	R-183*	⅛x3″	.27
34F255	R-184†	⅛x4″	.39
34F256	R-186†	⅛x6″	.42
34F257	R-188†	⅛x8″	.54
34F258	R-1810†	⅛x10″	.60
34F259	R-5323	5/32x3″	.45
34F260	R-5324	5/32x4″	.45
34F261	R-5325	5/32x5″	.45
34F262	R-5328	5/32x8″	.60
34F263	R-3163	3/16x3″	.57
34F264	R-3164	3/16x4″	.63
34F265	R-3166	3/16x6″	.72
34F266	R-3168	3/16x8″	.84
34F267	R-31610	3/16x10″	.90
34F269	R-144	¼x4″	.78
34F270	R-146	¼x6″	.84
34F271	R-148	¼x8″	.90
34F272	R-1410	¼x10″	.96
34F273	R-5166	5/16x6″	.99
34F274	R-5168	5/16x8″	1.08
34F277	R-181	⅛x2″	.24

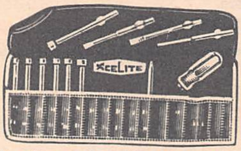


PHILLIPS SCREWDRIVERS

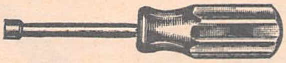
Screwdrivers for Phillips-head screws, of special alloy steel. Av. wt., 5 oz. P12S Pocket Size.

Stock No.	Mfrs. Type	Point Size	Blade Lgth.	NET EACH
34F290	X-101	1	3″	.69
34F291	X-102	2	4″	.87
34F292	X-103	3	6″	1.17
34F293	X-104	4	8″	1.47
34F294	X108	1	6″	.75
34F295	X-1010	1	10″	1.05
34F296	X-1020	2	10″	1.17
34F287	SX-101	1	1 7/16	.63
34F288	SX-102	2	1 5/16	.69
34F289	P12S	0	2″	.39

NUT & SCREW-DRIVER KIT



Type 99-JR. Handy pocket-sized set that contains seven most-needed nut-drivers, plus two slotted and two Phillips screwdrivers. Bright chrome-plated blades fit interchangeably into sturdy plastic handle. With tool roll. Wt. 4 lbs.
34F389. NET **7.50**

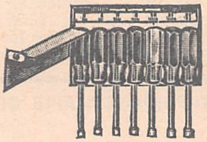


NUT-DRIVERS

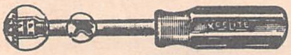
Most popular sizes. 6″ long over all. Made of hardened and polished tool steel. Amber plastic handles. Av. wt., 4 oz.

Stk. No.	Type	Nut Size	NET
34F300	6	3/16″	.75
34F301	7	7/32″	
34F302	8	¼″	
34F303	9	9/32″	
34F304	10	5/16″	
34F305	11	11/32″	
34F306	12	⅜″	
34F307	14	7/16″	.96
34F308	16	½″	

DELUXE NUT-DRIVER SET



Type 127. Spin-type wrenches with color-coded plastic handles which indicate size. Sockets are deep enough to handle two nuts. Seven wrenches from 3/16″ to ⅜″, in 1/32 steps. With metal holder. Wt., 3 lbs.
34F391. NET **6.45**

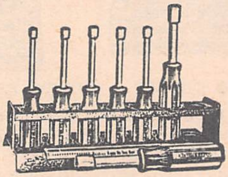


HOLLOW SHAFT NUT-DRIVERS

Handy tools with extra-long hollow shafts. Ideal for use where nuts must be installed or removed over long protruding bolts or studs. Simplify installations of volume controls and panel equipment. Finely-tempered and finished steel shafts have a hollow depth of 5″. *Volume control wrench. Shpg. wt., 6 oz.

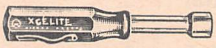
Stk. No.	Type	Nut Size	Lgth.	NET
34F319	HS-8	¼″	6″	.93
34F320	HS-10	5/16″	6″	
34F321	HS-11	11/32″	6″	
34F322	HS-12	⅜″	6″	
34F323	HS-14	7/16″	7″	1.05
34F324	HS-16	½″	7″	1.08
34F325	HS-18*	9/16″	7″	1.14
34F326	HS-20*	⅝″	7″	1.26

SUPER NUT-DRIVER SET



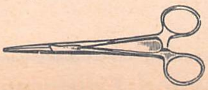
Type 137. Seven plastic handle wrenches mounted on a sturdy metal stand. Handles are color-coded to indicate sizes. Nut-driver sizes: 3/16″, ¼″, 5/16″, 11/32″, ⅜″. Hollow shaft nut drivers are included in ½″ and 9/16″ sizes. Shipping weight, 2 lbs.
34F392. NET **7.17**

POCKET STYLE NUTDRIVERS



Xcelite nutdrivers are all quality hand tools designed for perfect performance. All shafts are highly polished with precision formed sockets. All handles are color coded. Sturdy pocket clips.

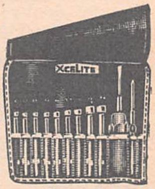
Stk. No.	Type	Size	Handle	NET
34F330	P4	⅛″	Red	.48
34F331	P5	5/32″	Amber	
34F332	P8	¼″	Red	
34F333	P10	5/16″	Amber	
34F334	P12	⅜″	Blue	



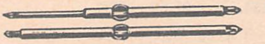
XCELITE STAINLESS STEEL "SEIZER"

For holding wires or retrieving small items. Shpg. wt., 6 oz.
34F370. 42H. Straight Nose **3.80**
34F371. 43H. Curved Nose **3.93**

MULTI-PURPOSE KIT



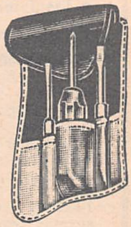
Type 99 PR. 12 tools in plastic roll. Consists of 9-nut-driver shafts, 1-double-ended screwdriver shaft, 1-type 99-82 reversible Phillips screwdriver blade, and 1-combination plastic handle for all units. Nut-driver sizes: 3/16″, 7/32″, ¼″, 9/32″, 5/16″, 11/32″, ⅜″, 7/16″, and ½″. Screwdriver sizes: 3/16″ and 9/32″; Phillips Nos. 1 and 2. Wt., 3 lbs.
34F395. NET **8.67**



MULTI-PURPOSE ACCESSORIES

34F396. Type 99-82. Reversible Phillips blade for Nos. 1 and 2 screws. ½ lb.
34F397. Type 99-83. Reversible Reed and Prince blade for Nos. 1 and 2 screws. ½ lb.
NET EACH .... **.90**
34F398. 99-1 Hndl. only for 99 PR set..... **69c**

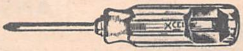
DELUXE SCREWDRIVER SET



Type CK-3. Consists of 3 dual-purpose screwdriver blades in plastic roll. Includes RB-1 shaft with 3/16″ regular and No. 1 Phillips blades, RB-2 shaft with ¼″ regular and No. 2 blades, RB-3 shaft with 5/16″ regular and No. 3 blades, plus combination plastic handle for all shafts. Weight, ½ lb.
34F394. NET **3.48**

SCREWDRIVER KIT

SK-20 SB1, SB2 blades and No. 26 Handle in snap type case. Shpg. wt., ¼ lb.
34F372. NET **2.31**



DUAL PURPOSE SCREWDRIVERS

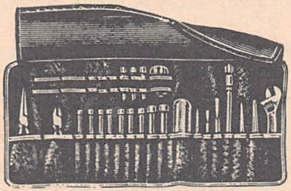
Handy screwdrivers with reversible blades. Will fit both standard and Phillips-Head screws. Type CR1 is for 3/16″ and No. 1 Phillips screws, type CR2, ¼″ and No. 2 Phillips screws. 7″ L. CR3 for 5/16 and No. 3 Phillips screws.
34F298. Type CR1.
34F299. Type CR2. **NET**
34F297. Type CR3. **EACH** **1.38**

BERYLLIUM COPPER NON-SPARKING SCREWDRIVERS

Non-sparking, non-magnetic screwdrivers for TV focalizer adjustments and other applications requiring non-sparking tools.

Stk. No.	Type	Blade	Length	NET
34F379	BR-186	⅛x6″	8⅝″	.75
34F380	BR-1810	⅛x10′	12⅝″	.81
34F381	BR-3168	3/16x8″	11⅝″	1.32
34F384	BR1410	¼x10″	12″	1.95

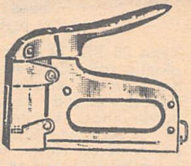
THE SERVICEMAN'S COMPLETE KIT



Type 99-SM. The most complete and versatile set of Quality Tools in a roll kit that won't mark or scratch the surface it's placed on. SET CONTAINS: No. 52CG long nose plier; No. 55CG Diag., plier; No. 46 Adj. wrench; No. 99-6 thru-12, -14. -16 (regular) and No. 99-S8, -S10, 1S12 (stubby) Nutdrivers; No. 99-811, -812 (slotted) and 821 (#1 Phillips) Screwdrivers; No. 99-38, -39 Reamers; No. 99X10 Extension; No. 99-1 (regular) and -3(stubby) Handles.
34F388. NET **22.89**

STAPLERS & TOOLS

NEWARK CARRIES
POPULAR TOOLS



Type T-50. All-purpose heavy duty staple gun which is ideal for do-it-yourselfers. Rugged steel const. permits almost any heavy-duty nailing job. High powered spring action. All chrome finish. Loads 85T-50 staples. Double leverage permits 1" squeeze pressure to penetrate hardwood board. 3 lbs. List Price $12.50.

34F633. NET **10.41**

Staple Clips. Length, 9/16''. Contains 5,000 staples. Shpg. wt., 2¼ lbs.
34F634. List $3.50. **NET** **2.92**

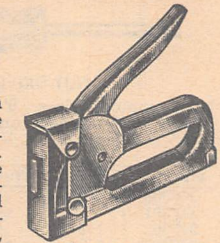
¼'' staples. Box of 5000.
34F627. List $2.50. **NET** 2.08

⅜'' staples. Box of 5000.
34F628. List $2.75. **NET** 2.29

½'' staples. Box of 5000.
34F629. List $3.25. **NET** 2.71

ARROW STAPLE GUNS

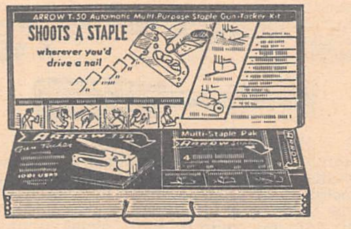
ARROW JUNIOR TACKER



Type JT-21. Ideal gift item for any home owner or apartment dweller. Takes two staple sizes for numerous household uses like screening, upholstery, shelfing, lining, etc. Easy to operate, fits hand comfortably. Tacker locks to fit in pocket, and prevent accidental firing. Built-in staple extractor in rear of base. Attractive colors. Loads 100 JT-¼" or 5/16" staples. Shpg. wt. 1¼ lbs.
34F638. List Price 4.95. **NET** 3.97
34F639. ¼" staples for JT21.
Box of 5000. List $2.95. **NET** 2.25
34F640. 5/16'' staples for JT21.
Box of 5000. List $2.95. **NET** 2.25

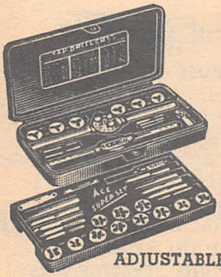
ARROW T-50 MP AUTOMATIC MULTI-PURPOSE STAPLE GUN-TACKER KIT

- **Ideal for Do-It-Yourselfers**
- **Tool-Chest Carry-Pak**

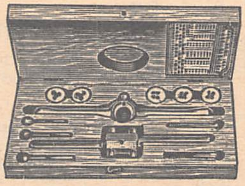


Model T-50MP. Speed up hundreds of operations. Permits up to 5 times faster operation than conventional hammer-and-nail production. Use for carpentry, installing insulation, ceiling repair, wire-fence maintenance or installation, upholstering, woodworking, etc. Kit includes one T-50 Automatic Stapling Gun, 2000 ¼" staples, 1000 ⅜" staples, 1000 ½" staples, 1000 9/16" "Ceiltile" staples, and SL-50 staple lifter. Features new wire, shade and screen attachments. Wt., 5 lbs.
34F626. List 17.50. **NET** **14.57**

HANSON-ACE QUALITY TOOLS



ADJUSTABLE DIES



TAP AND DIE SET

SCREW EXTRACTOR SET

Type 614V Adjustable Dies. 39 tools, each in its own easy-to-reach compartment. Sturdy, unbreakable plastic case. Contains one each of the following: No. 25 die stock, No. 88 tap and reamer wrench, No. 1E T tap wrench, No. 514 screw pitch gauge, screw driver and one each tap and adjustable die in the following sizes: 4x36, 6x32, 8x32, 10x24, 10x32, 12x24 machine screw standard. ¼x20, 5/16x18, ⅜x16, 7/16x14, and ½x13NC (U. S. Standard), ¼x28, 5/16x24, ⅜x24, 7/16x20, and ½x20NF (SAE Standard)‡, plus ⅛" pipe. Type of die, 1'' O.D.
33F351. NET **25.16**

Type S20 Screw Extractor Set. Designed to remove broken screws, bolts, studs and pipes that cannot be taken out any other way. Drill hole in broken piece . . . counterclockwise turning of extractor wedges it in hole. Screw removed on its own threads. No. 2 extractor removes screws 5/32 to 7/32'' dia., No. 3 removes 7/32 to 9/32'' dia., No. 4 removes 9/32 to ⅜'' dia., No. 5 removes ⅜ to ⅝'' dia., ⅛ and ¼'' pipe. Scientific heat treatment makes alloy steel extra tough. Wt., 1 lb.
33F652. NET **1.80**

TAP AND DIE SETS

Highest quality, precision ground steel makes these sets ideal for mechanics, technicians, or homeowners. Set comes furnished with: 1 each plug tap and die, 6x32, 8x32, 10x32, 10x24, ¼x20; type of die, 1'' O.D., solid, all steel tap wrench. These compact sets are packed in a sturdy wooden carrying case. Wt., 3 lbs.
Type S21
33F653. NET **6.84**

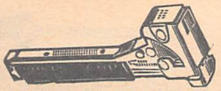
MICROMETER—Type 100RS

Accuracy guaranteed to .0005". Screw type anvil makes zero adjustment easy. Spring Friction Stop; thimble and ratchet assures greater accuracy. Frame, thimble and ratchet are fully chromed. Wt., 6 oz.
33F585. NET **3.38**

TAPERED REAMER—Type R120

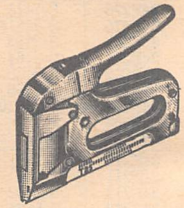
This high quality tapered reamer was primarily designed for enlarging holes in wood, bakelite, or metal up to ½" in diam. Shank has "T" handle. Length, 5¾''. Tapered point has diameter of ⅛''. Shipping weight, 8 oz.
34F550. NET **1.13**

HEAVY DUTY HAMMER TACKER



Model HT-50M. Staple hammer. Used like a hammer, staples when it is struck against surface. Used for applying insulation protective linings, and can apply grill cloths on speakers. Loads 170 T-50 staples. Uses sizes up to ½". Shpg. wt. 1½ lbs.
34F625. Type HT-50M. **NET** **13.74**

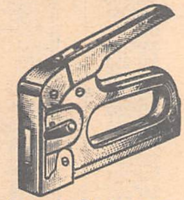
WIRE STAPLE GUN



Type T-25. Fast-action wire staple gun for low-voltage wiring. Shoots round crown staples in 1/1,000 second . . . reaches tight places inaccessible to a hammer. Wt., 3 lbs.

34F635. List Price $15.00. **NET** **12.49**

Staple Clips. Length 7/16''. Box of 5,000 for stapler above. Wt., 2 lbs.
34F636. List $4.00. **NET** **3.33**



Type T-32. Fast, stapling tool for tacking down twin-lead, signs, etc. Hold tacker against surface and squeeze — staple is immediately driven in. Shoots a staple wherever a tack can be driven. Operates at trigger rate speed. Chrome-plated steel. Pocket size. Shpg. wt., 2 lbs.
34F630. NET **8.74**

Staples. For gun tacker described above. Easy to insert. Length, 5/16". Contains 5,000 staples. Wt., 1 lb.
34F631. List $2.50. **NET** **2.08**

BEAVER DRILL BITS

Versatile time saving tool. After cutting the starting hole, the 2" side cutting section can be used to cut, saw, or ream. For use with any ¼" drill. Wt., 10 oz. per doz.

Type #1 All Purpose Bit. For use on: steel, brass, aluminum, copper, lead, zinc, bronze, silver, pipe, sheet metal, wood, plastic, etc.
33F490. NET **1.65**

Type #2 Wood Bit. For use on: plywood, plastic, sheet rock, masonite, mild steel and all types of wood.
33F491. NET **1.65**

Type #3 Heavy Metal Bit. For use on heavy iron, steel, angle iron, bakelite, etc.
33F492. NET **1.65**

MAKE NEWARK
YOUR ONE-POINT-SOURCE
FOR ALL ELECTRONIC
ACCESSORIES
AS WELL AS COMPONENTS.

QUALITY HOBBY TOOLS

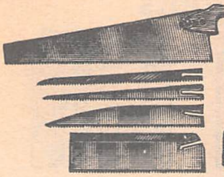


Fig. A

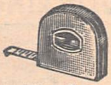


Fig. C

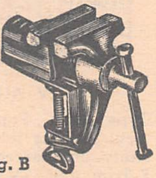


Fig. B

NEST OF 5 SAWS

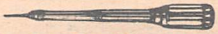
Fig. A. Interchangeable handle with 5 saws. Contains 12" handsaw, 12" pruning saw, 10" compass saw, 9" metal cutting blued compass saw. Wt. 1½ lb.
34F515. NET.. **.83**

BENCH VISE

Fig. B. Bench vise for holding projects steady while sawing, drilling, cutting, etc. Heavy cast-iron body, enameled. 2½"" width of jaws. Clamp screw. 2½ lbs.
34F552. NET.. **1.16**

HUNTER MECHANICS' TAPES

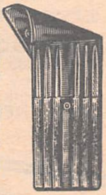
Fig. C. Type 53. Steel measuring tape. 2" inside-outside measure. Chrome plated D shaped case. Size: ½x72". Shpg. wt.: ¼ lbs.
34F483. NET.. **.96**
Type 53C. Economy 36" long tape in round plated case. Snaps back.
34F484. NET.. **.39**



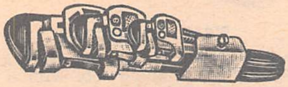
SPIRAL RATCHET SCREWDRIVER

One tool for every screwdriver need. Combination push drill and ratchet screwdriver with six bits. Quick return, three position, nickel plated ratchet. Clear magazine handle, 3 drill points, 1 recessed blade, 2 slotted blades. Overall size: 10½". Weight ½ lb.
34F513. NET.. **2.58**

SWISS-PATTERN NEEDLE FILES

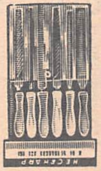


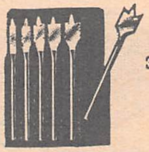
Complete assortment consists of 12 most popular sizes and shapes. Heat treated carbon steel blades. Complete with handsome plastic case for easy selection of files. Overall length of individual files 5½". Plastic case size: 2¾x6¼x1". Shipping Wt., ½ lb.
34F512. NET.. **1.99**



STILLSON-TYPE WRENCH SET

Set of three Stillson Pipe Wrenches. Sizes: 6", 8", 10". All polished with Red Lacquer Handles. Individually boxed. Weight, 2¼ lbs.
34F509. NET.. **2.98**


34F507


34F508

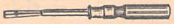
RADIO-TV HOBBYIST FILE SET

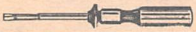
Six piece warding file set. Six assorted shapes. Individual, colorful, plastic handles. Enclosed in clear plastic transparent bag.
34F507. NET.. **1.00**

POWER CENTER BIT SETS

Six piece set in an attractive plastic kit. Bits are made of tool steel and are 5" long overall. For use with electric hand drills with ¼" chuck. Sizes: ⅜", ½", ⅝", ¾", ⅞", 1". Weight 3 lbs.
34F508. NET.. **.77**

KEDMAN TOOLS



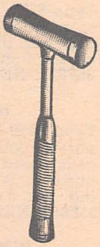


A quick-wedge screw-holding screwdriver designed to drive many sizes of screws. Hollow ground bit fits any slotted screw. Will not mar screw slot. No spring clip to slip off screw or pressure wedge to wear out.

Stk. No.	Type	Bld. Size	Oz.	Net
33F500	1253	⅛x3"	1	1.25
33F501	1734	5⁄32x4"	1½	1.15
33F502	1834	3⁄16x4"	2	1.60
33F503	2354	¼x4"	4	1.70
33F504	2358	¼x8"	5	1.80

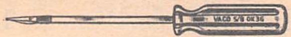
VACO TOOLS

SOFT FACE HAMMER



Model MS-2. A low cost, soft face hammer that is perfect for use on all soft metals, painted, polished, or plated surfaces and for working on motors, boats, furniture, plumbing fixtures, tile, appliances and metal forming. Shot loaded head gives 30% more driving power with no rebound. Indestructible fiberglass shaft with non-slip, cushion grip handle. Supplied with a medium tip and a tough tip. Shpg. wt., 20 oz.
34F414. NET.. **3.40**

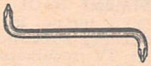
KLIP-ON SCREWDRIVERS

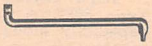


Improved Klipxon screwdriver with screw holding clip. All take Nos. 2 to 8 screws. Have plastic handles. Av. wt., 4 oz.
34F406. 3" blade. **NET**.. **78c**
34F407. 4" blade. **NET**.. **82c**
34F408. 6" blade. **NET**.. **86c**

NEWARK CARRIES THE MOST
COMPLETE LINE OF
SHOP AND LABORATORY TOOLS
AVAILABLE ANYWHERE!
SEE NEWARK AND
SAVE!

OFFSET SCREWDRIVERS



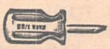


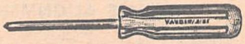
Double-ended—one bit parallel to shank, other at right angles. Made of chrome vanadium steel. Av. shpg. wt., 4 oz.

PHILLIPS OFFSET SCREWDRIVERS

Stk. No.	Type	Screws	Length	EACH
34F400	P-120	1 & 2	4¾''	.54
34F401	P-230	2 & 3	5½''	.90
34F402	P-340	3 & 4	6''	1.04
MILLED BIT OFFSET SCREWDRIVERS				
34F403	VO-1	2 to 6	3''	.38
34F404	VO-2	6 to 10	4''	.62
34F405	VO-3	8 to 12	5''	.70

PHILLIPS SCREW DRIVERS





Phillips cross slot screws are now in such wide use that you need these precision steel screwdrivers for all Phillips screws. Shpg. Wt., 4 oz.

STANDARD TYPES

Stk. No.	Type	Point	Length	Screw	NET
34F355	P01	0	5¼''	0-1	.59
34F356	P1	1	6½''	2-4	.80
34F357	P2	2	7⅝''	5-10	1.01
34F358	P3	3	10''	12-16	1.38
34F359	P4	4	12½''	18 up	1.63

STUBBY TYPE

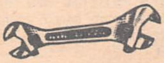
34F361	P6	1	3''	2-4	.80
34F360	P5	2	3⅞''	5-10	.88

POCKET CLIP TYPE

34F362	P12	0	5''	0-1	.61

DIAMALLOY WRENCHES, PLIERS

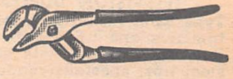
DOUBLE END ADJUSTABLE WRENCHES



Very convenient where light weight and small space are important. Stronger, thinner and lighter than standard pattern. Tested for hardness and treated for strength on a special tensile strength testing machine. Meets all Federal specifications for strength. Nickel chrome plated with sides of head buffed. Packed one to a box.

Stk. No.	Type	Wt.	Capacity Inches	Net
34F500	DB76	4½ Oz.	½-¾	2.80
34F643	DB78	9 Oz.	¾-15⁄16	3.16
34F644	DB710	1 lb.	15⁄16-1⅛	3.85

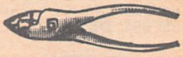
GROOVE-JOINT PLIERS



Teeth designed to give a maximum grip on any object. Jaws are positively locked in position by rib and groove joint design, cannot slip under any pressure. This plier is ideal for automotive work and general utility service. Nickel chromium plated. With plastic handles.

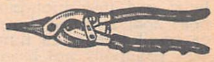
Stk. No.	Type	Size In.	Capacity	Wt.	Net
34F645	HL16P	6	0-1''	5 Oz.	1.73
34F646	HL110P	10	0-1½''	13 Oz.	2.33
34F647	HL112P	12	0-2⅛''	22 Oz.	2.67

SLIP JOINT PLIERS



With wire cutter. Knurled handles. Polished Nickeled Chromium plated. 1 per box. Size: 6". Wt., 8 oz.
34F501. Type K16. NET.. **.87**

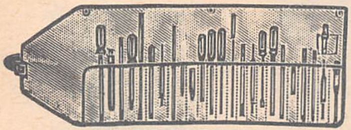
AVIATION SNIPS



Solid drop forged steel handles, plastic covered. Serrated cutting edge for easy cutting. Large hardened pivot bolts give smoother action with less wear. Overall length 10''. Shpg. Wt., 19 oz.

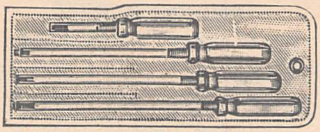
Stk. No.	Type	Cut. Lt.	Cuts	Net
34F649	DAS-10	1¾''	Straight	2.87
34F641	DAR-10	1⅜''	Right	2.87
34F642	DAL-10	1⅜''	Left	2.87

GENERAL CEMENT TUNING, ALIGNING AND SOLDERING TOOLS



DELUXE TOOL KIT

Type 8283. Now you can make TV repairs easily and quickly. Deluxe tool kit contains 25 tools in a superior leatherette roll type case. Includes such necessary tools as alignment screwdriver, TV alignment tool, K-Tran tool, TV channel tuning tool, FM tuning tool, TV core aligner, long reach aligner, TV Duplex aligner, "Shorty" TV alignment screwdriver, and many other needed TV tools. Saves you time and money! 1 lb.
35F650. NET **13.89**

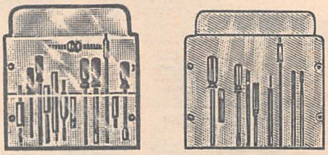


TV ALIGNMENT TOOL KIT

Type 8457. A handy, all-purpose TV kit in a convenient plastic container. Kit contains four basic essential tools that will service majority of TV sets. 10 oz.
35F652. NET **1.91**

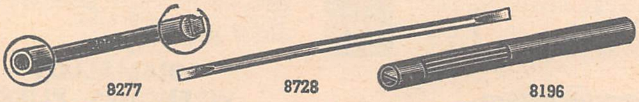
16 TOOLS IN LEATHERETTE CASE

Type 8280. Contains all tools needed to align any TV set. Knurled plastic handles. Leatherette case. Wt., 8 oz.
35F801. NET **8.46**



TV ALIGNMENT KIT

Type 8455. Popular low-priced alignment kit has latest essential tools specially engineered for TV sets. Includes K-Tran tool, TV channel tool, TV Short tool for RF and IF, oscillator tool, long reach aligner, flexible tuning wand, and others. 9 tools in roll-up case. 6 oz.
35F651. NET **4.67**



16" EASY REACH ALIGN. TOOL

Type 9294. Has 1/8" blade for alignment where magnetic fields are important. Offers protection from high voltage in hard-to-reach places. Bone fibre. 3 oz.
35F817. NET **49c**

TV SHORTY ALIGNER

Type 8277. Specially made for trimmer and I.F. transformers where space is limited. Made of Butyrate. Size: 2 1/2" long x 7/32" Shaft Dia. Wt., 3 oz.
35F818. NET **51c**

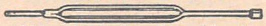
FIBRE TV ALIGNER

Type 8728. Made of durable fibre. A 12" double-bodied aligning tool with a 1/8" narrow shaft. Size: 1/8" dia. x 7" long. Shpg. wt., 3 oz.
35F622. NET **52c**

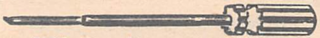
DEEP NIB ALIGNER

Type 8196. For shielded coils and trimmers. Steel nib is insulated. 2 1/2 x 7/32" diam. Wt., 3 oz.
35F605. NET **37c**

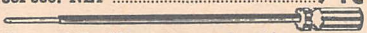
INDIVIDUAL ALIGNMENT TOOLS



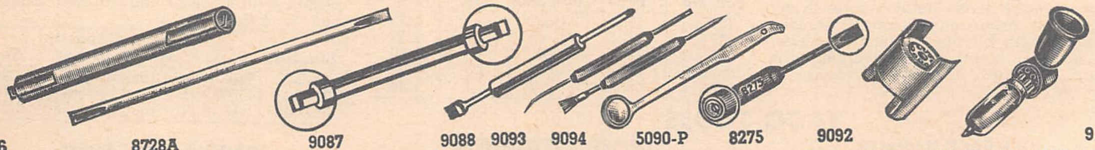
Type 8282. Molded nylon IF alignment tool. 5 7/16" long. Wt., 2 oz.
35F812. NET **36c**



Type 8195. For alignment of TV receivers with "Standard Coil" tuners. Size: 7 1/4" long x 1/8" dia. Wt., 6 oz.
35F808. NET **71c**



Type 8607. Alignment tool with replaceable molded nylon tip. 12 1/4" long. Shpg. wt., 4 oz.
35F810. NET **1.47**



TELEVISION DUPLEX ALIGNER

Type 8276. An all purpose TV aligner for trimmers and I.F. transformers. Made of Butyrate material with extra thin spring steel tips, specially made for Television. One end has a projected tip, the other end has a recessed tip. High quality tool that will last a long time. A necessity in adjusting TV sets. 6x7/32". 3 oz.
35F616. NET **51c**

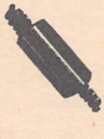
SOLDER AID PROBE

Type 9093. For printed circuits. Handy, fine point probe designed to aid in probing and soldering printed circuits. Size: 8". Wt., 4 oz.
35F653. NET **98c**

BRUSH AND SCRAPER

Type 9094. For printed circuits. Fine stainless steel brush and hardened steel scraper. Size: 8". Shpg. wt., 4 oz.
35F654. NET **96c**

TINNERMAN NUT REMOVER



Type 9355. A device which removes tinnerman nuts easily and quickly. Just a simple twist and this dual purpose tool removes large or small tinnerman nuts. Will positively not break the studs. Small in size, it takes up little room on the workbench, but comes in handy often. Wt. 1 oz.
34F544. NET **91c**

G-C "TUNER KLEEN'R"

Type 9132. Complete set of cleaners for Standard Coil tuner. Remove unused coils and insert strips on detent side of tuner frame with smooth side out. Coil contacts are cleaned as tuner is rotated. 2 oz.
32F280. NET **97c**

SLUG TUNER ADJUSTMENT TOOL

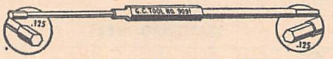
Type 9087. A special slug tuning tool especially made for adjusting standard tuners, etc. as used in TV receivers. Other end has a longer blade for other applications. Completely insulated. 7 1/2" long, 1/4" shaft dia. Shaft ends .170 dia. Wt., 3 oz.
35F813. NET **66c**

SOLDERING AID TOOL

Type 9088. One end has a stiff wire brush for cleaning wire and terminal strip before soldering, and the other end is machined to hold wire while soldering. Solder will not stick to the soldering probe end of the tool. Made of special stainless steel with hardened probe. 8". Wt., 4 oz.
35F814. NET **98c**

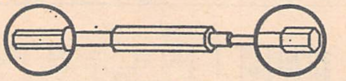
DOUBLE ALIGNMENT TOOL

Type 8728A. Low-cost double-bladed aligning tool for TV. Of low loss fiber. Has narrow shaft, 7" long, 1/8" diameter. Shipping wt., 4 oz.
35F618. NET **42c**



DELRIN HEX WRENCH

Alignment tool for Zenith, Admiral and other sets. One end under cut so it will reach bottom slugs in iron coils.
Type 8606. 5". **NET** ....
Type 8606L. 11". **NET** ....



END IRON CORE TOOL

All Delrin hex tool for cores with .125 hex opening. One end under cut to reach bottom slug in coils w/o turning top slug.
Type 9091. 5" **NET** ....
Type 9091L. 11" **NET** ....

TV ZENITH UNIVERSAL ALIGNER

Type 8275. Designed for Zenith and other sets. Made of bone fibre and plastic handle, has thin fibre screw driver and recessed thin spring steel tip. 3 oz.
35F821. NET **51c**

INSPECTION MIRROR

Type 5090-P. Plastic insulated inspection mirror that you can use to inspect coils, resistors, sockets, etc., while the chassis is hot. No danger of shorting. Wt., 5 oz.
35F655. NET **37c**

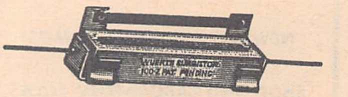
TUBE PIN STRAIGHTENERS

Dual Type 9092. For 7 and 9-pin miniature tubes. Shpg. wt., 6 oz.
35F656. NET **1.24**

4-IN-1 TUBE GADGET

Type 9130. It's a 7-pin tube straightener, a 9-pin tube straightener, a tube puller, and a tube tapper. Four tools in one. Pure rubber, will not break. 3 oz.
35F657. NET **90c**

GS SURGISTOR



Model 25-896. The Surgistor eliminates destructive in-rush currents in Television and Radio sets. Combines the functions of a resistor and a relay. It is connected directly into the power line circuit of any electronic device. Limits the inrush current until the tube heaters are warmed sufficiently to accept the full voltage without damage. For 100-300 w. Shpg. wt., 2 oz.
90F196. NET **1.57**

GREENLEE QUALITY TOOLS

TYPE 735 CONDUIT KNOCKOUT SETS

Permits enlarging of knockouts and cutting of holes for conduit in metal. Consists of four punches for cutting 7/8", 1 3/32", 1 11/32", and 1 11/16" holes for 1/2", 3/4", 1", 1 1/4" conduit. The 7/8" punch will also cut a hole for 1/2" conduit where no knockout is provided when a 13/32" or 7/16" hole is drilled. In leather case. Wt., 2 3/4 lbs.
33F750. NET **10.23**

Type 737 Conduit Knockout Set. Similar to No. 735 set, but consists of only two punches to cut holes for 1 1/2" and 2" conduit. Hole sizes are 1 15/16" and 2 3/8". Weight, 3 1/2 lbs.
33F753. NET **11.02**

TYPE 731 SQUARE CHASSIS PUNCHES

For cutting square and oblong holes in radio chassis. Turns with ordinary wrench. Punch has 4 cutting edges. Drive screw fits into 1/2" pilot hole. Av. wt., 10 oz.

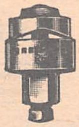
33F779. For 1/2" holes. **NET** 4.27
33F780. For 5/8" holes. **NET** 4.41
33F788. For 7/8" holes. **NET** 5.77
33F781. For 3/4" holes. **NET** 5.03
33F782. For 1" holes. **NET** 6.00

REPLACEMENT SCREWS AND NUTS

1-3038. Drive screw for 5/8" sq. punch.
33F783. NET 1.10
1-3031. Drive screw for 3/4" sq. punch.
33F784. NET 1.23
1-3043. Drive screw for 1" sq. punch.
33F785. NET 1.63
Type AV-2929. Universal drive nut.
33F786. NET .... .26

Newark can supply all replacement parts for Greenlee punches on special order.

KNOCKOUT PUNCHES

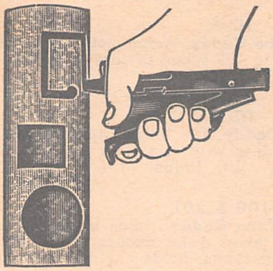


Operate with ordinary wrench for drive power. Just insert in knockout or drilled hole and turn drive nut. Type 738 cuts 2 7/8" dia. holes for 2 1/2" conduit; type 739 cuts 3 1/2" dia. holes for 3" conduit.

Type 738 Punch. Wt., 5 3/4 lbs.
33F751. NET **14.33**
Type 739 Punch. Wt., 7 1/4 lbs.
33F752. NET 19.39

ADEL HAND NIBBLING TOOL

- **Cuts any shape hole in metal.**



Now you can make any size or shape hole over 7/16" dia., in any type of sheet metal! Bites right through 18-guage steel, or 1/16" aluminum, copper or plastic. Takes sharp angles and tight curves with ease. Metal edges stay flat and smooth after cut. Shipping weight, 8 oz.

33F670. Net. 1-11 .... **Each 3.85**
12-71 .... **Each 3.60.** 72 up .... **Each 3.20**

Replacement Punch for above
33F671. NET 1.87

TYPE 730 CHASSIS PUNCHES

GREENLEE
1 1/4"

Makes round, square, key, or "D" openings with maximum ease in minimum time . . . Clean, accurate holes for sockets, meters, etc. Use an ordinary wrench for drive power. Will cut metal, bakelite, or hard rubber. Shipping weight, 3/4 lbs.

No.	Size	NET	No.	Size	NET
33F760	1/2"	2.29	33F755	1 5/16"	3.18
33F754	9/16"	2.29	33F769	1 1/4"	2.65
33F761	5/8"	2.29	33F770	1 3/8"	3.18
33F775	11/16"	2.29	33F771	1 1/2"	3.62
33F762	3/4"	2.29	33F756	1 5/8"	4.27
33F776	13/16"	2.29	33F757	1 3/4"	4.85
33F763	7/8"	2.29	33F758	1 7/8"	6.04
33F764	1"	2.49	33F759	2"	6.53
33F765	1 1/16"	2.65	33F772	2 1/4"	7.01
33F766	1 1/8"	2.65	33F777	2 25/32"	11.02
33F767	1 5/32"	2.65	For radio meters		
33F768	1 3/16"	2.65			

33F778. Type 730-S. 1 7/32" punch for oil tight control units. **NET** 4.85

33F773. Type AV-1675. 1/4" screw for 1/2", 5/8" punches. **NET** 26c

33F787. Type AV-322. 3/8"x1 1/2" screw for 11/16-7/8" punches. **NET** 26c

33F774. Type AV-112. 3/8" screw for 1" to 1 1/2" punches. **NET** 31c

TYPE 732 CHASSIS "KEY" PUNCHES

Keyed round punches for cutting holes for tube sockets and plugs with keys, such as the Amphenol "S", Millen, and other types. Operates by wrench power. Keyed prong prevents rotation after mounting. Eliminates need for mounting plate. Available in five sizes: 15/32", 15/16", 1 11/64", 1 17/64", and 1 21/64". Average shpg. wt., 10 oz.

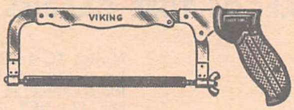
33F789. For 15/32" holes. **NET** 4.41
33F790. For 15/16" holes. **NET** 4.41
33F791. For 1 11/64" holes. **NET** 5.12
33F792. For 1 17/64" holes. **NET** 5.77
33F793. For 1 21/64" holes. **NET** 6.09

TYPE 733 CHASSIS "D" PUNCH

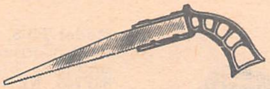
For cutting "D" type holes such as those required for miniature sockets. Easy to operate—driven by wrench action. Cutting edge makes "D" shaped hole easily, accurately. Eliminates need for mounting plate—prevents rotation after mounting. Wt., 6 oz.

33F795. For 1/2" holes.
NET **3.97**
33F796. For 5/8" holes. **NET** 4.18

FORSBERG



V260



V35

QUALITY HACK SAW

Pistol-grip hacksaw with adjustable frame for 8" to 12" blades. Blade may be faced in four directions. Nickel plated frame. With 10" blade. Wt., 1 1/2 lbs.
34F470. Type V260. NET **1.11**

Heat-Treated Blades. Extra blades. 2 oz.

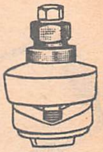
34F471. 10" **EACH** 13c
34F472. 12" **EACH** 16c

KEYHOLE HACK SAW

Cuts all metals, woods, plaster, wallboard, conduit, etc. 7 1/2" blade is interchangeable. With blade. Shipping wt., 6 oz.

34F473. Type V35. NET Each **38c**
34F474. Type V35B. Extra Blade. Ea. ...... .14
Pkg. of 12 Blades 1.51

BALL-BEARING DRIVE SCREWS



Makes knockout enlarging simple as A-B-C . . . far less effort for faster conduit installation. For all sizes of Greenlee Knockout Punches. Use an ordinary wrench . . . ball bearings eliminate need for "muscle power."

KNOCKOUT PUNCH DRIVE SCREW

For Knockout Punches: No. 737 for 1 1/2 and 2-inch conduit, and No. 370 for 1 7/8", 2", 2 1/4" and 2 25/32" openings.

No.	Type	Descrip.	Wt.	NET
33F725	AV304-BB	Complete 3/4"x4" oa.	11 oz.	2.42

PUNCH DRIVE SCREW

For the following Knockout Punches: No. 735 for 3/4", 1" and 1 1/4" conduit, and No. 730 Radio Chassis Punches for 1 5/8" and 1 3/4" openings.

33F728	AV249-BB	Complete 3/4"x3 1/4" oa.	9 oz.	2.29

KNOCKOUT PUNCH DRIVE SCREW

For Knockout Punches: No 735 for 1/2" conduit and No. 730 Radio Chassis Punches for 11/16", 3/4", 13/16", and 7/8" openings.

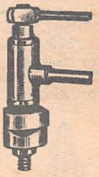
33F731	AV322-BB	Complete 3/8"x2 1/2" oa.	2 oz.	.88

RADIO CHASSIS PUNCH DRIVE SCREW

Same type drive as No. AV322-BB above for 1" to 1 1/2" sizes Greenlee No. 730 Radio Chassis Punch.

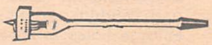
33F734	AV112-BB	Complete 3/8"x2 13/16" oa.	2 1/2 oz.	.97

FAST RADIO CHASSIS PUNCH



Model 1804. Ratchet Knockout Punch Driver. Knockout Driver Assembly, and ratchet and leverage handles., 3 adapter screws for 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3" knockout punches & 1 1/16" to 1 1/2", 1 5/8", 1 3/4", 2", 2 1/4", 2 5/32" round radio chassis punches. Shpg. wt., 13 lb.
33F799. NET **48.51**

EXPANSIVE BITS

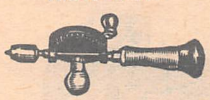


Has quick-adjusting locking feature, cutter cannot creep. Eight-pitch square thread on cutter and adjusting screw permits rapid setting to size. Polished steel. Sq. shank.

33F532. No. 5. 5/8" to 1 3/4". **NET** 2.68
33F533. No. 6. 7/8" to 3". **NET** 3.17

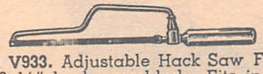
VIKING TOOLS

HAND DRILL



Model V920D. A beautifully designed tool. Solid, gray iron with flanged gear and two steel pinions, all with machine cut teeth. 3 jaw steel chuck with hardened and ground jaws; 1/4" capacity—nickel plated and polished. All steel frame, nickel plated finish. 8 drill points in handle. Detachable side knob. Shpg. wt., 1 1/2 lbs.
33F950. NET **3.38**

HANDY HACK SAW



Model V933. Adjustable Hack Saw Frame. With 6x1/4" hack saw blade. Fits in close places. Handy for Electricians, Plumbers and Mechanics. Indispensable frame for home mechanic.
34F476. NET .... **.45**
Extra blade for V933.
34F477. NET .... .10

MISCELLANEOUS TOOLS & TUBE ACCESSORIES

MILLERS FALLS TOOLS

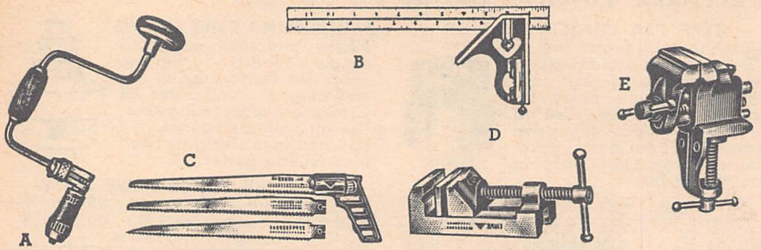


Fig. A. Ratchet Braces. No. 1710. Equipped with Barber chuck with Alligator jaws, semi-boxed steel ratchet. Knurled shifter ring controls the ratchet mechanism. Steel clad ball bearing head. Mahogany lacquered hardwood handles. 10'' sweep. Wt., 2½ lbs.
33F570. NET **4.46**

Fig. B. Carpenter's Combination Squares. Type 1270. Comes complete with level and scriber. Blade has stamped graduations. One side graded in 8ths and 16ths. Other in 16ths and 32nds. Blade: 12'' long, 1'' wide. Shpg. wt., 1 lb.
33F577. NET .... **.98**

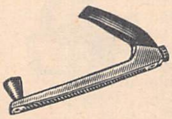
Fig. C. Nest of Saws. No. 725. Rotatable Keyhole type with one each No. 24 and No. 27 interchangeable blades. Pistol grip handle permits locking in any one of 8 positions. Shpg. wt., 1⅝ lbs.
33F572. NET **2.33**

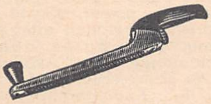
Fig. D. Model 217 Vise. Extremely handy for holding variety of work on each bench drill, drill press bed or work bench. Fixed and movable jaws have parallel faces. A removable swivel jaw also is provided. Base rails have 2 tapped ⅜ inch-20 holes. Jaws, sides, base, bearing surfaces accurately machined. Hand screw for clamping to a bed is provided. Polished clamp screw. Maximum capacity: 3⅛''. Jaw width: 2⅜''. Shipping weight, 4½ lbs.
33F573. NET **7.97**

Fig. E. Model 18 Swivel Vise. Twin guide construction insures smooth action, rigidity of jaws. Swivel permits jaws to be swung in any desired position. Jaws 2½ inches wide are milled after vise is assembled, for close fitting. Clamps to benches up to 2'' thick. Jaws open 2¼''. Shpg. wt., 5⅜ lbs.
33F574. NET **4.33**

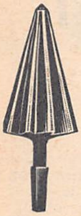
PLANE-'R-FILE

Type 1220. A great new tool for planing, filing, smoothing, and shaping. Has exclusive, 2-way handle. Replaceable blade cuts even tough steel, is double-sided for double life. Blade length: 10¼''. Complete with coarse blade. Shipping weight, 10 oz.
33F567. NET **2.33**
33F568. Type 1226. Medium blade for above .... .65
33F569. Type 1227. Coarse blade for above .... .65


It's a plane!

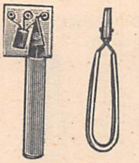

It's a file!

STEEL PIPE REAMER



Model 173. Pipe Reamer. Time saving tool to quickly remove burrs from the ends of pipes and conduits; countersink or enlarge holes in sheet metal. Straight-fluted with bit brace shanks. Fits ¼"-2" pipe. Shpg. wt. 1⅜ lbs.
33F578. NET **3.00**

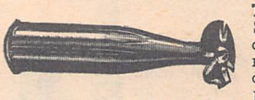
HEAT SINK TOOL



Model 80. Heat Sink Tool. A necessity for Transistor circuitry and other electronic work. Copper jaws for greatest heat absorption. Soft plastic colored handles. Compact, adheres to the work firmly with no damage to fine wiring. Shpg. wt., 2 oz.
34F664. NET .... **.93**
Lots of 12, Each .... .75

JACO

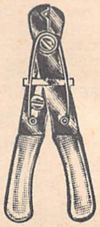
WIRE INSULATION STRIPPER



Type 1S. Specifically designed for rapid and clean stripping of all types of insulation from solid or stranded wire. Three gauged slots are designed to strip insulation from wire sizes 12 to 22. Tempered blade provides keen cutting edges. Shpg. wt., 5 oz.
33F884. NET **59c**
Lots of 12, Each .... .49c

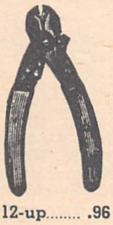
K. MILLER

WIRE STRIPPERS



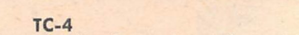
Model 101S-1C. Wire stripper and cutter, deluxe model featuring spring return. Suitable for use on all commonly used stranded wire. 5" long tool has blades hardened and ground to cut with smooth shearing action. Adjusting stop on the gripping handles permits adjustment for size.
34F656. 1-11 .... 1.13 **12-up** .... .96
Model 100-1C. Same as above but without spring return.
34F655. NET .... .87 **12-up** .... .70

HEAVY DUTY MODEL



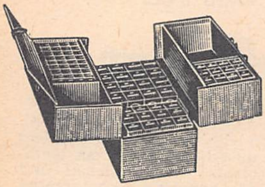
Type 601-S. A wire stripper and cutter suitable for use on all commonly used stranded wires. 6" long. Blades are hardened and ground to cut wire cleanly and neatly. Self opening spring for ease of operation. Shpg. wt., 1 lb.
34F657. NET **1.81**
12-Up .... 1.66 **12-up** .... .96

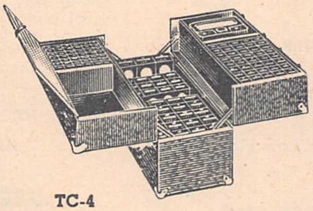
MULTI-TAP-TOOLS

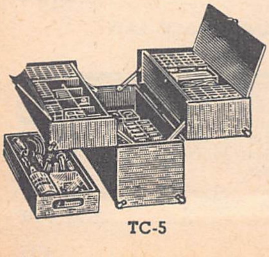


Model HT-24. Does the work of three different size taps. Has a chuck with replaceable tap. Taps for #6-32, #8-32, #10-32. Shpg. wt., 4 oz.
34F659. NET EACH **2.11**
Lots of 6 or more, EACH 1.75
Model HT-25. As above but has taps for #6-32, #8-32, #10-24.
34F660. NET EACH 2.11
Lots of 6 or more, **Each** 1.75

ARGOS TUBE CADDIES


TC-201


TC-4


TC-5

TC-4

Model TC-4 CARRY-ALL Tube Caddy. A complete tube and tool kit. Gray fabric. Holds up to 262 tubes or less with space for tools, meter, etc. Size 21x15x8". 12 lbs.
86F747. NET **15.63**

TC-5

Model TC-5. SUPER Tube Caddy. The largest tube caddy ever built. Carries 340 tubes or less with space for test equipment and tools. Size: 24x16½x8½''. Wt., 19 lbs.
86F746. NET **21.51**

TC-100 & 201

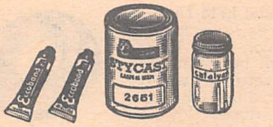
Model TC-100. Pacemaker Tube Caddy. Holds up to 262 tubes. Popular breakaway design gives quick access to all sections. Convenient storage case for tubes, holds enough to complete the job on the spot. Durable gray plaid covering. Size: 21''x 15''x8''D. Wt., 11½ lbs.
86F743. NET **12.49**

Model TC-201. Pacemaker Jr. Tube Caddy. Holds up to 143 tubes with space for tools, meters, etc. Compact folding design. Durable gray plaid covering. Size: 15¾x12½x8". Shipping wt., 9 lbs.
86F774. NET **9.75**

LOOK TO NEWARK
FOR ALL YOUR ELECTRONIC NEEDS

SERVICE TOOLS & EPOXY ADHESIVES

EMERSON & CUMING EPOXY ADHESIVES & EPOXY CASTING RESINS



STYCAST, EPOXY CASTING RESIN

Used to encapsulate electronic cricuits. Seals against moisture, protection from shocks and vibrations. Pourable liquids that cure at room temperature and result in a black opaque plastic, which can be tooled. Excellent diaelectric factor and high heat resistance. Complete with 2 lbs. of resin and catalyst.

Stycast 2651MM. For potting or dipping coils, condensers, resistors, transformers and circuits. Readily pourable. Useful over a temp. range of —100 to 400°F. 2 lbs of resin with catalyst and instruct.
32F373. NET........5.98

Stycast 2651. Similar to 2651MM but with slightly higher viscosity and more rugged.
32F372. NET........5.98

Stycast 2741. By controlling amount of catalyst added to this resin, flexibility and hardnes of cured material will be controlled. Useful for embedding more delicate components as wide temperature changes will not cause cracking. Useful from —94°F to +302°F. Flexibility can be made as low as that of medium-hard rubber.
32F374. NET........5.98

Stycast 2662. 500°F. Use. Unlike 2651 and 2741 Stycast 2662 will not cure at room temperature. Resin must be baked for at least 24 hours at 130°F. or 3 hours at 212°F. If cured for 3 hours at 300°F. material is usable to 600°F. Because of its high viscosity 2662 is hard to mix, but when properly used it becomes the ultimate in a casting resin for high temperature use.
32F384. NET........5.98

Stycast 1264. A clear almost water white casting resin. Slightly flexible when cured. Can be used for display embedments or bonding sheets of glass for good visibility. Will cure in 48 hours at room temperature or 3 hours at 150°F.
32F385. NET........5.98

Ecoogel 1265. An epoxy resin which when cured is a firm water white gel. Used to embed components in circuits where it is desired to see into the completed unit. When cured is extremely tough and flexible. A square rod of it can be tied into a knot. Can be cut with a knife to expose embedded items for removal or repair. Fresh 1265 can then be poured into cavity and cured again.
32F386. NET........5.98

CLEAR EPOXY SURFACE COAT

Eccocoat EP-3. Will provide a flexible clear tough film with excellent electrical characteristics. Usable from —70°F. to +250°F. Transparent, almost water white. Applied by spray, brush or dip.
32F387. NET........5.98

Eccocoat D-30. No catalyst is required for use. Merely dip component in resin, withdraw slowly and cure at 300 to 350°F. Thickness of coating will depend on length of immersion. Resin will gel on surface or part and wil not run or drip during cure cycle. Will provide tough moisture-proof black surface coating of electronic parts.
32F388. NET........5.98

GENERAL PURPOSE EPOXY ADHESIVE

Eccobond 51. A very easy to use epoxy adhesive stable over a temperature range of —100°F. to +300°F. Apply with brush or roller. Can be cured at room temperature in 24 hours or in much shorter time at elevated temperatures.
32F389. NET........5.98

Eccobond Paste E. Has a consistency similar to that of putty at room temperature. Apply with spatula, knife or trowel. Will not flow. Cures to a hard, rigid material, which can be easily machined. Particularly useful where ill-fiting joints are to be bondod or as a patching material.
32F390. NET........5.98

Eccobond 45. Especially useful for bonding materials which have widely different thermo-coefficients of expansion or where bond must be maintained over very wide ranges of temperature.
32F391. NET........5.98

Eccobond 26. Here is an EPOXY resin patch kit ideal for important industrial applications. A handy bonding agent for the laboratory or on the production line. Supplied in two unbreakable tubes. Equal amounts of resin are squeezed out mixed and applied. Cures in four hours at room temperature, in minutes at 150°F. A permanent part of the repaired item.
32F371. NET........**1.98**

Eccosil 4850. A general purpose silicone rubber curable at room temperature, white in color. Excellent for potting and encapsulation and for making flexible molds.
32F392. NET........9.98

Eccosil 4712. Must be cured 2 hours at 250°F. A chemical combination of both epoxy resin and silicone rubber. Useful to 450°F., but will maintain its flexibility for long periods at this temperature. Excellent adhesion without use of primer to wide variety of materials. Recommended for cable connector potting and electrical and electronic applications where a high temperature resilient material is indicated.
32F393. NET........9.98

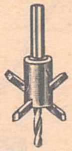
Eccosil 5000. Simply mix together two components, pour and cure at room temperature. The result an extremely unform unicellular sponge of about 30 pounds cubic foot usable continuously at 500°F. or short periods to 650°F. Cured Eccosil 5000 compares to the best quality silicone rubber sponge sheet stock. Extremely low dielectric constant, 1.4. Coat vacuum tubes or sensitive components which are to be subsequently embedded.
32F394. NET........9.98

MOLD RELEASE

122S. A release which when applied to surface will prevent epoxies from adhering to molds. In form of grease which can be applied with rag or brush. Can be thinned for use as spray.
32F395. NET........3.98

ECCOSTRIP 57 EPOXY SOLVENT

One of the few chemicals which will disolve epoxy resins. Items must be submerged in solvent for several hours during which time epoxy will slowly dissolve into solution. Excellent for use in clean-up of uncured epoxy.
32F396. NET........2.98



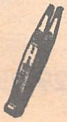
WIRE HOLE CUTTERS

Cut smooth round holes in metal, plastic, etc. Self-tightening. Requires no set screws, clamps or wedges. Fully adjustable. Fit any standard ½" drill chuck. Wt., 8 oz.

Type 2½. Cuts any size holes from ⅞" to 2½" dia.
33F590. NET........**4.45**
Type 4½. Cuts holes from 1¾" to 4½".
33F591. NET........7.15

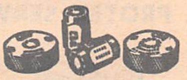
SERVICE TOOLS

PROBING TWEEZERS



Type SH24. Polystyrene construction for non-shock. For those hard-to-get-at jobs.
34F549. NET........**.35**

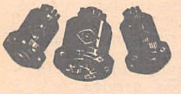
PIN STRAIGHTENERS



Precision lifetime insertion die. Holes drilled individually to close tolerances. No guide posts. Bench or pocket styles.

34F581. Type SH17. 7-pin. **NET**........ .98
34F582. Type SH19. 9-pin. **NET**........ .98
34F583. Type SH79. Twin. **NET**........1.52

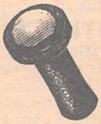
TEST ADAPTERS



Quickly measure voltage, resistance and gain. Silver - plated base pins and test points. Designed for topside testing. Tight grips. No ill effects at a-f frequencies. Easy insertion.

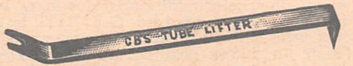
34F567. Type SH27 for 7-pin min. **NET 1.65**
34F568. Type SH28 for 8-pin octals.
NET........1.82
34F569. Type SH29 for 9-pin min. **NET 1.90**

TUBE PULLER



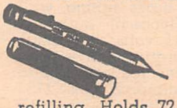
Type SH23B. Positive grip pulls surely. Neoprene rubber resists heat. Will not harm tubes. Works by suction and friction on top of tube. Removes even the smallest tubes.
34F584.
NET........**.76**

TUBE LIFTER



Type SH21. For GT, G, standard, metal, and lock-in tubes. Right and 45° angle ends, for getting at those hard-to-reach tubes. Serves as emergency offset screwdriver.
34F586. NET........**.55**

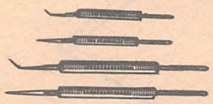
SOLDER DISPENSER AND REFILLS



Ready - to - use with 20 lengths of 0.050", 40/60 activated resin core solder. Knurled cap unscrews for refilling. Holds 72 inches of solder. Eliminates time out to unroll and straighten solder.

34F588. Type SH32. Dispenser.
NET........**1.15**
34F589. Type SH34. Refills. **NET**........ .48

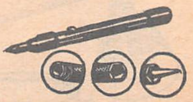
SOLDERING AIDS



Available in two sizes: standard and printed circuit. All have hex handles. Tips are insulated from each other, and are hard chrome plated to shed solder. Can be used for probing, scraping, and cleaning. Handles like a pencil, leaving work visible. Twist-proof tips assure reliability.

34F596. SH20A. Std. st. tip. **NET**........ .75
34F597. SH20B. Std. ang. tip. **NET**........ .75
34F598. SH20C. P-C st. tip. **NET**........ .70
34F599. SH20D. P-C ang. tip. **NET**........ .70

4-WAY TOOL



Type SH33. ¼" hex socket, 5/16" hex socket, Phillips head screwdriver, and standard screwdriver in one. Barrel is knurled at both ends for double grip and powerful torque. Tough tempered steel tool is chrome-plated for extra ruggedness. Consists of three pieces: barrel with hex sockets, screwdriver blade, and setscrew for locking.
34F587. NET........**1.30**

LUXO LAMPS

LUXO LS-1A FLAIR STYLED LAMP

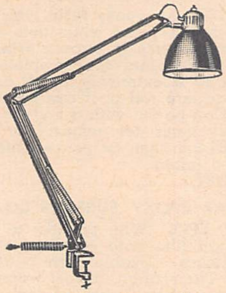
Uses 60-watt incandescent bulb to provide up to 200 foot candles of light 18" above work area. Has exclusive "feather touch" features. For homes, desks, hospitals, and other locations where styling is important. 360° free movement fixture, same as L-1A with bulb. Wt., 10 lbs.

65F009. NET. EACH 18.37
Lots of 3, Each 16.17

LUXO L-9A. Same as above lamp but with only one 25" extension arm and is Utility styled.
65F008. NET. EACH 11.62
Lots of 3, **EACH** 10.23

LUXO "COMBO" LAMP

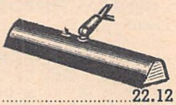
Model LC-1A. Combines incandescent and fluorescent light in one advanced design head. Either lamp can be used individually or in combination for comfortable, easy-on-the-eyes illumination. Can be raised, lowered, tilted or turned to any angle. Two extension arms with 45" reach, 360° sweep, same as L-1A. With "C" clamp for easy mounting with lamps. Wt., 12 lbs.
65F013. NET 25.62
Lots of 3, EA 21.98



LUXO L-1A LAMP

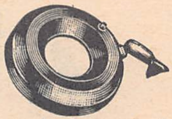
Tubular steel fixture raises, lowers, tilts, traverses and turns in 45" radius, 360° sweep. Properly focuses light at any desired intensity. Stays secure with finger-tip "stay-put" control. Uses 40 or 60 watt bulb. With bracket clamps. Less bulb. 5 lbs.
65F010. NET. EACH 17.62
Lots of 3, EACH 15.51

LUXO FL-1A FLUORESCENT LAMP



Same as L-1A 360° sweep. Uses two fluorescent tubes. Baked enamel finish. Less bulbs. 8½ lbs.
65F011. NET 22.12
Lots of 3, **EACH** 19.47
25F168.F15T8/w Fluorescent bulbs for above.
Carton of 24 22.08
Each, NET 1.15

LUXO ILLUMINATED MAGNIFIER



Model LFM-1A. Combines large magnification, cool fluorescent light and maneuverability into one versatile unit. Can be raised, lowered, tilted or turned to any angle. Leaves both hands free for the job. Two 45" extension arms with 365° sweep, same as L-1A. 3 diopter, 5" ground glass lens. Complete with "C" clamp with bulbs. Shpg. wt. 12 lbs.
65F012. NET 36.38

Lots of 3, **EACH** 30.88

Model LFM-9A. Same as above but has only one 25" extension arm.
65F005. NET 30.69

Lots of 3, **EACH** 27.59

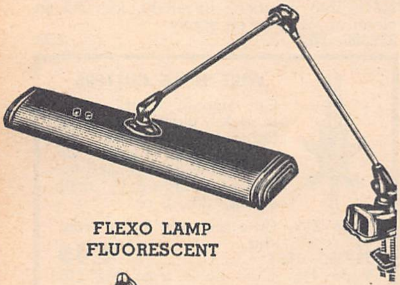
Auxiliary Lenses for Above.
Lens attachment #1 (increase to 7 diopters).
65F006. NET 7.12

Lots of 3, **EACH** 6.27

Lens attachment #2 (increase to 11 diopters)
65F007. NET 8.25

Lots of 3, **EACH** 7.26

FLEXO LAMPS



FLEXO LAMP FLUORESCENT

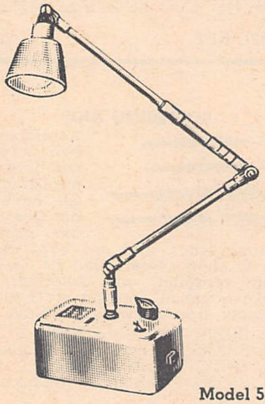
FLEXO FLUORESCENT LAMP

Ideal for factory benches, laboratories, offices and home workshops. A well-designed all-purpose lamp. Furnishes adequate working light to aid in reducing eye-fatigue. Turns 300° on its axis and its head tilts 180°. Requires no adjustment when table angle is changed. 2 bolts clamp base firmly to any surface up to 3" thick. Bolts removable for surface screw mounting. Supplied less lamps. Handsomely finished in long lasting, baked-on gray enamel. Wt., 9 lbs.

No.	Type	15-Watt	1 or 2	3 or more
65F025	4300	1-Lite AC Low Power Fac.	13.12	12.25
65F026	4303	2-Lite AC Low Power Fac.	15.75	14.67

25F168. F15T8/W. — Lamp for above.
Carton of 24 22.08
EACH 1.15

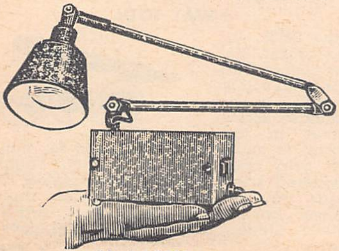
UTILITY LAMPS BY TENSOR



Model 5975

Model 5975. Fold-A-Way Utility Lamp. Reflector swivels 160°. Outside diameter: 2½". Cork insulated. Arms: double ¼" steel tubing with 3 friction joints; in extreme position the arm has an overall dimension of 15". Base contains an electrical outlet (115 volts at 1 amp) from which other electrical apparatus may be operated. Uses standard G.E. 1133 bayonet type bulb. With bulbs. Beige wrinkle finish. In folded position: 10" long, 2½" wide; 4" high.

Stock No.	Description	1-11	12-23	24-up
65F036	Fold-A-Way Lamp	17.50	15.75	14.88

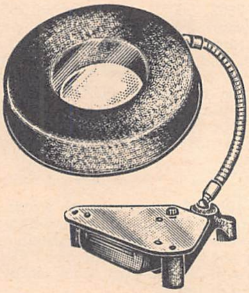


Model 5900

Model 5900. Precision Work Lamp. Reflector swivels 360° and outside diameter of 2½". Cork insulated for maximum heat control. Arms are 5/16" brass tubing with three friction joints. Electrical outlet is located on the base (115 volts at 1 amp) for other electrical apparatus. A five position switch provides intensities from 12.2 to 202 foot candles. Uses standard G.E. 1133 bayonet bulbs. With three bulbs and 7½' extension cord. Available in Medium Beige. Shpg. Wt., 5 lbs.

Stock No.	Description	1-11	12-23	24-up
65F035	Work Lamp	46.50	41.85	39.53

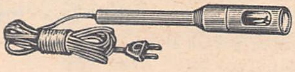
STRAT-O-LITE



INSPECTION MAGNIFIER

Industrial-type magnifier. Built-in fluorescent lamp. Instant start 360° fluorescent circline lamp. 4½" dia. x 9" focal length. Completely flexible adjustable arm and swivel joints. With bulb. 105-125 volts, 60 cps. 11 lbs.
65F000. Standard Model. **NET** 29.95

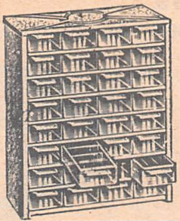
WOODHEAD PROTEX SERVICE LIGHTS



Type 611. The perfect light for servicing hard to get at areas. Servicemen find this light excellent when operating around business machines, television equipment, and other places where lighting aid becomes necessary. Made with an oil proof "Safety Yellow" Neotex handle. Comes equipped with a 6 foot oil proof cord, molded 2 prong AC plug, and an insulated tubular guard. The service light is available with 10 Watt shock resistant lamps. Overall length 8". Max. O.D. 1". Handle molded from high-impact, high-visibility yellow plastic. Shipping weight: 13 pounds.
58F825. NET 2.89

QUALITY CABINET AND STORAGE UNITS

J SERIES CABINETS WITH JD-1 DRAWERS

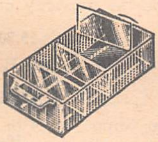


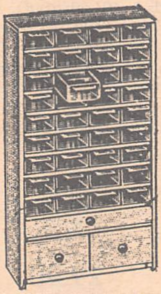
Welded steel cabinets stands, stacks or hangs on wall. Can be integrated into standard shelving set-ups. JD-1 crystal-clear, spill-proof drawers. All cabinets 6" deep. Model J-32 and J-48, 12½" W. J-128, 25⅛" W.

Stk. No.	Model	Drawers*	Size H."	Wt. lb.	Net each
82F100	J-128	128	30½	50	**52.98**
82F101	J- 48	48	22½	18	**18.98**
82F102	J- 32	32	15¼	12½	**11.98**

*Includes 1 long and 3 short dividers with every 4 drawers and index labels.

J SERIES COMBINATIONS





Combination tool chest and parts cabinet with plastic drawers for storing small parts. Sturdy seamless steel drawers for tools. Labels on front for indexing. Stock or use individually. All cabinets 6"D. Size: J128-12, 30½"Hx25⅛"W; J48-6, 22½"Hx12½"W. Wt. lbs: 52*, 18½†.

Stk. No.	Model	Drawers JD-1	Drawers JB	Drawers JC	Drawers JD	Drawers JE	Net Each
82F103	J128-12	80	4	2	4	2	**54.98**
82F104	J 48- 6	24	2	1	2	1	**19.98**

DRAWERS

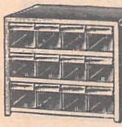
All are 5⅞"D.

Model	Size " W.	Size " H.	Material
JB	5¾	1 7/16	steel
JC	11½	1 7/16	steel
JD	5¾	3⅛	steel
JE	11½	3⅛	steel
JD-1	2¾	1 7/16	plastic

AKRO-MILLS

RS SERIES CABINETS

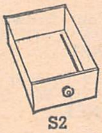
Drawers 2⅞"W, 2¾"D, 11"L.



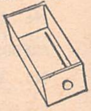
All steel frame baked on hammertone steel gray. Plastic lifetime drawers. Molded in full length. Removable dividers allows four different sizes. Stacked or hung on wall. Labels supplied for quick and easy indexing. Ideal for electronic parts.

Stk. No.	Model	Drawers	Size H"*	Wt. Lb.	Net
82F105	RS-32	32	28½	28½	**42.55**
82F106	RS-12	12	12½	12½	**15.53**

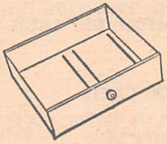
*Cabinets 13 5/16x11⅛"



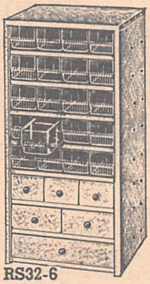
S2



S3



S1



RS32-6

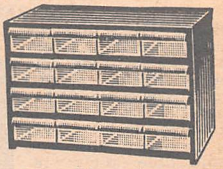
RS SERIES COMBINATION

Store tools and small parts in one convenient place. Welded steel cabinet can be used singly, stacked, or hung on the wall or integrated into standard shelving. 13 15/16"Wx11⅛"D. Seamless steel drawers of the bottom section, size of drawers: S1-2¾x12x11"; S2-2¾x6x11"; S3-2¾x4x11". Plastic drawers for upper section of RS-32-6 for the storage of small parts contain 3 plastic dividers. With full set of labels for indexing the front of each drawer. 2⅞"W, 10¾"D, 2¾"H. Cab. H.: 28½".

Stk. No.	Model	Drawers RP-1	Drawers S-1	Drawers S-2	Drawers S-3	Wt. lbs.	Net Each
82F107	RS32-6	20	1	2	3	31	**37.00**

M3 AND M4 SERIES CABINETS

Drawers: 4"Wx2"Dx11"L.



Perfect to store resistors. Clear plastic drawers with adjustable dividers for lengthwise or crosswise compartmentalization. Divide equal or odd sized sections. Dividers and labels for front of drawers provided. M4B: 17⅞"W. x 11 1/16"D. M3C: 17¼"W. x 11 1/16"D.

M4B Series Cabinets

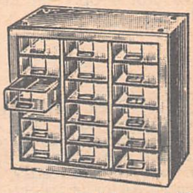
Stk. No.	Model	No. of dr.	H"	Wt.	Net
82F108	M4B-16	16	11¾	24½	**24.13**
82F109	M4B-24	24	17 3/16	17½	**36.78**
82F110	M4B-40	40	28	47	**60.93**

M3C Series Cabinets

Stk. No.	Model	No. of dr.	H"	Wt.	Net
82F111	M3C-20	20	11¾	18	**25.88**
82F112	M3C-30	30	17 3/16	26	**38.53**
82F113	M3C-50	50	28	38½	**64.98**

ECONOMY MODELS

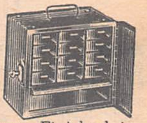
Drawers: 2¾x1¼x5¾".



For storing small parts, quickly accessible. Strong welded steel, plastic front and dividers. Can be divided into 2 or 3 compartments. Complete with index labels and one divider per drawer. 6" deep.

82F114 18HBA—18 drawers model.........**3.99**
82F115 24HBA—24 drawers model.........**5.33**

PORTABLE MODEL

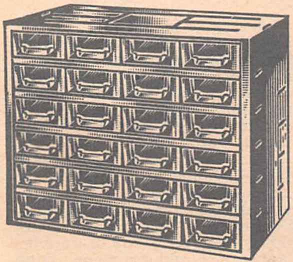


18PA. The safe way to store, protect and transport small items. 9x10x6", welded steel frame houses 12 1¼x2¾x5¾" drawers. Transparent styrene movable dividers. Steel door and lock keeps contents free from dust and pilferage. Finished in silver-gray chip-proof enamel. Wt. 6½ lbs. 12 small drawers, 1 large drawer.

82F116. 18PA...**4.99**

UNION STEEL PRODUCTS

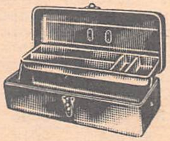
UNION STEEL "STACKMASTERS"



Strong, heavy gauge welded steel frame, in silver Dentone baked-on enamel finish encloses Clear-Vu transparent plastic drawers with built-in index card holder and removable partitions. Features exclusive Lok-Tabs for permanently stacking and locking drawer units in any combination. Safety stop on all drawers prevents spilling. Ideal for service shop, home workshop, or anywhere storage of small articles is needed. Also, user can expand his "storage center" with additional 12 or 24 drawer compartments as his need grows. Drawer size: 5½x2¾x1¼". Cabinet sizes: 12-drawer, 12½x6x5¾"; 18-drawer, 12½x6x11"; 24-drawer, 12½x6x11".

82F021. Model U-12. 12-drawer. Wt., 5 lbs. **NET**.........................**3.59**
82F022. Model U-24. 24-drawer. Wt., 9 lbs. **NET**.........................**6.20**

MODEL 5319 COMPACT TOOL AND UTILITY CHEST



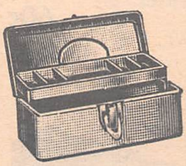
Single cantilever-tray chest. Completely full-drawn seamless construction with embossed reinforcement for strength. Rolled edges insure safety and rigidity; embossed strips reinforcement in cover; new exclusive Union spill proof key lock; and sturdy matched bolt catches. Formed steel full grip carrying handle. Size 19x7¼x6". Shpg. wt., 8 lbs.

82F010. NET......................................**3.09**

Model 5419 Same as above except, double cantilever trays with 9 additional compartments. In spruce green enamel finish.

82F026. NET......................................**3.07**

MODEL 2313 LIGHTWEIGHT UTILITY CHEST



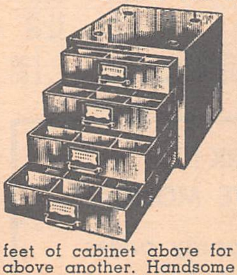
Improved, low priced, all purpose, single cantilever tray chest. Compact in size, but extremely versatile, ideal as tool box, general utility chest, or fishing tackle box. Features include: quality drawn seamless construction; fully returned edges on case, cover and tray; machine riveted snap catch with built-in hasp for padlock. Chest is durably finished in smooth infra-red baked on Gulf Green enamel with brightly plated hardware. Size: 13½x6½x4½". Shpg. wt., 2½ lbs.

82F011. NET......................................**1.47**

Model 5413 Same as above but, with an additional full-length cantilever tray.

82F027. NET......................................**2.08**

MODEL 410 UNION UTILITY CABINET



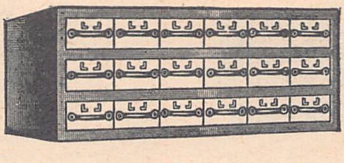
Heavy gauge steel chest for storing resistors, condensers, nuts and bolts, screws, and other small parts. Consists of a cabinet with four sliding drawers all 2x9x11½". Each drawer has removable dividers which make from 2 to 12 compartments. Drawers have label holders for identifying contents. Safety drawer stop feature prevents contents of drawers from being accidentally spilled. Flush joints are electrically welded. All edges are hemmed or returned. Indentations in top of cabinet hold feet of cabinet above for convenience in stacking units one above another. Handsome durable steel gray Dentone finish. Over all size, 10x10x11½". Shpg. wt., 10 lbs.

82F020. NET......................................**4.97**

TOOL BOXES, PARTS CABINETS AND CARTS

EQUIPTO CABINETS—STOCK CARTS

PARTS CABINETS



Model 11. Unit for storing resistors, condensers, nuts and bolts, screws, electrical supplies and other small parts. With 18 drawers. Each drawer is equipped with two adjustable and removable cross dividers making three compartments per box. This makes a total of 54 adjustable compartments. Drawer size, 11x5⅝x3⅛''. Dividers are spaced in adjustable one-inch units which permit varying compartment sizes to hold items in any amount. New type instant-visibility label holders on each drawer and cross divider. Heavy-duty all-steel frame. Units may be placed on 12'' shelf or may be stacked. Olive-green finish. Size, 34x13¾x12''. Shipped completely set up. Shpg. wt., 80 lbs.

82F000. NET.. **27.90**

82F002. Type 8720. Extra dividers for model 11. **EACH**...............**10c**

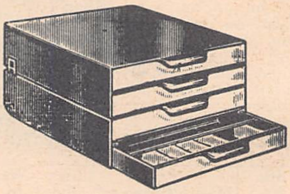
Model 22. Similar to above, but 18'' deep. Drawer sizes are 17x5⅝x3". Olive-green baked enamel finish overall. Complete with 18 metal drawers. Overall size, 34x13¾x18''. Shpg. wt., 110 lbs.

82F001. NET.. **37.90**

82F003. Type 8720. Extra dividers for Model 22. **EACH**.............**10c**

We can supply all Equipto cabinets and shelving. Write for details.

"LITTLE GEM" TINY PARTS CABINET



No. 1. Consists of two 1½'' deep drawers in a one-piece frame. Each drawer furnished with 8 dividers, providing for 24 adjustable compartments. Extra dividers listed below may be used to increase total to 28 compartments per drawer. Cabinets can be used individually, stacked or as shelving inserts. Drawer stops prevent spilling. Units lock together when stacked. Compartments have sloping fronts for easy picking of small parts. 1⅜'' label holder on front of drawer; ⅝'' label on top of each compartment within the drawer. Smooth slides on bottom for easy pull. Size: 3¼x11x11". Finished in olive-green baked enamel. Shpg. wt., 10 lbs.

82F004. NET.. **6.95**

No. 2. Four Drawer Unit (Illustrated). Twice the capacity of No. 1. 6½''H, 11''W, 11''D. Wt., 20 lbs.

82F005. NET..**13.90**

No. 3. Six Drawer Unit: triple the capacity of No. 1. 9¾''H, 11''W, 11''D. Wt., 30 lbs.

82F006. NET **20.85**

No. 8730. Extra Dividers for any model above. Shpg. wt., 4 oz.

82F007. NET EACH..**10c**

TWO TRAY STOCK CARTS

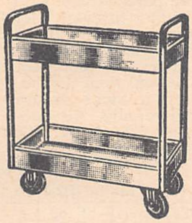
Quality stock carts of extra sturdy steel construction. Trays are strong and rigid, with round beaded edges. Carts are equipped with 2 trays, each 4" deep. Top tray may be inverted for flat surface use. Large 5" rubber tired wheels in front, swivel wheel in rear, provide easy portability. Handle up to 600 lbs., with ample factor of safety. Green baked enamel finish.

Model 145. 30" long, 16" wide, 30" high. Especially made for use in narrow aisles, between rows of shelving, etc. Wt., 69 lbs.

82F017. NET.. **29.90**

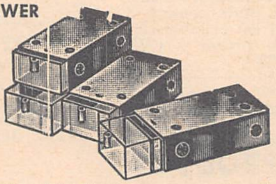
Model 150. 36" long, 24" wide, 36" high. Wt., 80 lbs.

82F018. NET..**39.90**



HAKE PRODUCTS, INC.

MODEL 1 PLASTIC PARTS DRAWER



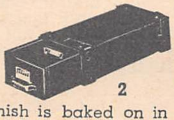
Consists of clear plastic drawers and sturdy steel shells that snap together on sides, top and bottom, with duplicate shells, to form strong metal cabinets. Add on as many drawers as your needs may require. Units snap together easily—no special tools are required. Plastic dividers are supplied to sub-divide the drawers into two or more compartments to satisfy your requirements. Size, 6¹⁄₁₆x3⅛x1⅞''. Supplied with one divider. Shpg. wt., each, 12 oz; 6 lbs./doz.

82F036. 12 for 6.35. NET EACH **60c**

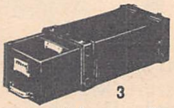
No. ID Plastic Dividers. Fit drawers above. Wt., 1 oz.

82F037...**10 for 35c**

ALL STEEL PARTS DRAWERS



2



3

Steel drawers with sturdy steel shells which snap together on sides, top and bottom. One steel divider is supplied to subdivide each drawer. Finish is baked on in gun-metal gray. Six shells of Model 2 or Model 3 can be snapped together to fit std. steel shelving. Can be used together in the same cabinet.

Stk. No.	Model	Size	Lbs.	Each	Doz.
82F045	2	11¾x5⅛x2½"	3	3.00	31.75
82F047	3	11¾x5⅛x3½"	4	3.30	34.93

82F046. Type 2D. All steel divider for #2 drawer. 10 for............**1.35**

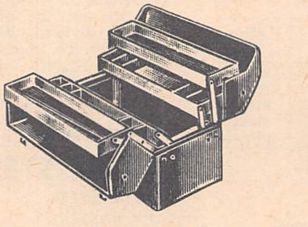
82F048. Type 3D. All steel divider for #3 drawer. 10 for............**1.50**

SAVE WORK !

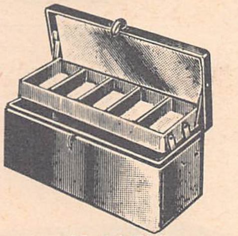
SAVE TIME ! SAVE MONEY !

At NEWARK — Quantity prices competitive with manufacturer !

SIMONSEN TOOL BOXES



Model 184D



Model 151T

Model 184D. Deep drawn tool box with four cantilever-mounted trays. All heavy gauge steel. Ideal for storing large and small tools, screws, condensers, resistors, and other small parts. Chemically treated against rust, corrosion. Contour Neoprene dipped handle. Features steel hip roof and continuous piano hinge which permits all trays to be used simultaneously. Baked-on Kortex enamel finish. Size: 18x10½x13". Shpg. wt., 18 lbs.

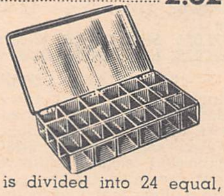
82F040. NET.. **10.35**

Model 151T. For every mechanic, machinist and serviceman. Handy units for storing tools, nuts and bolts, resistors and other small parts. One cantilever tray with five compartments. Features continuous piano hinge. Center draw bolt can be easily padlocked. Precision made of quality steel for years of trouble-free use. Chemically treated against rust and corrosion. Form fitting contour handle. High quality and durable construction throughout—all edges rolled. Double baked enamel finish. Size, 15x6½x6½". Shipping weight, 4 lbs.

82F041. NET.. **2.62**

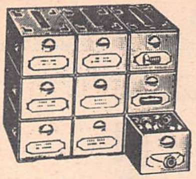
VLCHEK

PLASTIC BOXES



Molded of clear polystyrene, these sturdy boxes are handsome as well as functional. Model P618 has 18 equal, square compartments. Model P612 has 6 square and 6 rectangular compartments. Models P203 and P215 are divided into 6 and five compartments respectively. P824 is divided into 24 equal, square compartments.

Stock No.	Type	L x W x H (in.)	Lbs.	NET
82F066	P618	11x6¾x1³⁄₁₁	1½	1.23
82F067	P612	11x6¾x1³⁄₁₁	1½	1.17
82F068	P203	8¼x4½x1⅜	1	.49
82F069	P215	7x3¾x1¼	1	.35
82F070	P824	13⅛x9x2⁵⁄₁₆	2	2.14



CINCINNATI VENTILATING

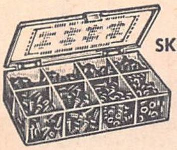
MODEL 1010 MULTI-DRAWER STORAGE UNITS

Handy drawers that fit together to form strong aluminum cabinets. Each unit is constructed with prongs and slots to interlock securely with other units on top, bottom or side. Drawers may be sub-divided into compartments with dividers. Each drawer is furnished with holder for contents card, less dividers. Aluminum finish. Size, 5x2⅞x2¼". Wt., 4¼ oz., per 12, 3 lbs. 3 oz.

82F032. NET EACH **42c**
12 for **4.50**

M-1011. Aluminum dividers for above, 2 oz., per 12, ¾ lb.

82F033. 12 for 30c. NET EACH **3c**



SKRU BOX ASSORTMENT

Complete selection of popular hardware in one always-handy kit! Popular Skru Box is a must for every professional and home technician. Each sturdy clear plastic box has a positive clasp and 8 compartments filled with the types of plated screws and nuts most widely used on electronic equipment. All lugs and screws are cadmium plated. **Hardware selections available below.**

BOX OF WASHER HEAD SHEET METAL SCREWS

Model HD-4011. Steel, slotted hex head Type A sheet metal screws with washer attached.

Quant.	Description	Quant.	Description
15	#6x¼"	15	#8x¼"
15	#6x⅜"	15	#8x⅜"
15	#6x½"	15	#8x½"
15	#6x¾"	15	#8x⅝"

32F050. NET **1.59**

WALDOM HARDWARE

BOX OF ROUND HEAD SCREWS & NUTS

Model HD-4013. Contains steel machine screws, *hex nuts, and sheet metal screws. Black label for clear identification. Shpg. wt., 9 oz.

Quant.	Description	Quant.	Description
40	4-40x½"	25	#6x½"
40	6-32x¼"	40*	4-40x¼"
20	6-32x¾"	40*	6-32x¼"
20	8-32x½"	40*	8-32x¼"

32F051. NET **1.59**

BOX OF BINDER HEAD SCREWS & NUTS

Model HD-4018. Contains steel machine screws, *hex nuts, and †sheet metal screws. Orange label. Shpg. wt., 9 oz.

Quant.	Description	Quant.	Description
40	4-40x½"	25†	#6x½"
40	6-32x¼"	40*	4-40x¼"
20	6-32x¾"	40*	6-32x¼"
20	8-32x½"	40*	8-32x¼"

32F052. NET **1.59**

BOX OF ASSORTED SHEET METAL SCREWS

Model HD-4014. Steel, slotted hex head sheet metal screws, Type A. Maroon label. Shpg. wt., 7 oz. *Item std. for auto radio.

Quant.	Description	Quant.	Description
25	#4x⅜"	35*	#8x¼"
25	#6x¼"	25	#8x⅜"
25	#6x½"	10	#8x½"
10	#6x¾"	10	#8x⅝"

32F053. NET **1.59**

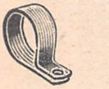
BOX OF WOOD SCREWS

Model HD-4019. Contains both round head and *flat head steel wood screws. Turquoise label. Shpg. wt., 10 oz.

Quant.	Description	Quant.	Description
40	#4x½"	12	#8x1"
25	#6x1"	10	#8x1¼"
15	#6x1"	10*	#8x1½"
15	#8x¾"	12*	#8x1"

32F054. NET **1.59**

NYLON CABLE AND ETHYL CELLULOSE PLASTIC CLAMPS



Combine lightweight and chemical resistance with excellent shock resisting properties in a temperature range of from 185°F. to -40°F. in the Ethyl Cellulose and 300°F. to -60°F. in the Nylon. Approved 7-21-44 Army-Navy Aeronautical AN742.

NYLON CABLE CLAMPS

Stock No.	Type	Cable Diameter	Length Inches	100-999/C	1000-4999/M	5000-up per M
31F979	CCN-31	.125"	0.328	2.85	24.30	19.24
31F980	CCN-32	.188"	0.390	3.00	25.72	20.36
31F981	CCN-33	.250"	0.421	3.30	28.12	22.26
31F982	CCN-34	.313"	0.453	3.66	31.06	24.59
31F983	CCN-35	.375"	0.483	3.89	32.65	25.85
31F984	CCN-36	.438"	0.531	4.05	34.53	27.34
31F985	CCN-37	.500"	0.562	4.30	36.75	29.09
31F986	CCN-38*	.563"	0.625	5.32	45.37	35.93
31F987	CCN-39*	.625"	0.610	6.24	53.16	42.08

All are ⅜" wide x .050" thick except * ½" wide x .060" thick.

ETHYL CELLULOSE PLASTIC CLAMPS

Stock No.	Type	Cable Diameter	Length	100-999/C	1000-4999/M	5000-up per M
31F951	CCE-1	.125"	0.328	1.87	16.03	12.69
31F952	CCE-2	.188"	0.390	1.89	16.14	12.78
31F953	CCE-3	.250"	0.421	2.08	17.79	14.09
31F954	CCE-4	.313"	0.453	2.30	19.63	15.55
31F955	CCE-5	.375"	0.483	2.41	21.69	16.35
31F956	CCE-6	.438"	0.531	2.64	22.54	17.85
31F957	CCE-7	.500"	0.562	2.81	24.00	19.00
31F958	CCE-8	.563"	0.625	3.30	28.09	22.24
31F959	CCE-9	.625"	0.610	3.73	31.81	25.54
31F960	CCE-10	.688"	0.666	4.06	34.59	27.38
31F961	CCE-11	.750"	0.765	4.25	36.25	28.70
31F962	CCE-12	.875"	0.812	4.60	39.36	31.15
31F963	CCE-13	1.000"	0.906	4.90	41.79	33.08
31F964	CCE-14	1.125"	0.968	4.91	41.91	35.31
31F965	CCE-15	1.250"	1.156	5.52	47.14	37.31

*Material thickness .063"

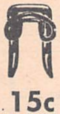
ELECTRONIC HARDWARE

METAL SPACERS

For screws up to number 8. Average weight, per 10, 4 oz.; per 100, 2 pounds. Steel nickel plated.

Stock No.	Ht.	10 for	100 for
31F930	¼"	.32	2.24
31F931	½"	.40	2.80
31F932	¾"	.50	3.50
31F933	1"	.60	4.20

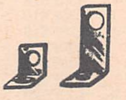
INSULATED STAPLES



Insulated saddle type staples. For use in securing wire and cable. Slip-proof fiber insulation. In pkgs. of 100. Wt., 5 oz.

31F950. NET PER PKG. **15c**
10 Pkgs. for **1.35**

ANGLE BRACKETS

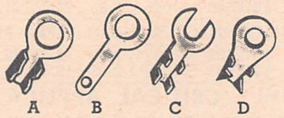


Angle brackets made of heavy steel Cad. Plated. Sizes indicate length of each side. All ⅜" wide. Wt. per 12, 3 oz.; per 100, 9 lbs.

Stock No.	Size	Per 12	Per 100
31F940	½x ½"	26c	1.84
31F941	⅝x ⅝"	34c	2.38

Stock No.	Type	Size	Size	100-999 Per 100	1000-4999 Per 1000	5000-9999 Per 1000
31F2152	6261-C	¼"	3⁄16"	1.10	8.79	7.91
31F2153	6262-C	⅜"	¼"	1.36	10.89	9.81
31F2154	6263-C	½"	7⁄16"	1.55	12.43	11.19

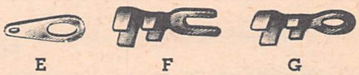
ASSORTED HARDWARE



Hot-tin dipped steel, non-locking type lugs. Shpg. wt., 4 oz. 1 gross, 1 lb./1000.

No.	Fig.	Hole	Gross	Per 1000
31F900	A	No. 6	.88	5.17
31F902	B	No. 8	.65	3.88
31F903	C	No. 10	.73	4.35
31F904	D	No. 8	1.03	6.14

TINNED SOLDER LUGS



No.	Fig.	Hole size	100 for	1000 for
31F910	E	7⁄64"	.28	2.50
31F911	E	¼"	.50	4.50
31F914	F	5⁄32"	1.75	14.00
31F913	G	11⁄64"	1.63	14.60
31F915	G	¼"	2.20	18.70

TINNED STEEL SOLDERING LUGS

Stock No.	C-Type	Hole Size No.	Fig.	100-999 per 100	1000-5999 Per 1000	5000-9999 Per 1000
31F2074	5704	8	B	1.66	13.23	11.91
31F2075	5705	10	B	1.66	13.23	11.91
31F2076	5706	4	E	1.66	13.23	11.91
31F2269	7441	6	A	1.16	9.26	8.36
31F2270	7442	8	A	1.12	8.93	8.04
31F2271	7445	8	C	1.17	9.37	8.43

*Locking type.

Stock No.	C-Type	Hole Size No.	Fig.	100-999 per 100	1000-5999 per 1000	5000-9999 per 1000
31F2276	7458*	4	D	1.81	14.55	13.09
31F2277	7460*	8	D	1.83	14.59	13.13
31F2278	7461*	10	D	1.83	14.59	13.13
31F2293	8466	6	F	1.55	12.39	11.15
31F2294	8467	6	F	2.75	22.05	19.84
31F2295	8468	8	F	2.98	23.77	21.39
31F2296	8473	10	C	1.55	12.43	11.19

THREADED BRASS BUSHING

No.	Lgt.	Thd.	O.D.	10 For	100 For
31F971	¼"	6-32	¼	.48	3.60
31F972	½"	6-32	¼	.72	5.50
31F973	¾"	6-32	¼	.90	6.75
31F974	1"	6-32	¼	1.02	7.65

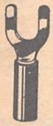
No.	Lgt.	Thd.	O.D.	10 For	100 For
31F975	¼"	8-32	5⁄16	.48	3.60
31F976	½"	8-32	5⁄16	.72	4.80
31F977	¾"	8-32	5⁄16	.90	7.25
31F978	1"	8-32	5⁄16	1.02	7.65

WALDOM

SOLDERLESS TERMINALS & CONNECTORS

WALDOM SOLDERLESS TERMINALS AND CONNECTORS

Terminals are made from the finest materials. Annealed Electrolytic copper and Electro-Tin plated. One-piece design internally serrated, strength gussets and chamfered edge.
KRIMPTITE®—Non-Insulated terminals make positive connections and save labor—the most uniformly reliable connection.
INSULKRIMP®—Has all the advantages of the KRIMPTITE® terminals, plus rigid vinyl plastic insulating sleeve.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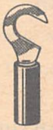
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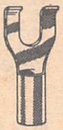
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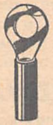
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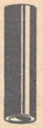
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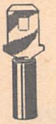
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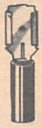
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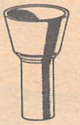
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SPADE TONGUE TERMINALS—FIG. A

BASIC DIMENSIONS				KRIMPTITE						INSULKRIMP					
Wire Range	Stud Size	Width	Stud Clearance	Length	Stock No.	Mfrs. Type	100-999 Per C	1000-4999 Per M	5000-Over Per M	Length	Stock No.	Mfrs. Type	100-999 Per C	1000-4999 Per M	Over 5000- Per M
22-18	3-4	1/4	7/32	5/8	31F518	S-1116	1.83	14.64	10.98	13/16	31F532	T-2116	4.24	33.92	25.44
22-18	5-6	19/64	7/32	5/8	31F519	S-1014	1.83	14.64	10.98	13/16	31F533	T-2014	4.24	33.92	25.44
22-18	8	19/64	7/32	5/8	31F520	S-1030	1.83	14.64	10.98	13/16	31F534	T-2030	4.24	33.92	25.44
22-18	10	5/16	5/16	3/4	31F521	S-1032	1.83	14.64	10.98	15/16	31F535	T-2032	4.24	33.92	25.44
16-14	5-6	19/64	7/32	5/8	31F522	S-1015*	1.83	14.64	10.98	13/16	31F536	T-2015+	4.24	33.92	25.44
16-14	8	19/64	7/32	5/8	31F523	S-1033	1.83	14.64	10.98	13/16	31F537	T-2033	4.24	33.92	25.44
16-14	10	23/64	9/32	3/4	31F524	S-1016*	1.83	14.64	10.98	15/16	31F538	T-2016+	4.24	33.92	25.44
12-10	10	3/8	5/16	25/32	31F525	S-1017	2.69	21.52	16.14	1 3/32	31F539	T-2017	5.49	43.92	32.94
				HOOK TONGUE TERMINALS—FIG. B											
22-18	5-6	5/16	5/16	23/32	30F626	S-1018	1.83	14.64	10.98	29/32	30F627	T-2018	4.24	33.92	25.44
				FLANGED SPADE TERMINALS—FIG. C											
22-18	5-6	19/64	7/32	5/8	31F526	S-1080*	1.83	14.64	10.98	13/16	31F540	T-2080+	4.24	33.92	25.44
22-18	8	19/64	7/32	5/8	31F527	S-1081	1.83	14.64	10.98	13/16	31F541	T-2081	4.24	33.92	25.44
22-18	10	19/64	7/32	5/8	31F528	S-1082	1.83	14.64	10.98	13/16	31F542	T-2082	4.24	33.92	25.44
16-14	5-6	19/64	7/32	5/8	31F529	S-1083	1.83	14.64	10.98	13/16	31F543	T-2083	4.24	33.92	25.44
16-14	8	19/64	7/32	5/8	31F530	S-1084	1.83	14.64	10.98	13/16	31F544	T-2084	4.24	33.92	25.44
16-14	10	19/64	7/32	5/8	31F531	S-1085	1.83	14.64	10.98	13/16	31F545	T-2085	4.24	33.92	25.44
				RING TONGUE TERMINALS—FIG. D											
22-18	1-2	7/32	5/32	33/64	31F546	S-1099	1.83	14.64	10.98	45/64	31F569	T-2099	4.24	33.92	25.44
22-18	3-4	7/32	5/32	33/64	31F547	S-1047	1.83	14.64	10.98	45/64	31F570	T-2047	4.24	33.92	25.44
22-18	5-6	9/32	1/4	41/64	31F548	S-1002*	1.83	14.64	10.98	53/64	31F571	T-2002+	4.24	33.92	25.44
22-18	8	5/16	5/16	23/32	31F549	S-1021	1.83	14.64	10.98	29/32	31F572	T-2021	4.24	33.92	25.44
22-18	10	5/16	5/16	23/32	31F550	S-1003*	1.83	14.64	10.98	29/32	31F573	T-2003+	4.24	33.92	25.44
22-18	1/4	15/32	.400	57/64	31F551	S-1004	2.69	21.52	16.14	1 5/64	31F574	T-2004	5.49	43.92	32.94
22-18	5/16	15/32	.400	57/64	31F552	S-1005	2.69	21.52	16.14	1 5/64	31F575	T-2005	5.49	43.92	32.94
22-18	3/8	9/16	9/16	1 7/64	31F553	S-1143	3.28	26.24	19.68	1 19/64	31F576	T-2143	5.49	43.92	32.94
16-14	3-4	11/32	5/16	1 4/64	31F554	S-1095	1.83	14.64	10.98	59/64	31F577	T-2095	4.24	33.92	25.44
16-14	5-6	1/4	7/32	19/32	31F555	S-1006*	1.83	14.64	10.98	25/32	31F578	T-2006+	4.24	33.92	25.44
16-14	8	5/16	9/32	45/64	31F556	S-1024	1.83	14.64	10.98	57/64	31F579	T-2024	4.24	33.92	25.44
16-14	10	5/16	9/32	45/64	31F557	S-1008*	1.83	14.64	10.98	57/64	31F580	T-2008+	4.24	33.92	25.44
16-14	1/4	15/32	.400	57/64	31F558	S-1009	2.69	21.52	16.14	1 5/64	31F581	T-2009	5.49	43.92	32.94
16-14	5/16	15/32	.400	57/64	31F559	S-1041	2.69	21.52	16.14	1 5/64	31F582	T-2041	5.49	43.92	32.94
16-14	3/8	9/16	9/16	1 7/64	31F560	S-1147	3.28	26.24	19.68	1 19/64	31F583	T-2147	5.49	43.92	32.94
12-10	8	3/8	5/16	3/4	31F561	S-1050	2.69	21.52	16.14	1 1/16	31F584	T-2050	5.49	43.92	32.94
12-10	10	3/8	5/16	3/4	31F562	S-1011	2.69	21.52	16.14	1 1/16	31F585	T-2011	5.49	43.92	32.94
12-10	1/4	17/32	13/32	59/64	31F563	S-1100	3.49	27.92	20.94	1 15/64	31F586	T-2100	5.82	46.56	34.92
12-10	5/16	17/32	13/32	59/64	31F564	S-1101	3.49	27.92	20.94	1 15/64	31F587	T-2101	5.82	46.56	34.92
12-10	3/8	19/32	31/64	1 1/32	31F565	S-1013	3.84	30.72	23.04	1 11/32	31F588	T-2013	6.46	51.68	38.76
				BUTT CONNECTORS—FIG. E											
22-18				9/16	31F566	S-1019*	2.04	16.32	12.24	15/16	31F589	T-2019+	5.01	40.08	30.06
16-14				9/16	31F567	S-1020*	2.04	16.32	12.24	15/16	31F590	T-2020+	5.01	40.08	30.06
12-10				9/16	31F568	S-1046	3.66	29.28	21.96	1 1/16	31F591	T-2046	6.84	54.72	41.04
				QUICK DISCONNECT PUSH-ON TYPE—FIG. F											
18-14			1/4 Male	21/32	31F592	S-1089*	2.05	16.40	12.30	27/32	31F594	T-2089+	4.55	36.40	27.30
18-14			1/4 Female	43/64	31F593	S-1090*	2.05	16.40	12.30	55/64	31F595	T-2090+	4.55	36.40	27.30

FOR HIGHLY CRITICAL APPLICATIONS:

VERSAKRIMP—Barrel seam is brazed with a special silver alloy; won't split open under any conditions.
AVIKRIMP—A plated brass sleeve is fitted over the barrel of the terminal and extends beyond it to grip the wire insulation. This is then insulated with an additional Nylon sleeve. For high heat, vibration.

RING TONGUE TERMINALS—FIG. D

BASIC DIMENSIONS				VERSAKRIMP						AVIKRIMP					
Wire Range	Stud Size	Width	Stud Clearance	Length	Stock No.	Mfrs. Type	100-999 Per C	1000-4999 Per M	5000-Over Per M	Length	Stock No.	Mfgs. Type	100-999 Per C	1000-4999 Per M	5000-Over Per M
22-18	3-4	7/32	5/32	27/64	31F596	SB-3047	3.18	25.44	19.08	5/8	30F612	SN-5047	6.55	53.19	39.91
22-18	5-6	7/32	5/32	27/64	31F597	SB-3001	3.18	25.44	19.08	5/8	30F613	SN-5001	6.55	53.19	39.91
22-18	10	9/32	1/4	35/64	31F598	SB-3098	3.18	25.44	19.08	3/4	30F614	SN-5098	6.55	53.19	39.91
22-18	1/4	15/32	.400	51/64	31F599	SB-3004	4.43	35.59	26.68	1	30F615	SN-5004	8.20	65.61	49.22
16-14	3-4	11/32	5/16	47/64	30F600	B-3095	3.18	25.44	19.08	59/64	30F616	N-5095	6.55	53.19	39.91
16-14	5-6	1/4	7/32	1/2	30F601	SB-3006	3.18	25.44	19.08	45/64	30F617	SN-5006	6.55	53.19	39.91
16-14	10	5/16	9/32	39/64	30F602	SB-3008	3.18	25.44	19.08	13/16	30F618	SN-5008	6.55	53.19	39.91
16-14	1/4	15/32	.400	51/64	30F603	SB-3009	4.43	35.59	26.68	13/16	30F619	SN-5009	8.20	65.61	49.22
12-10	10	3/8	5/16	3/4	30F604	B-3011	4.43	35.59	26.68	1 3/64	30F620	N-5011	8.20	65.61	49.22
12-10	1/4	17/32	13/32	59/64	30F605	B-3100	5.12	40.94	30.71	1 7/32	30F621	N-5100	6.55	53.19	39.91
				SPADE TONGUE TERMINALS—FIG. A											
22-18	5-6	1/4	7/32	17/32	30F606	SB-3118	3.18	25.44	19.08	47/64	30F622	SN-5118	6.55	53.19	39.91
22-18	10	19/64	7/32	17/32	30F607	SB-3120	3.18	25.44	19.08	47/64	30F623	SN-5120	6.55	53.19	39.91
16-14	5-6	1/4	7/32	17/32	30F608	SB-3123	3.18	25.44	19.08	47/64	30F624	SN-5123	6.55	53.19	39.91
16-14	10	19/64	7/32	17/32	30F609	SB-3104	3.18	25.44	19.08	47/64	30F625	SN-5104	6.55	53.19	39.91

NYLON INSULATED CLOSED-END CONNECTORS—FIG. G

Wire Range	O.D.	Barrel Length	I.D.	Length	Stk. No.	Mfrs. Type	100-999 Per C	1000-4999 Per M	5000- Over Per M	Circular Mil Area
22-14	5/16	11/32	1/4	39/64	30F610	CE-2214	3.09	24.67	18.54	600-5,180
16-10	7/16	3/8	3/8	23/32	30F611	CE-1610*	4.60	36.82	27.61	2,400-13,000

SOLDERLESS TERMINALS & CONNECTOR ASSORTMENTS—SEE PRECEDING PAGE

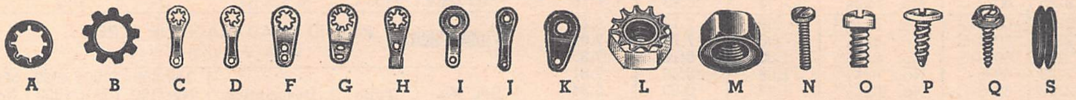
Type K-120. Contains 620 KRIMPTITE® (non-insulated) terminals. Type indicated by (*), Universal Crimping Tool.
30F628. NET each **14.95**

Type K-140. Contains 640 INSULKRIMP® (insulalted) terminals. Type indicated by (+), Universal Crimping Tool.
30F629. NET each **26.95**

Type K-130. Contains 630 insulated and non-insulated terminals. Type indicated by (*) and (+), Universal Crimping Tool.
30F630. NET each **20.95**

Type CT-4050. Universal Crimping Tool—Crimps both insulated and non-insulated terminal wires 22 thru 10.
30F631. NET each **3.95**

ELECTRONIC HARDWARE AND TERMINALS



SHAKERPROOF PRODUCTS

INTERNAL LOCK WASHERS—FIG. A

Spring Steel-Cadmium Plated

Stk. No.	Type	Screw Size	100-999 Net/100	1000-4999 Net/1000	5000-Over Net/1000
30F632	MW-202	No. 2	.50	4.10	2.85
30F633	MW-203	No. 3	.43	3.53	2.45
30F634	MW-204	No. 4	.30	2.46	1.71
30F635	MW-205	No. 5	.34	2.79	1.94
30F636	MW-206	No. 6	.30	2.46	1.71
30F637	MW-208	No. 8	.33	2.71	1.88
30F638	MW-210	No. 10	.33	2.71	1.88
30F639	MW-212	No. 12	.41	3.36	2.34
30F640	MW-214	¼	.44	3.61	2.51
30F641	MW-218	5/16	.57	4.67	3.25
30F642	MW-220	⅜	.79	6.48	4.50

EXTERNAL LOCK WASHERS—FIG. B—Spring Steel-Cad. Plated

30F643	MW-103	No. 3	.84	6.89	4.79
30F644	MW-104	No. 4	.30	2.46	1.71
30F645	MW-105	No. 5	.34	2.79	1.94
30F646	MW-106	No. 6	.30	2.46	1.71
30F647	MW-108	No. 8	.33	2.71	1.88
30F648	MW-110	No. 10	.33	3.36	1.88
30F649	MW-112	No. 12	.41	2.71	2.34
30F650	MW-114	¼	.44	3.61	2.51
30F651	MW-118	5/16	.57	4.67	3.25
30F652	MW-120	⅜	.79	6.48	4.50

LOCKING TYPE TERMINALS—.018 Bronze—Hot Tin Dipped

Stk. No.	Type	Fig.	Length	100-999 Net/100	1000-4999 Net/1000	5000-Over Net/1000
30F653	T-101-04	C	⅞	1.09	8.94	6.21
30F654	T-101-06	C	⅞	1.09	8.94	6.21
30F655	T-101-08	C	⅞	1.09	8.94	6.21
30F656	T-103-04	D	13/16	1.09	8.94	6.21
30F657	T-103-06	D	13/16	1.09	8.94	6.21
30F658	T-103-08	D	13/16	1.09	8.94	6.21
30F659	T-106-04	E	⅝	1.09	8.94	6.21
30F660	T-106-06	E	⅝	1.09	8.94	6.21
30F661	T-106-08	E	⅝	1.09	8.94	6.21
30F662	T-102-04	F	23/32	1.09	8.94	6.21
30F663	T-102-06	F	23/32	1.09	8.94	6.21
30F664	T-102-08	F	23/32	1.09	8.94	6.21
30F665	T-104-04	G	⅝	1.09	8.94	6.21
30F666	T-104-06	G	⅝	1.09	8.94	6.21
30F667	T-104-08	G	⅝	1.09	8.94	6.21
30F668	T-108-04	H	25/32	1.21	9.92	6.90
30F669	T-108-06	H	25/32	1.21	9.92	6.90
30F670	T-108-08	H	25/32	1.21	9.92	6.90
30F671	T-108-10	H	51/64	1.21	9.92	6.90

PLAIN TYPE TERMINALS—0.18 Brass—Hot Tin Dipped

30F672	T-522-04	I	21/32	.53	4.35	3.00
30F673	T-522-05	I	21/32	.53	4.35	3.00
30F674	T-522-06	I	21/32	.53	4.35	3.00
30F675	T-501-06	J	⅞	.58	4.75	3.30
30F676	T-501-08	J	⅞	.58	4.75	3.30
30F677	T-501-10	J	57/64	.58	4.75	3.30
30F678	T-506-06	K	⅝	.58	4.75	3.30
30F679	T-506-08	K	⅝	.58	4.75	3.30

*Final digit on type number indicates screw size.

EXTERNAL LOCK WASHER KEPS—FIG. L

Steel Cadmium Plated

Stk. No.	Type	Nut Size	100-999 Net/100	1000-4999 Net/1000	5000 Over Net/1000
30F680	F-11-041800	4-40x¼x3/32	2.48	20.34	14.14
30F681	F-11-061800	6-32x5/16x7/64	1.96	16.07	11.17
30F682	F-11-081800	8-32x11/32x⅛	2.02	16.56	11.51
30F683	F-11-101800	10-32x⅜x⅛	2.12	17.38	12.08
30F684	F-11-250800	¼x20x7/16x3/16	1.67	13.69	9.52

SEMICONDUCTOR MOUNTING KEPS—FIG. M

Nut-Brass-Nickel Plated Washer-Stainless Steel

Stk. No.	Type	Thread	100-999 Net/100	1000-4999 Net/1000	5000-Over Net/1000
30F750	F-5753	10-32	3.58	31.36	26.88
30F571	F-6160	¼-28	5.22	45.64	39.12
30F572	F-6161A	5/16-18	8.07	70.63	60.54
30F573	F-6162A	3/16-24	7.72	67.62	57.96
30F574	F-6163A	⅜-24	10.48	91.70	78.60

PAN HEAD SHEET METAL SCREWS—FIG. P

Type A-Cadmium Plated

Stk. No.	Type	Size	100-999 Net/100	1000-4999 Net/1000	5000-Over Net/1000
30F685	F-596C	4x½"	.73	5.99	4.16
30F686	F-033C	6x¼"	.82	6.72	4.67
30F687	F-597C	6x⅜"	.84	6.89	4.79
30F688	F-034C	6x½"	.89	7.30	5.07
30F689	F-035C	6x¾"	.97	7.95	5.53
30F690	F-036C	8x¼"	.97	7.95	5.53
30F691	F-598C	8x⅜"	1.02	8.36	5.81
30F692	F-037C	8x½"	1.05	8.61	5.99
30F693	F-038C	8x1"	1.34	10.99	7.64

BINDER HEAD MACHINE SCREWS—FIG. N

Steel-Cadmium Plated

30F694	F-591C	2-56x⅛"	.49	4.02	2.79
30F695	F-592C	2-56x¼"	.44	3.61	2.51
30F696	F-593C	2-56x½"	.47	3.85	2.70
30F697	F-594C	2-56x⅝"	.53	4.35	3.02
30F698	F-020C	4-40x¼"	.47	3.85	2.68
30F699	F-021C	4-40x½"	.51	4.18	2.91
30F700	F-022C	4-40x¾"	.58	4.76	3.31
30F701	F-014C	6-32x½"	.60	4.92	3.42
30F702	F-621C	6-32x⅝"	.66	5.41	3.76
30F703	F-015C	6-32x¾"	.71	5.82	4.05
30F704	F-023C	8-32x¼"	.68	5.58	3.88
30F705	F-024C	8-32x⅜"	.73	5.99	4.16
30F706	F-025C	8-32x½"	.80	6.56	4.56
30F707	F-026C	8-32x¾"	.90	7.38	5.13
30F708	F-577C	10-32x½"	.92	7.54	5.24
30F709	F-578C	10-32x¾"	1.09	8.94	6.21

BINDER HEAD MACHINE SCREWS—FIG. N

Brass-Nickel Plated

30F710	F-503B-C	6-32x¼"	1.08	8.86	6.16
30F711	F-504B-C	6-32x⅜"	1.15	9.43	6.56
30F712	F-014B-C	6-32x½"	1.30	10.66	7.41
30F713	F-015B-C	6-32x¾"	1.58	12.96	9.01
30F714	F-023B-C	8-32x¼"	1.60	13.12	9.12
30F715	F-024B-C	8-32x⅜"	1.68	13.78	9.58
30F716	F-025B-C	8-32x½"	1.92	15.74	10.94
30F717	F-026B-C	8-32x¾"	2.35	19.27	13.40

FILLISTER HEAD MACHINE SCREWS—FIG. O

Steel-Cadmium Plated

30F718	F-606C	2-56x¼"	.44	3.61	2.51
30F719	F-607C	2-56x½"	.47	3.85	2.70
30F720	F-608C	4-40x¼"	.47	3.85	2.70
30F721	F-609C	4-40x½"	.51	4.18	2.91
30F722	F-610C	4-40x¾"	.58	4.76	3.31
30F723	F-611C	6-32x¼"	.53	4.35	3.02
30F724	F-612C	6-32x½"	.60	4.92	3.42
30F725	F-613C	6-32x¾"	.71	5.82	4.05
30F726	F-614C	8-32x⅜"	.73	5.99	4.16
30F727	F-615C	8-32x½"	.80	6.56	4.56
30F728	F-616C	8-32x¾"	.90	7.38	5.13
30F729	F-617C	10-32x½"	.92	7.54	5.24
30F730	F-618C	10-32x¾"	1.09	8.94	6.21

HEX WASHER HEAD SHEET METAL SCREWS—FIG. Q

Slotted Indented Head-Type A-Cadmium Plated

30F731	F-060C	4x⅜"	.77	6.31	4.39
30F732	F-061C	4x½"	.80	6.56	4.56
30F733	F-056C	6x¼"	.90	7.38	5.13
30F734	F-057C	6x⅜"	.92	7.54	5.24
30F735	F-050C	6x½"	.98	8.04	5.59
30F736	F-058C	6x⅝"	1.02	8.36	5.81
30F737	F-054C	6x¾"	1.07	8.77	6.10
30F738	F-051C	8x¼"	1.07	8.77	6.10
30F739	F-052C	8x⅜"	1.12	9.18	6.38
30F740	F-053C	8x½"	1.16	9.51	6.61
30F741	F-055C	8x⅝"	1.18	9.68	6.73
30F742	F-059C	8x¾"	1.32	10.82	7.52

VINYL GROMMETS—FIG. S

Stk. No.	Type	I.D.	Chassis Hole	100-999 Net/100	1000-4999 Net/1000	5000-Over Net/1000
30F743	G-401C	⅛	¼	.88	7.22	5.02
30F744	G-402C	3/16	5/16	.99	8.12	5.64
30F745	G-403C	¼	⅜	1.16	9.51	6.61
30F746	G-404C	5/16	7/16	1.24	10.17	7.09
30F747	G-405C	⅜	½	1.24	10.17	7.09
30F748	G-406C	½	⅝	2.16	17.71	12.31
30F749	G-407C	⅝	⅞	3.71	30.42	21.15

GC
ELECTRONICS

GENERAL CEMENT HARDWARE

BUY AT FACTORY
COMPETITIVE QUANTITY PRICES

SHEET METAL SCREWS

Hex head—slotted—self-tapping—nickel plated

Stock No.	Type	Description	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2069	5695-C	No. 6x⅝"	.93	7.42	6.68
31F2070	5696-C	No. 8x⅝"	1.08	8.60	7.74
31F2124	6090-C	No. 4x½"	.73	5.88	5.28
31F2125	6091-C	No. 6x¼"	.83	6.69	6.02
31F2126	6092-C	No. 6x⅜"	.85	6.83	6.16
31F2127	6093-C	No., 6x½"	.90	7.18	6.45
31F2128	6094-C	No. 6x¾"	.98	7.79	7.02
31F2129	6095-C	No. 8x⅜"	1.03	8.16	7.35
31F2130	6096-C	No. 8x½"	1.06	8.46	7.61
31F2132	6099-C	No. 10x½"	1.24	9.93	8.94
31F2133	6100-C	No. 10x¾"	1.37	10.95	9.85
31F2291	8102-C	No. 8x¼"	.98	7.87	6.95

ROUND HEAD MACHINE SCREWS

Steel—Nickel Plated

Stk. No.	Type	Description	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2033	5651-C	4-36x⅝"	.68	5.49	4.99
31F2034	5652-C	4-40x⅝"	.56	4.44	4.00
31F2035	5653-C	6-32x⅝"	.67	5.29	4.76
31F2037	5655-C	10-32x⅝"	1.01	8.16	7.35
31F2085	6005-C	4-36x¼"	.47	3.79	3.41
31F2086	6005-AC	4-40x¼"	.47	3.79	3.41
31F2087	6005-BC	4-40x½"	.52	4.14	3.72
31F2088	6005-CC	4-40x¾"	.71	5.75	5.17
31F2089	6006-C	4-36x½"	.51	4.10	3.70
31F2090	6007-C	4-36x¾"	.71	5.75	5.17
31F2091	6008-C	6-32x¼"	.52	4.17	3.74
31F2092	6009-C	6-32x½"	.61	4.83	4.35
31F2093	6010-C	6-32x¾"	.72	5.68	5.12
31F2094	6011-C	6-32x1"	.82	6.54	5.88
31F2095	6013-C	8-32x¼"	.69	5.44	4.90
31F2096	6014-C	8-32x⅜"	.74	5.86	5.28
31F2097	6015-C	8-32x½"	.80	6.35	5.71
31F2098	6016-C	8-32x¾"	.91	7.27	6.55
31F2099	6017-C	8x32x1"	1.05	8.33	7.50
31F2100	6020-C	10-32x½"	.93	7.48	6.73
31F2101	6022-C	10-32x1"	1.23	9.85	8.87
31F2187	7124-C	3-48x¾"	.57	4.56	4.01
31F2188	7130-C	2-56x¼"	.44	3.46	3.12
31F2189	7131-C	2-56x½"	.47	3.77	3.40
31F2190	7132-C	2-56x¾"	.54	4.34	3.91
31F2191	7138-C	4-36x⅜"	.49	3.89	3.50
31F2192	7141-C	6-32x1¼"	.98	7.84	7.06
31F2193	7142-C	8-32x1¼"	1.21	9.67	8.70
31F2194	7143-C	10-32x1½"	1.62	12.96	11.66
31F2195	7148-C	6-32x2"	1.47	11.83	10.65

PHILLIPS TYPE ROUND HEAD

Machine Screws—Steel—Nickel Plate

Stk. No.	Type	Description	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2305	8511-C	6-32x¼"	1.16	9.28	8.33
31F2306	8512-C	6-32x½"	1.05	8.36	7.43
31F2307	8513-C	6-32x¾"	1.20	9.55	8.60
31F2312	8518-C	8-32x1"	1.50	11.99	10.79

ROUND HEAD WOOD SCREWS

Steel—Nickel Plated

Stk. No.	Type	Description	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2134	6114-C	No. 4x½"	.76	6.11	5.39
31F2136	6117-C	No. 6x1"	1.18	9.38	8.44
31F2137	6118-C	No. 8x¾"	1.12	8.97	8.06
31F2287	8071-C	No. 8x1¼"	1.55	12.43	11.18

OVAL HEAD RACK AND CABINET SCREWS

Steel—Nickel Plated

Stk. No.	Type	Description	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2066	5692-C	8-32x⅝"	.85	6.81	6.01
31F2067	5693-C	10-32x⅝"	1.01	8.15	7.19
31F2176	6540-C	6-32x½"	.61	4.83	4.35
31F2177	6541-C	6-32x¾"	.72	5.68	5.12
31F2178	6542-C	8-32x¾"	.91	7.27	6.55
31F2179	6543-C	10-32x¾"	1.10	8.75	7.88
31F2313	8848-C	10-32x½"	1.15	9.12	8.21

ORNAMENTAL HEAD SCREWS

Steel—Statuary-Bronze Plated

31F2010	1097-C	6-32x¾"	1.25	10.07	9.06

STEEL SPADE BOLTS

Nickel Plated

Stk. No.	Type	Description	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2121	6081-C	6-32x1 11/16"	1.13	8.97	8.08
31F2122	6082-C	6-32x⅞"	1.52	12.20	10.99
31F2123	6084-C	8-32x1 15/32"	2.87	22.93	20.66

BINDING HEAD MACHINE SCREWS

Steel—Nickel Plated

Stock No.	Type	Description	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2196	7151-C	6-32x3/16"	.52	4.12	3.70
31F2197	7152-C	6-32x¼"	.52	4.15	3.73
31F2198	7153-C	6-32x⅜"	.56	4.41	3.97
31F2199	7154-C	5-36x¼"	.52	4.12	3.70
31F2201	7158-C	8-32x5/16"	.71	5.62	5.06

ROUND HEAD MACHINE SCREWS

Brass—Nickel Plated

Stk. No.	Type	Description	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2038	5657-C	2-56x¼"	.66	5.21	4.70
31F2039	5658-C	2-56x½"	.78	6.29	5.66
31F2040	5659-C	2-56x⅝"	.85	6.83	6.14
31F2041	5660-C	2-56x¾"	.91	7.35	6.61
31F2042	5661-C	3-48x¾"	1.03	8.16	7.37
31F2043	5662-C	4-36x¼"	.78	6.32	5.68
31F2047	5666-C	4-40x¼"	.78	6.32	5.68
31F2048	5667-C	4-40x½"	1.00	7.94	7.14
31F2050	5669-C	4-40x¾"	1.18	9.34	8.41
31F2051	5670-C	6-32x⅜"	1.13	9.04	8.14
31F2052	5671-C	6-32x⅝"	1.40	11.24	10.02
31F2053	5672-C	6-32x1¼"	2.14	17.46	15.68
31F2054	5673-C	6-32x2"	3.61	28.81	25.94
31F2057	5676-C	8-32x1¼"	3.21	25.72	23.16
31F2058	5677-C	10-32x½"	2.38	19.11	17.20
31F2059	5678-C	10-32x⅝"	2.65	21.24	19.11
31F2061	5680-C	10-32x1"	3.45	27.52	24.78
31F2297	8501-C	6-32x¼"	1.06	8.46	7.62
31F2298	8502-C	6-32x½"	1.27	10.17	9.34
31F2299	8503-C	6-32x¾"	1.55	12.42	11.18
31F2302	8506-C	8-32x½"	1.88	15.06	13.55
31F2303	8507-C	8-32x¾"	2.30	18.37	16.53
31F2304	8508-C	8-32x1"	2.74	21.90	19.72

MOUNTING NUTS

Steel—Nickel Plated

Stock No.	Type	Thread	Thick.	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2211	7235-C	¼-20	7/16"	1.30	10.41	9.37
31F2112	6050-AC	⅜-32	9/16"	1.44	11.47	10.32
31F2113	6050-BC	15/32-32	9/16"	1.76	14.11	12.70
31F2114	*6050-CC	15/32-32	7/16"	3.40	27.22	24.50

* Round Ring Nut-Toggle Switch Size

HEXAGON NUTS

Steel—Nickel Plated

Stk. No.	Type	Description		100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2105	6041-C	4-36	¼"	.66	5.17	4.66
31F2106	6041-AC	4-40	¼"	.66	5.17	4.66
31F2107	6042-C	6-32	¼"	.67	5.41	4.87
31F2108	6043-C	8-32	¼"	.72	5.73	5.17
31F2109	6044-C	10-32	⅜"	.95	7.53	6.77
31F2110	6045-BC	5-40	5/16"	.72	5.70	5.18
31F2111	6049-C	10-32	⅜"	.85	6.84	6.16
31F2207	7225-C	2-56	3/16"	.67	5.41	4.87
31F2208	7226-C	3-48	3/16"	.67	5.41	4.87
31F2209	7230-C	6-32	5/16"	.72	5.70	5.18
31F2210	7233-C	8-32	11/32"	.72	5.73	5.18

HEXAGON NUTS

Brass—Not Plated

Stk. No.	Type	Description		100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2071	5697-C	6-32	5/16"	1.37	10.96	9.86
31F2072	5698-C	8-32	¼"	1.15	9.11	8.20
31F2214	7241-C	2-56	3/16"	.96	7.67	6.89
31F2215	7242-C	3-48	3/16"	.88	6.99	6.29
31F2216	7243-C	4-36	¼"	1.16	9.23	8.37
31F2217	7244-C	4-40	¼"	1.15	9.14	8.23
31F2218	7245-C	6-32	¼"	1.15	9.11	8.22
31F2219	7248-C	8-32	5/16"	1.37	10.96	9.86
31F2220	7249-C	10-32	⅜"	1.50	12.02	10.78

WING NUTS

Nickel Plated

31F2183	6658-C	6-32	3.25	25.99	23.30
31F2184	6659-C	8-32	2.40	19.26	17.33
31F2185	6660-C	10-32	2.68	21.46	19.31

KNURLED THUMB NUTS

Brass—Nickel Plated....

Stk. No.	Type	Description	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2180	6655-C	6-32	2.22	17.79	16.02
31F2181	6656-C	8-32	2.22	17.79	16.02

GENERAL CEMENT HARDWARE

BRASS ACORN NUTS—NICKEL PLATED

Stock No.	Type	Thread	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2102	6031-C	6-32	2.76	22.05	19.85
31F2103	6032-C	8-32	2.94	23.52	21.17

INTERNAL LOCK WASHERS—CADMIUM PLATED

Stock No.	Type	For Screw Size	O.D.	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2243	7322-C	No. 2		.71	5.66	5.10
31F2244	7323-C	No. 3		.62	4.93	4.44
31F2245	7324-C	No. 4		.44	3.56	3.20
31F2246	7326-C	No. 6	9/32''	.44	3.56	3.20
31F2247	7328-C	No. 8	21/64''	.49	3.90	3.59
31F2248	7330-C	No. 10	3/8''	.49	3.90	3.59
31F2249	7332-C	No. 1/4''	15/32''	.64	5.14	4.64
31F2250	7333-C	No. 5/16''	19/32''	.80	6.40	5.62
31F2251	7334-C	No. 3/8''	11/16''	1.08	8.60	7.74
31F2252	7335-C	No. 3/8''	9/16''	1.22	9.78	8.80
31F2253	7338-C	No. 15/32''	19/32''	1.55	12.38	11.14

METAL WASHERS—NICKEL PLATED

31F2138	6154-C	No. 4	9/32''	.23	1.80	1.62
31F2139	6155-C	No. 6	3/8''	.23	1.80	1.62
31F2140	6156-C	No. 8	7/16''	.23	1.80	1.62
31F2141	6157-C	No. 10	1/2''	.39	3.12	2.81
31F2241	7306-C	No. 10	3/8''	.37	3.01	2.71
31F2242	7307-C	No. 10	7/16''	.37	3.01	2.71

EXTERNAL LOCK WASHERS—CADMIUM PLATED

31F2254	7354-C	No. 4	.44	3.56	3.20
31F2255	7356-C	No. 6	.44	3.56	3.20
31F2256	7358-C	No. 8	.49	3.90	3.51
31F2257	7360-C	No. 10	.47	3.79	3.42
31F2258	7361-C	No. 1/4''	.64	5.12	4.61
31F2259	7363-C	No. 3/8''	.95	7.53	6.77

EXTRUDED FIBRE WASHERS

31F2171	6525-C	No. 6	.85	6.76	6.09
31F2172	6526-C	No. 8	.85	6.76	6.09
31F2173	6527-C	No. 10	.93	7.38	6.64
31F2174	6528-C	No. 1/4"	.93	7.38	6.64
31F2175	6529-C	No. 3/8"	.96	7.76	6.99

SPLIT TYPE LOCK WASHERS—CADMIUM PLATED

31F2160	6503-C	No., 4	.56	4.41	3.97
31F2161	6504-C	No. 6	.47	3.82	3.44
31F2162	6505-C	No. 8	.46	3.63	3.26
31F2163	6506-C	No. 10	.52	4.23	3.81

FLAT FIBRE WASHERS

31F2165	6513-C	No. 6	.41	3.23	2.92
31F2166	6514-C	No. 8	.41	3.23	2.92
31F2167	6515-C	No., 10	.41	3.23	2.92
31F2168	6516-C	No. 1/4"	.46	3.61	3.25
31F2169	6517-C	No. 3/8"	.75	6.00	5.40
31F2170	6518-C	No. 15/32"	.75	6.00	5.40

RIVETS—NICKEL PLATED

Stock No.	Type	Shank Diam.	Length	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2232	7276-C	.059"	5/32"	.86	6.84	6.16
31F2233	7277-C	.059"	3/16"	.86	6.84	6.16
31F2235	7280-C	.088"	3/16"	.93	7.38	6.64
31F2236	7283-C	.098"	3/16"	.96	7.76	6.98
31F2237	7286-C	.121"	1/8"	.75	6.08	5.48
31F2238	7288-C	.121"	3/16"	.59	4.65	4.19
31F2239	7290-C	.121"	1/4"	.61	4.85	4.37

CORD STRAIN RELIEFS

Stock No.	Type	Description	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2186	6675-C	Fits P.O.S.J. Cord.	5.16	41.27	37.15

BRASS EYELETS

Stock No.	Type	Shank Diam.	Length	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2221	7251-C	.087"	1/8"	.27	2.22	2.39
31F2222	7252-C	.087"	5/32"	.34	2.79	2.39
31F2223	7253-C	.087"	7/32"	.46	3.14	2.83
31F2224	7254-C	.087"	11/32"	1.06	8.53	7.68
31F2225	7257-C	.123"	5/32"	.49	3.90	3.51
31F2226	7259-C	.123"	7/32"	.39	3.14	2.83
31F2227	7260-C	.123"	1/4"	.51	4.10	3.69
31F2228	7261-C	.123"	9/32"	.52	4.16	3.75
31F2231	7269-C	.182"	.145"	.31	2.48	2.23

RUBBER BUTTON BUMPERS

Stock No.	Type	For Hole Dia.	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2284	7596-C	3/16"	1.40	11.27	10.15
31F2285	7597-C	1/4"	2.06	16.51	14.86
31F2286	7598-C	3/8"	3.31	26.56	23.91

SNAP BUTTON HOLE PLUGS

31F2015	1711-C	3/8"	3.02	24.11	21.70
31F2016	1712-C	1/2"	3.02	24.11	21.70
31F2017	1713-C	5/8"	3.23	25.87	23.30
31F2018	1714-C	3/4"	3.53	28.22	25.40

CUP FINISHING WASHERS—NICKEL PLATED

Stock No.	Type	Size	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2142	6161-C	No. 6	.39	3.12	2.81
31F2143	6162-C	No. 8	.41	3.31	2.98
31F2144	6163-C	No. 10	.54	4.38	3.95

TINNERMAN SPEED NUTS

31F2116	6052-C	No. 6	.76	6.11	5.50

C-WASHERS AND RETAINING RINGS

Stock No.	Type	For Shaft Diam.	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2145	6182-C	3/16"	.93	7.38	6.64

RUBBER GROMMETS

Stock No.	Type	Mtg. Hole D.	I.D.	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2000	1041-2C	1/4"	1/8"	1.10	8.75	7.88
31F2001	1041-C	5/16"	3/16"	1.24	9.88	8.89
31F2002	1042-C	3/8"	1/4"	1.65	13.23	11.91
31F2003	1043-1C	5/8"	1/2"	2.82	25.87	23.30
31F2004	1043-C	1/2"	3/8"	1.86	14.85	13.37
31F2080	5711-C	3/4"	9/16"	3.46	27.70	24.94
31F2081	5712-C	9/16"	7/16"	5.05	40.40	36.36
31F2082	5715-C	15/32"	5/16"	6.66	53.27	47.95
31F2083	5716-C	7/8"	5/8"	5.63	44.98	40.50
31F2084	5717-C	1"	11/16"	11.32	90.48	81.44
31F2282	7566-C	3/8"	1/4"	2.40	19.14	17.23
31F2283	7569-C	7/8"	3/8"	5.64	45.01	40.50

RUBBER BUMPERS

Stock No.	Type	O.D.	High	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2006	1075-BC*	3/8"	3/16''	.90	7.15	6.44
31F2007	1075-CC*	1/2"	1/4"	1.44	11.47	10.32
31F2008	1075-FC*	5/8"	5/16''	2.18	17.39	15.65
31F2009	1075-C†	3/8"	......	1.81	14.48	13.03

HAIR PIN COTTERS

Stock No.	Type	Length	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2263	7378-C	1/2"	.41	3.23	2.92
31F2264	7379-C	21/32"	.49	3.85	3.47

CABLE HOLDER CLAMPS

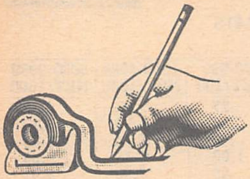
Stock No.	Type	For Cable	100-999 Per 100	1000-4999 Per 1000	5000-9999 Per 1000
31F2149	6251-C	1/8''-3/16''	.96	7.67	6.90
31F2150	6252-C	3/16''-1/4''	1.10	8.70	7.73
31F2151	6253-C	5/16''-1/2''	1.24	9.93	8.92
31F2281	7503-C	1/4''-5/16''	1.70	13.52	12.17

FELT PADS

Stock No.	Type	Description	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2005	1071-C	1/2" O.D.x1/4"th.	.29	2.33	2.10

ELECTRONIC ACCESSORIES

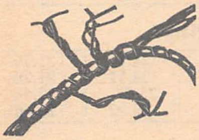
LABELON PLASTIC TAPE



Write on tape with pen, pencil, or stylus . . . it won't rub off! For marking wire leads, chassis terminals, coding tubes . . . a hundred identification uses! Your message is permanent and tamper-proof! . . . can't be smudged or smeared. Resists dirt, water, oil, and acid. Sticks firmly without moistening. Strips off easily! 400'' rolls. Shpg. wt. 3 oz.

Stk. No.	Wid.	Color	1-11	12-23	24-143	144-239	240 up
37F350	½''	Blue	1.71	1.57	1.48	1.40	1.31
37F351	½''	Red	1.71	1.57	1.48	1.40	1.31
37F352	¾''	Blue	2.11	1.93	1.82	1.72	1.61
37F353	¾''	Red	2.11	1.93	1.82	1.72	1.61
37F354	1''	Blue	2.89	2.65	2.50	2.36	2.21
37F355	1''	Red	2.89	2.65	2.50	2.36	2.21

ILLUMITRONIC ENGINEERING SPIRAL WRAP



Spirally cut polyethylene tubing, desirable for cabling loose wires into neat cables. Replaces cable lacing, prevents wire abrasion, replaces spaghetti, and will insulate tools. Allows individual wires to leave cable at any point, excellent insulator, low initial cost. reusable. Shpg. wt., 1 lb./ft.

					Per 100 Feet	
Stk. No.	Type	Min. OD	Color	Per Ft. 1-99	100-999	1000-up
36F267	SWP-¼	¼	Red	.08	6.00	5.55
36F269	SWP-¼	¼	Black	.08	6.00	5.55
36F270	SWP-⅜	⅜	White	.13	9.50	8.40
36F271	SWP-⅜	⅜	Red	.13	9.50	8.40
36F273	SWP-⅜	⅜	Black	.13	9.50	8.40
36F274	SWP-³⁄₁₆	³⁄₁₆	White	.07	5.30	4.95
36F275	SWP-¼*	¼	White	.08	6.00	5.55

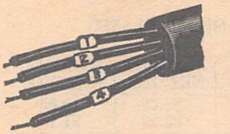
*Elec. cable wrapping.

LUDLOW CABLE LACING CORD

Type N. Number 6 hard twist pure flax electric cable lacing cord. Waxed. Tests at 33 pounds. Completely mildew-proof to meet military specifications number MIL-T-713A. Type N class III. Approximate wt., 1 lb.

36F885. NET.. **3.50**

BRADY B-500 WIRE MARKERS



Self-sticking, all temperature wire markers, used to identify wires, circuits, panels and assemblies accurately. Over 2000 different markers available. 1½'' long strips. Shpg. wt., 2 oz.

		NET PER CARD ASSORTED		
Stock No.	Marking	1-24	25-99	100-249
30F200	1-33	**.30**	**.20**	**.16**
30F201	34-66			
30F202	67-99			
30F203	A-Z			

Write for Literature on other codes available.

● *NEW* BRADY B-400 SOLID NUMBER ELECTRONIC WIRE MARKERS

Self sticking ½'' long miniature markers. 150 individual numbers per card. Completely resistant to oil, heat. Permanent and legible, will stick and stay anywhere without creeping or curling.

*When ordering specify individual number 0 to 99.

Stk. No.	Number	1-24	25-99	100-up
30F204	0-99	.40	.27	.22

● *NEW* BRADY B-400 CONSECUTIVE NUMBER ELECTRONIC WIRE MARKERS

Same as above but, numbers run consecutively. Ideal for marking cables or individual wire lines. The reinforced plastic markers are unaffected by major solvents. 150 markers per card (2''x9'').

Stk. No.	Numbers	1-24	25-99	100-up
30F205	0-49	**.40**	**.27**	**.22**
30F206	50-99			
30F207	100-132			
30F208	133-165			
30F209	166-198			

● *NEW* BRADY B-400 SOLID CAPITAL LETTER ELECTRONIC WIRE MARKERS

Similar to Brady individual number series but, alphabetical letters. Ideal for combinations or individual coding of circuits. Permanent marking to adverse conditions through use of Gardkote adhesive. 150 letters per card.

*When ordering specify individual letter A to Z.

Stk. No.	Letter	1-24	25-99	100-up
30F210	A to Z	.40	.27	.22

WALSCO PRODUCTS

PANEL DECALS

TECHNICAL
DECALS

A complete line of Decals for easy labeling of elec. equip. Now you can label any electronics equipment you build to look just like the factory manufactured item! Insure top appearance, safety and usefulness. Water decal sets transfer to almost any surface. Easy to apply. Each label set is complete. Contains a wide variety of choices for labels and plenty of spares and duplicates, totaling hundreds of labels; Wt., 2 oz.

WHITE LETTERING

51F902. Type 2100. Transmitter.
51F903. Type 2101. Instruments.
51F900. Type 2102. Receiver.
51F901. Type 2103. Television.
51F904. Type 2104. Dials.
51F905. Type 2105. Audio.
51F906. Type 2106. Receiving tube set.
51F915. Type 2115. Alphabets.
51F916. Type 2116. Trademarks.

GOLD LETTERING

51F911. Type 2111. Panel Labels.
51F919. Type 2135. Alphabets.

RED LETTERING

51F921. Type 2145. Alphabets.

NET EACH 1.32

BLACK LETTERING

51F907. Type 2108. Transmitter.
51F908. Type 2109. Instruments.
51F913. Type 2112. Receiver.
51F912. Type 2113. Television.
51F909. Type 2110. Dials.
51F910. Type 2107. Audio.
51F917. Type 2125. Alphabets.

TEK-TITLES

Handsome gold and silver foil labels designed to identify controls, knobs, switches and other electronic components. Comes in sheets of over one hundred different labels. Has stick-on backing.

Stk. No.	Type	Description	NET
51F812	42-220	Stereo & Hi Fi Systems (Gold on white)	**1.32**
51F813	42-222	Stereo & Hi Fi Systems (Silver on black)	
51F814	42-224	Transistor Titles (Silver on black)	
51F817	42-230	Lubrication Titles (Silver on black)	
51F818	42-232	Maintenance & Cal. (Gold on white)	
51F819	42-234	Repairman's Titles (Gold on white)	
51F820	42-236	Sound Systems (Gold on white)	
51F821	42-238	Amateur Equipment (Silver on black)	
51F822	42-240	Alphabets, Large (Gold on white)	
51F800	42-244	Alphabets & Num. Med. (Gold on white)	
51F801	42-246	Alphabets & Num. Med. (Silver on black)	
51F803	42-250	Numerals, large (Silver on black)	
51F804	42-252	Alphabets & Num., Small (Gold on white)	
51F805	42-254	Alphabets & Num., Small (Silver on black)	

DATAK INSTANT LETTERING

LETRASET instant lettering

● *NEW* FOR EXTRA FAST LABELING OF . . .

- ENGINEERING DRAWINGS
- CONTROL PANELS
- EQUIPMENT
- TERMINALS

Each box contains 24 sheets of easy to handle 3x5'' sheets with hundreds of preset words ranging from AC to ZOOMS. Includes sheets with complete panel markings. Excellent for Audio-Visual displays and labeling on any item.

Stk. No.	Type	Color	EACH
31F393	940	Black	**4.95**
31F394	942	White	

SPRAY PAINTS — CHEMICALS

MOISTURE-FUNGUS RESISTANT VARNISH
MEETS MIL SPEC. MIL-V-173-A

No. 277. Distributed only by Newark in U.S. Conforms to MIL-V-173-A. Always ready for instant use, simply press the trigger and get professional finishes at low cost. Does the job in minutes. It is inherently fluorescent and a treated chassis may be checked with an ultra - violet light keyed for 3500 A. U.'s Viscosity 0.85 poises. 16 oz. cans. Wt., 1½ lbs.

Stk. No.	Type	1-11	12-23	24-47	48-96
32F427	277	1.30	1.20	1.10	1.00

AEROSOL FIRE EXTINGUISHER

FIRE
EXTINGUISHER

No. 275. Plasti-Kote Fire Extinguisher. Low-cost fire protection! Stops electrical, grease, oil, wood, fabric, paper fires before they get out of hand. Throws quick-acting non-toxic chemical spray from 10 to 12 ft. Also eliminates moisture. Wt. 1½ lbs.

32F425. NET .. **1.26**
Lots of 12, Ea. 1.10

Plasti-Kote SPRAY PRODUCTS

- **Always ready for instant use! Simply press the trigger! It's easy as 1 - 2 - 3.**
- **Modern way to paint without mess or bother! Professional finishes at low, low cost!**

PAINT, ENAMELS, LACQUERS

Plasti-Kote
SPRAY
PAINT

The easy way to paint . . . no guns . . . no mixing . . . no mess or bother. Just press the trigger and you're spraying enamels and lacquers that dry in 3 or 4 hours. Paint does not run or sag. Protective caps match color of contents for instant identification. For all surfaces. 1 lb.

SPRAY HAMMER FINISHES

Stk. No.	Type	Description	NET
32F430	247	Flat Black	1.17
32F431	212	Silver Hammer	
32F432	213	Gray Hammer	
32F433	214	Green Hammer	
32F434	215	Blue Hammer	
32F435	216	Copper Hammer	

SPRAY LACQUER STAINS

32F436	280	Maple	1.17
32F437	281	Walnut	
32F438	282	Mahogany	

SELF SPRAY LACQUER

32F439	270	Clear	1.17
32F440	271	Black	
32F441	272	White	

HEAT RESISTANT SPRAY PAINT FOR MOTORS AND MACHINERY

Stock No.	Type	Description	NET
32F445	202	Universal Gray	1.17
32F446	203	Universal Black	
32F447	206	Red	
32F448	207	Aluminum	

No.	Type	Color	NET
32F401	250	Black Enamel	1.17
32F402	251	White Enamel	
32F403	252	Ivory Enamel	
32F404	253	Glade Green Enamel	
32F405	254	Chevron Blue Enamel	
32F406	255	Royal Blue Enamel	
32F407	256	Swift Red Enamel	
32F408	257	Yellow Enamel	
32F409	258	Shamrock Enamel	
32F410	259	Chrome Aluminum Enamel	
32F423	260	Bright Gold Enamel	
32F411	261	May Gray Enamel	
32F412	262	Chartreuse Enamel	
32F413	263	Rose Pink Enamel	
32F414	265	Baby Blue Enamel	
32F415	266	Machinery Gray Enamel	
32F416	267	Copper Enamel	
32F417	268	Gray Metal Primer	
32F418	269	Antique Flat Black	
32F424	264	Clear Varnish	
32F442	249	Green Zinc Chromate	
32F443	244	Flat White	
32F444	248	Yellow Zinc Chromate	

ANY ABOVE COLORS, ASSORTED, LOTS OF 12 AND UP. — EACH.......................... **1.05**

PLASTIC SPRAY

No. 274. Plasti-Kote Clear Acrylic Plastic Spray. Durable, flexible coat against dirt, water, weather., High dielectric strength. Seals connections, protects aerials. 16 oz.

32F400. NET **1.20**

RUST SOLVENT

No. 276. Quick-drying non-inflammable, non-oily, non-conductive spray rust-solvent and penetrant. Loosens "rust-frozen" parts easily. Shpg. wt. 16 oz.

32F428. NET **1.27**

KRYLON SPRAY

KRYLON
SPRAY
CLEANER
LUBRICANT
TUNERS
VOLUME CONTROLS
SWITCHES

For coating all metal, wood, etc. Sprays will seal any surface against oil, grease, moisture and chemicals. Clear type reduces corrosion on outdoor antennas and prevents corona in TV sets. Spray has dielectric constant of 3.2 to 3.7 at 1000 cycles. 16-oz. dispenser. Clear and colors meet Fed. Spec. TT-L-0050b. Many colors carry individual numbers to Fed. Std. No. 595.

Stock No.	Mfg. No.	Color	Fed. Std. No. 595	NET EACH
32F291	1302	Crystal-clear	....	1.27
Carton of 12				14.04
32F290	1401	Bright Silver	17178	1.17
32F292	1501	Gloss White	....	
32F150	1502	Flat White	37875	
32F151	1503	Antique Ivory	17778	
32F293	1601	Glossy Black	17038	
32F282	1602	Flat Black	37038	
32F283	1603	Machine Grey	....	
32F284	1604	Light Grey	16099	
32F276	1605	Dove Grey	....	
32F285	1701	Bright Gold	....	
32F286	1801	Chrome Yellow	....	
32F152	1802	Pastel Yellow	....	
32F287	1901	Regal Blue	....	
32F294	1902	Baby Blue	....	
32F176	1903	Champion Blue	....	
32F288	2001	Hunter Green	14062	
32F153	2002	Surf Green	....	
32F289	2101	Cherry Red	11136	
32F295	2102	Baby Pink	....	
32F296	2201	Bright Copper	....	
32F177	2202	Brass	....	
32F277	2301	O. D. Khaki	14064	
32F278	2401	Int'l Orange	....	
32F178	2501	Leather Brown	....	
Carton of 12				12.89

KRYLON SPRAYS

GLOWING FLUORESCENT SPRAY PAINT

Dazzling colors that are four times brighter than a white surface. For use in daylight or artificial light. Gives neon effect under black light. For maximum brightness precoat other than white surface with Krylon Glossy or flat white (not on plastic). * are made to Spec. MIL-P-21600. 16 oz spray cans. Shipping weight, 1½ lbs.

No.	Type	Description	NET
32F165	3101	Red Orange-633*	1.82
32F166	3102	Yellow Orange-634*	
32F167	3103	Sunset-Gold	
32F168	3104	Lemon-Yellow	
32F169	3105	Cerise	
32F170	3106	Green	
32F179	3107	Blue	

Carton of 12 cans 20.09

KRYLON METAL PRIMER

The quick, easy to prepare surfaces for painting. The green and yellow are rust inhibitive zinc chromate primers specially for metal and are manufactured in accordance with Spec. MIL-P-6889-A Type 1. Grey is an all purpose primer for wood, metal, plastic, etc. In 16 oz. spray cans. Shpg. wt., 1½ lbs.

32F297. No. 1320 Green. **NET** 1.27
32F161. No. 1319 Yellow. **NET** 1.27
Carton of 12 cans. **NET** 14.04
32F160. No. 1318 Grey. **NET** 1.17
Carton of 12 cans. **NET** 12.89

KRYLON DULLING SPRAY

Type 1310. Eliminates glare from reflecting surfaces. Spray dries in seconds. It is harmless to high polish—removes easily.

32F273. 16-oz. can. **NET** **1.27**
Carton of 12 cans. **NET** 14.04

HIGH HEAT ALUMINIUM SPRAY

Type 1402. Special formula Krylon aluminum spray for high heat problems. Withstands 500°F for long periods and 1000°F intermittently. Fast drying. 16 oz. spray can. Shpg. wt., 1½ lbs.

32F180. EACH **1.63**
Carton of 12 .... 17.93

ALL PURPOSE SILICON SPRAY

Type 1325. Silicon spray for electrical and mechanical uses. Dielectric strength 350V. mil. Excellent lubricant for many electronic devices. 16 oz. spray can. Shpg. wt., 1½ lbs.

32F181. EACH **1.27**
Carton of 12 .... 14.04

KRYLON CONTACT CLEANER

Type 1326, 16 oz. Non-flammable, greaseless contact cleaner in spray can. Cleans volume controls, switches, and tuners. Removes dirt and gummy deposits from electrical contacts and provides a non-drying film which lubricates the contact surfaces. Long lasting protection from corrosion and oxidation. Comes with 5" plastic hose.

32F154. Each .... 1.27 **Lots of 12** 14.04
Type 1326A, 6 oz.
32F155. Each .... .64 **Lots of 12** 7.06

KRYLON RUST MAGIC

Type 1317. A quick drying anti-rust metal primer. Space age Phenolic Resin G1-358 gives Krylon Rust Magic Metal Primer piercing power through heavy rust. Seals out moisture, air, and neutralizes porous rust. Dry to the touch in 20 minutes, apply finish coat in 2 hours. Compatible with Krylon Spray Paints. 16 oz. spray can. Shpg. wt., 1½ lbs.

32F172. NET **1.17**
Carton of 12 cans. **NET** 12.89

**Save TIME! Save MONEY!
Select from NEWARK'S
complete spray
paint supply!**

TOOLS—CHEMICALS

CLEAN, BRUSHLESS SPRA-KOAT PRODUCTS

K-27 PRINT-KOTE
INSULATES & PROTECTS
SPRA-KOAT
Ruf-Koat WRINKLE VARNISH BLACK
NO. 60-12
SPRA-KOAT
HAMMER FINISH BLUE
NO. 84-12
SPRA-KOAT
Telephone BLACK SATIN
NO. 62-12
SPRA-KOAT
8667 Zero-Mist CIRCUIT COOLER

K-27 PRINT-KOTE

TV silicone resin used by many manufacturers on all printed circuit sets. A wonder-performing chemical that insulates, protects and prevents shorts . . . insures a truly satisfactory job. Air-dries . . . requires no baking. 6 oz. can.
32F357. 14-6. **NET** **2.37**

RUF KOTE SPRA-KOAT

The only finish that will air dry and give a professional wrinkle job without baking. Employed by many manufacturers on PA equipment, chassis, panels, and racks. Easy, simple to use. 16 oz. can.
32F325. 60-12. Black. **NET** **2.20**
32F326. 60-13. Gray. **NET** 2.20

HAMMER-KOAT

Achieves a professional air-drying hammer finish that's perfectly adapted for use on panels, racks, instruments, chassis, etc. Extremely easy to use . . . dries in a matter of minutes. 16 oz. can.
32F327. 83-12. Brown. **NET** **2.25**
32F328. 84-12. Blue. **NET** 2.25
32F329. 85-12. Silver. **NET** 2.25

TELEPHONE SPRA-KOAT

A high grade satin finish enamel that covers evenly, dries quickly. Available in a rich ebony black for telephone devices panels, or gray that is excellent for panel work, instrument finishes, etc. Easy to use . . . just spray on. 12 oz can.
32F330. 62-12. Black. **NET** **2.25**
32F331. 62-13. Gray. **NET** 2.25

13-2

12-2

9131

PRINT-KOTE SOLVENT

No. 13-2. Solvent for No. 14-2. Print-Kote Silicone Resin. Dissolves and removes silicone resin from printed circuit. Shipping wt., 2 oz.
32F360. NET **36c**

PRINT-KOTE SOLDERING FLUX

No. 12-2. Especially made for printed circuits. Non-corrosive liquid flux for easy soldering and repair jobs. Paves the way for quality work in less time. 2 oz.
32F362. NET **49c**

PRINT-KOTE SOLDER

No. 9131. For printed circuits. Special Non-corrosive flux and low-melting solder combined with pure silver. Weight, 2 oz. 11 ft. coil.
32F361. NET **51c**

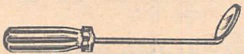
ELECTRONIC ASSORTMENT KIT

Type 9400. Oil Assortment Kit contains all oils commonly used in electronic work. Included is recorder, penetrating, phono, radio-TV, and dripless oil. The other tube is liquid graphite. Shpg. wt., 1 lb.
32F364. NET **2.06**

ZERO-MIST SPRA KOAT

Revolutionary idea from GC! Now, locate intermittents without frustrating hours of checking! Zero-Mist spots instantly any component defective due to temperature change. Just spray on the questionable condenser, resistor, transistor, etc. Zero-Mist cools it immediately, isolating the trouble. 16 oz. can.
34F610. 8667. **NET** **2.37**

INSPECTION MIRROR



Type 5090. Indispensable for inspecting coils, resistors, connections, etc., in tightly wired radio chassis. Dia., 1". Shpg. wt., 5 oz.
34F557. NET **41c**

G-C MINIATURE TUBE PULLER

"Amo" tube puller for miniature tubes. Easy to use. Tube is released by pressing button. 4 oz.
34F558. 7-pin. **5093. NET**
34F556. 9-pin. **8106. EACH** **1.27**

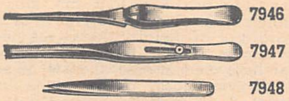
G-C MINIATURE PIN STRAIGHTENER

Steel die for straightening pins on miniature tubes. Carry in tool box or fasten to bench. 6 oz.
34F555. 7-pin. **5191. NET**
34F554. 9-pin. **8105. EACH** **73c**

G-C TUBE EXTRACTOR

Type 5092. Zinc plated iridited spring steel. Molded neoprene cushion over claws. Removes all makes and sizes of tubes and will not damage tube socket or shield. Permits quick manipulation from any angle. 6 oz.
34F752. NET **96c**

G-C SERVICE TWEEZERS



For starting screws and nuts in difficult places, holding wires and small parts together when soldering, installing dial cord, etc. Nickel-plated steel. Wt., 2 oz.
Type 7946. Self-closing, with crossover action, 6½" long, serrated, blunt points.
34F521.
NET **76c**
Type 7947. Heavy-duty, with slide-lock feature. 6½" long, serrated, blunt points.
34F522. NET **88c**
Type 7948. Precision tweezer with narrow, pointed ends. Over-all length, 4½".
34F523. NET **51c**
Tweezer Kit. In leatherette case. One each of above tweezers. 8 oz.
34F524. Type 7950. **NET** **2.23**

GENERAL CEMENT "NEO-LITE"

NE-O-LITE ELECTRICAL TESTER

Designed for easy use. Neon glow-type tester for voltages ranging from 90 volts AC-DC to 550 volts AC/DC. Neon bulb in insulated holder. 5" insulated leads with phone tips. Wt. 3 oz.
34F680. Type 5100. **NET** **44c**

NEWARK—

Headquarters for all

Special purpose equipment

In Electronics!

PRINTED CIRCUIT AIDS

PRINTED CIRCUIT REPAIR KIT

PRINTED CIRCUIT KIT

Type 680. All the materials you need for repairing any printed circuit in radio or TV sets. Contains: Print-Kote, Silicone Resin, Print-Kote Solvent, ½ oz. Pure Silver Print, Scraper, Special Print-Kote Solder, Solder Probe Tool, Stainless Brush and Printed Circuit Manual. Shipping weight, 2 lbs.
32F358. NET **5.73**

SILVER PRINT

No. 21-1. "Pure silver" compound used by manufacturers in printed circuit design. Tops for repair work or touching up a circuit. Wt., ½ Troy ounce.
32F355. NET **2.42**

PRINT-KOTE SILICONE RESIN

No. 14-2. Silicone resin used by manufacturers to protect their printed circuits. Fast drying. With brush. 2 oz. bottle.
32F359. NET **1.27**

DIAL CORD

GC DIAL CABLES and CORDS

Dial cord in popular sizes. The following service spools cover 90% of all replacement needs. Nylon cord with a fiberglass core. Treated to prevent stretching and slipping. Wt., 4 oz.
Type 75-A. Extra thin cord. .025" dia., 30 lbs. brk. stgh.
25F800. 10-ft. hank. **NET** .... .36
25F801. 25-ft. spool. **NET** .... .73
25F802. 100-ft. spool. **NET** 2.32
Type 75. Standard cord, .028" diameter. 30 lbs. breaking strength.
25F803. 10-ft. hank. **NET** .... .36
25F804. 25-ft. spool. **NET** .... .73
25F805. 100-ft. spool. **NET** 2.32
Type 74. Medium cord, .040" dameter. 35 lbs. breaking strength.
25F806. 10-ft. hank. **NET** .... .36
25F807. 25-ft. spool. **NET** .... .73
25F808. 100-ft. spool. **NET** 2.32

TRANSISTOR Z5 SILICONE COMPOUND

Type 8101 maintains efficient transfer of heat from transistor to chassis.
32F365. 1 oz. tube
NET **2.06**

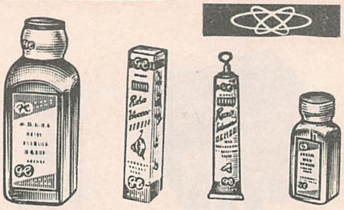
MASTER DELUXE CABINET REPAIR KIT

Type 900. All essentials to fix wood and plastic cabinets, knobs, refrigerators, appliances, etc.: Spirit stains, varnishes, enamels. Make quick repair without spoiling adjoining finish. 10 shades of shellac sticks, spatula, alcohol lamp and alcohol, rubbing fluid, and felt. French varnish and emulsion, dark varnish, mahogany, and dark walnut stain, walnut, ivory, and white refrigerator enamel, scratch stick, cloth, steel wool, sandpaper, polish, brush, blue. In metal box. 5 lb.
32F353. NET **8.92**

RADIO CHEMICALS

GC
ELECTRONICS

POPULAR SELECTION OF CHEMICALS
SOLVENTS—CEMENTS—CLEANERS



SOLVENTS

Radio Service Cement Solvent. For loosening cement on speaker cones, frames, etc. Will cut any radio speaker cement.

32F231. 2-oz. bottle. 31-2. **NET** .... .44
32F232. 4-oz. bottle. 31-4. **NET** .... .71
32F233. 8-oz. bottle. 31-8. **NET** .... .80

Cement Thinner. Will thin radio and plastic cement without changing characteristics. 8-oz. bottle.

32F236. 28-8. **NET** **82c**
32F336. 2-oz. bottle. 28-2. **NET** 44c

Q-Dope Thinner. Solvent for polystyrene Q-Dope and other polystyrene coil dopes, cements, rods, sheets, etc.

32F240. 2-oz. bottle. 41-2. **NET** **44c**
32F241. 4-oz. bottle. 41-4. **NET** .... .66

"Strip-Ex". Strips enamel from magnet wire, enabling it be soldered immediately.

32F255. 2-oz. bottle. 26-2. **NET** **66c**

POLISH

Dark Scratch Removing Polish. For walnut, mahogany, and other dark woods. Contains dark stains, etc., to eliminate scratches.

32F248. 8-oz. bottle. 92-8. **NET** **59c**

General Skratch Stik. Two colors: Walnut and Mahogany. Removes scratches on Walnut, Mahogany, Oak . . . works on all shades and colors. Easy to use — simply run stik over scratch. Pocket size case.

32F249. 909W. **NET** **47c**

DOPE AND VARNISHES

High Voltage and Corona Dope. Prevents corona shorts on high voltage circuits in TV sets. High insulating qualities.

32F206. 2-oz. bottle. 47-2. **NET** **71c**
32F207. 8-oz. bottle. 47-8. NET 1.94

Q-Dope. Pure polystyrene dissolved in Q-Dope Thinner. Will not change RF circuit values. Fully moisture-repellent. 2-oz. bottle.

32F208. 37-2. **NET** **47c**
32F209. 4-oz. bottle. 37-4. **NET** 71c

Insulating and Dipping Varnish. Produces a film that is water-proof, oil-proof and non-corrosive. Recommended for field coils, noisy transformers, etc. 2-oz. bottle.

32F211. 56-2. **NET** **52c**
32F213. 8-oz. bottle. 56-8. **NET** 1.15

RED INSULATING VARNISH

Most common of all protective insulating coatings, used on all solder connections, high voltage points. etc. 2-oz. bottle.

32F332 Type 90-2. **NET** **56c**

LUBRICANTS

Electronic Contact Cleaner. For switch or relay contacts, volume controls, etc. with brush.

32F250. 2-oz. bottle. 210-2. **NET** .... .52
32F251. 4-oz. bottle. 210-4. **NET** .... .66
32F252. 8-oz. bottle. 210-8. **NET** 1.11

Lube-Rex. For attenuators, push-button switches, contacts, etc. Moisture-repellent and rust-preventing.

32F243. 2-oz. tube. 1206. **NET** **44c**

Phono-Motor and Gear Lubricant. Specially made lubricant that clings to the surface of the parts. Insures long life. 2-oz tube. 1223.

32F244. **NET** **52c**

CEMENT

NE-O-Prene Cement. Fast drying cement that sticks neoprene rubber to neoprene and to other materials (metal, paper, wood, etc.). Complete with attached brush applicator.

32F376. 2 oz. bottle. 52-2. **NET** **51c**

Type 345. Cement Sampler Lab Kit. 14 bottles contain cement and adhesive for every application. Cements of all types are included with instructions. Tops for lab's and engineer's use and handy for the shop or factory. 2-oz. bottles.

32F257. **NET** 5.85

Pli-O-Bond Cement. Cold setting, thermoplastic liquid. Dries quickly, waterproof. For steel, glass, iron.

32F256. 2-oz. bottle. 43-2. **NET** .... .52

Radio Service Cement. Mends speaker cones, tube bases, grid caps, etc. Can also be used for bakelite cement. Vibration-proof, water-proof and fast drying.

32F214. 2-oz. bottle. 30-2. **NET** .... .47
32F216. 8-oz. bottle. 30-8. **NET** 1.24

Radio and TV Cement. For television work; seals nuts, bolts, etc., on antennas, rotators, etc. Also used for repair of parts and cabinets. Waterproof.

32F215. 2-oz. bottle. 34-2. **NET** **47c**

Plastic Cement. Excellent for cementing broken plastic cabinets, dial and glass crystal assemblies, knots in dial cord, etc. Very fast drying, water-proof.

32F217. 2-oz. bottle. 32-2A. **NET** **47c**

Bakelite Cement. Made for cementing bakelite to bakelite, and bakelite to other materials. Also for repairing broken molded pieces, knobs, panels, etc.

32F220. 2-oz. bottle. 32-2. **NET** **69c**

Vinylite Cement. For metals, plastics, paper, leather, etc. Can also be used as a thermoplastic cement for non-porous materials. Water-proof, fast-drying.

32F221. 2-oz. bottle. 58-2. **NET** **47c**

Household and Model Cement. Fast-drying cement, suitable for many uses. Will cement wood, paper, plastics, metal, ceramics, etc. Fast-drying, water-proof.

32F222. 2-oz. bottle. 45-2. **NET** **47c**

Wood and Cabinet Glue. Used in repair of furniture, chairs, radio cabinets, etc. Can also be used for gluing on radio grille cloth, labels, to wood, etc.

32F224. 2-oz. bottle. 39-2. **NET** **47c**

Rubber to Metal Cement. For cementing rubber dial drives to metal shafts, rubber mounting to chassis, or for any rubber material to metal, wood, etc. Waterproof.

32F225. 2-oz. bottle. 35-2. **NET** **52c**

Fabric Cement. For use in cementing grille cloth, leatherette, and fabric covering to metal, wood, etc. Will not penetrate, stain or shrink the materials.

32F226. 2-oz. bottle. 22-2. **NET** **52c**

Electrical and Resistor Cement. Heat-proof cement that hardens like porcelain. Same as used on resistors, flct irons, electrical appliances, etc.

32F227. 2-oz. bottle. 27-2. **NET** **47c**

Acrylic Cement. Specially prepared for cementing Lucite, plexiglass and other acrylic materials. Fast-drying; welds the materials together.

32F228. 2-oz. bottle. 40-2. **NET** **52c**

LIQUID NON-SLIP

Penetrating dressing. Shrinks fibres; prolongs life, prevents slipping of dial cord, etc.

32F229. ½-oz. bottle. 1211. **NET** **32c**
32F230. 2-oz. bottle. 1215. **NET** .... .47

CLEANERS

Carbon - tetrachloride. For mechanical and electrical parts. Removes oils, grease, etc. Will not burn.

32F342. 2 oz. bottle. 211-2. **NET** .... .37
32F260. 8 oz. bottle. **NET** .... .78
32F261. 16 oz. bottle. **NET** 1.24

G-C Kleer Lens. Specially prepared for cleaning TV lens and tubes. Eliminates finger marks and spots, etc. 6 oz. "Spray Squeeze" bottle.

32F381. 9081. **NET** .... **.74**

"G-C 60". Glass Treatment Compound. Makes all glass and plastics cleaner and brighter, degreases, removes static, waterproofs, and keeps surfaces cleaner longer. Easy to use, just spray on and wipe off. Comes with handy spray applicator for easier application.

32F201. 6 oz. bottle. 175-6. .... **1.05**

Injector Needle. Made on the hypodermic principle to inject cleaners and oils into shafts, controls and tight places. Applicator supplied. 2-oz. bottle.

32F202. 8383. **NET** **47c**

Carbon-X Cleaner. Touches up noisy spots on carbon controls. Electrical conductor.

32F203. 2-oz. bottle. 1205. **NET** **78c**

Chlorothene Cleaner. A solvent for all purpose cleaning of any electronic component, switch, chassis, etc. Dissolves grease, dirt, oils, tar and waxes. Safe indoors . . . no sickening fumes. Completely non toxic. Similar to carbon tetrachloride in cleaning action.

32F377. 4-oz. bottle. 213-4. **NET** .... **.56**
32F378. 16-oz. bottle. 213-16. **NET** 1.29

Spra-Clean. An electrical cleaner and lubricant. Eliminates noise due to dust, dirt, and corrosion on electrical contacts. Lubricates in one fast operation.

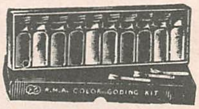
32F343. 6-oz. can. 8666. **NET** .... **.97**

MAG-NETIK RECORDING HEAD CLEANER

Cleans gently, thoroughly . . . dissolves oxide scum accumulation on tape and wire recorders. Easy and safe to use. Does the job fully in minutes.

32F258. 53-1. 1-oz. bottle. **NET** **56c**
32F259. 53-2. 2-oz. bottle. **NET** .... .95

COLORING KITS



Color - Code Kit
Complete kit of al standard RTMA colors: Black brown, red, orange, yellow, green, blue, purple, gray and white. Includes brushes and RTMA coloring chart. Shpg. wt., 1 lb.

32F350. 677. **NET** **1.44**

Dial Lite Color Kit. Instant drying paints for multi-colored dials, signals, lighting, etc. Red, blue, green, amber, purple and solvent. Shpg. wt., 1 lb.

32F351. 66-6. **NET** 1.40

LIQUID TAPE

A brush-on high voltage insulation for the hard to get at places where this type of insulation is needed. Just brush on and let dry. Also used as anti-rust coating, tool insulation, weatherproofing, etc. Brush applicator attached. 2 oz. bottle.

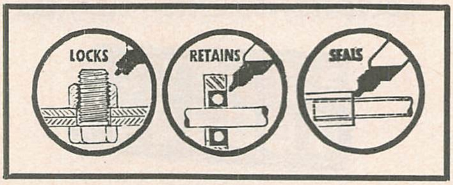
32F380. **No. 176-2. NET** **96c**

SEALANTS AND REFINISHER KITS

LOCTITE® SEALANT

Test Kit

Locquic® Primer



Sealant

MEETS MILITARY SPECIFICATION

Mil-T-212000C, Mil-S-22473, Mil-E-5400E, Mil-E-16400D, Mil-P-11268D.

- PARTS WILL NOT VIBRATE LOOSE
- DISASSEMBLE AND ASSEMBLE WITH STANDARD TOOL
- ADDS RELIABILITY TO ELECTRONIC ASSEMBLIES
- MAKES ANY SCREW A LOCKSCREW AND ANY NUT A LOCKNUT

Ready to use thin liquid plastic screw retaining compound, designed for thread-locking with standard nut and bolts that adds reliability to electronic assemblies. Hardens between closely fitting metal parts. Forms tough heat and oil resistant bond that secures, retains, and seals. Self hardening property which makes it unique is based on 2 factors: (1) contact with air keeps it liquid, and (2) metal surfaces hasten hardening. Provides complete resistance to loosening under shock or vibration because it fills and locks engaging threads, providing both break-loose and prevailing torque, yet can be removed with a screw driver. Has several times the holding power of locknuts or lockscrews. Comes in different strengths—ranging from a light drag suitable for adjustment screws to a locking force exceeding the torsional strength of the screw. Provides greater uniformity than mechanical staking. Easy to apply, being liquid, it fits all sizes. 10cc bottle has applicator nozzle and is best suited for treating assembled fasteners individually. Weighs ⅓ oz. 250cc bottle is for application by tumbling, weighs 8 oz. 50cc bottle may be used for either method; applicator nozzle included.

PRODUCTION STARTER KIT

For design and testing work. Assist designers in determining proper grade. Contains 10 grades of sealant and one 4 oz. jar of cleaner with dip basket and swabs. Shpg. wt., 2 lbs.

57F024. NET **16.95**

MAINTENANCE KIT

57F026. Type 1-50. Contains one 50cc plastic bottle of Loctite Sealant general purpose grade B, applicator nozzle and new aerosol spray can of Locquic primer for use on oily or plated parts. Directions for use on box. Parts will not loosen from vibration but are removed by ordinary tools.

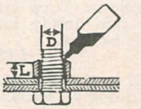
57F026. Type 1-50. NET **9.45**

LOCQUIC® PRIMER

Priming rinse which speeds hardening of sealant and effectively cleans oily parts. Required by non-metallic and some zinc and cadmium plated parts to activate surfaces for sealant. 6 oz. "ready to use" aerosol can.

Stk. No.	Descrip.	1-9	10-99	100-up
57F025	Primer.	1.95	1.75	1.50

GUIDE FOR SELECTION OF PROPER GRADE



Measure engaged length of screw (L in diagram), and diameter of screw (D in Diagram). Divide L by D to get engagement ratio. Select proper grade letter from table below. Use A on snug fits, D or V grades on loose fits. Grade D has same strength as A but higher viscosity. Suffix V indicates higher viscosity of grade.

APPLICATION	ENGAGEMENT RATIO				
	0.5	1.0	1.5	2.5	5.0
Nuts on steel screws	A or D	A or D	C	....	....
Steel screws in tapped holes	A or D	A or D	C	C	E
Steel studs	....	A or D	A or D	C	C
Steel adjustment screws	A or D	C	E	H	H
Adjustment nuts on steel screws	A or D	C	E	....	....
Nuts on aluminum or brass screws	A or D	C	C	....	....
Aluminum or brass screws	A or D	C	C	E	H
Aluminum or brass adjustment screws	C	E	E	H	....
Adjustment nuts on aluminum or brass screws	C	E	E	....	....

2 CC

Stock No.	Grade	Color Code	Rel. Torq.	Visc. (cent.)	Strength psi	EACH
57F000	C (4-1)	Blue	4	10-15	300-400	.79

10 CC

Stock No.	Grade	Color Code	Rel. Torq.	Visc. (cent.)	Strength psi	1-4	5-9	10-24	25-49	50-99	100-249
57F001	C (4-1)	Blue	4	10-15	300-400	2.10	1.70	1.50	1.35	1.25	1.15
57F002	AA (15-1)	Green	15	10-15	1150-1500						
57F003	A (10-1)	Red	10	10-15	750-1000						
57F004	D (10-4)	Orange	10	40-50	750-1000						
57F005	AV (10-10)	Red	10	100-150	750-1000						
57F006	B (7-2)	Yellow	7	20-30	525-700						
57F007	CV (4-10)	Blue	4	100-150	300-400						
57F008	E (2-1)	Purple	2	10-15	150-200						
57F009	EV (2-10)	Purple	2	100-150	150-200						
57F010	H (1-1)	Brown	1	10-15	75-100						
57F011	HV (1-10)	Brown	1	100-150	75-100						

50 CC

Stock No.	Grade	Color Code	Rel. Torq.	Visc. (cent.)	Strength psi	1-4	5-9	10-19	20-up
57F012	C (4-1)	Blue	4	10-15	300-400	7.50	6.10	5.60	5.00
57F014	A (10-1)	Red	10	10-15	750-1000				
57F015	D (10-4)	Orange	10	40-50	750-1000				
57F019	E (2-1)	Purple	2	10-15	150-200				
57F021	H (1-4)	Brown	1	10-15	75-100				

250 CC

Stock No.	Grade	Color Code	Rel. Torq.	Visc. (cent.)	Strength psi	1	2-3	4
57F023	C (4-1)	Blue	4	10-15	300-400	28.50	27.00	24.20

CHEM-CHROME FINISHER SET

CHEM-CHROME
Chem-Chrome
REPLACE RUST SPOTS WITH BRIGHT CHROME

No. 10104. Chem-Chrome Kit. Refinishes rusted, peeled, worn-off or pitted chrome. High-luster, heat-proof, weather-proof finish has same reflective qualities as chrome electroplating. Eliminates necessity for removal of chrome trim or replating. Can be applied to any metal, wood, glass, rubber, or plastic. Adheres perfectly, will not peel. Do-it-yourself quickly and easily—kit contains all necessary materials to do a complete chrome plating job. Replace ugly rust spots with bright chrome. One kit contains enough to cover approximately 2300 square inches.

32F149. NET **3.39**

**SAVE WORK! Make Newark your Complete 1-Point Stock Source!
SAVE TIME! At Newark — fast, efficient service always!
SAVE MONEY! Quantity Prices Competitive with Manufacturer!**

INDUSTRIAL ELECTRONIC PUBLICATIONS

TV Tube Location & Trouble Guide (RCA). No. 194. By Rider Lab. Staff. Tube locations for all 1947-1956 RCA TV receivers. Lists tube complement, key voltages, and common troubles, and points out guilty tubes. Complete chassis and model index. Soft cover, 56 pp., 5½ x8½", illus.
52F263. Postpaid in U.S.A. **1.22**

Repairing Television Receivers. No. 191. By Cyrus Glickstein. Troubleshooting and repair techniques. Also use of all test equipment. 212 pp., 5½x8½". illus.
52F266. Postpaid in U.S.A. **4.31**

How to Troubleshoot TV Sync. Circuits. No. 249. By Ira Remer. Covers the many variations in monochrome and color television sync circuits and the possible troubles that might occur in them. Explains the fundamentals of sync circuits, discussing such items as sync takeoff, sync clipping and limiting, noise cancellation, and time constants. The discussion of the output circuits of the sync section includes integration and differentiation of the vertical and horizontal circuit signals. A chapter on sync problems analyzes the possible sync failures with relationship to components which might bring them about. Final chapt. deals with sync in color TV. Size: 5½"x8½". 128 pp.
53F291. Postpaid in USA **2.84**

How to Locate and Eliminate Radio and TV Interference. No. 158. By Fred D. Rowe. Much can be done by the Radio and TV repairman about interference when he knows what causes it. Book tells Cause and Cure for most interference. 128 pages. 5½"x8½".
52F461. Postpaid in U.S.A. **2.84**

How to Troubleshoot a TV Receiver. 2nd Edition. No. 152. By J. Richard Johnson. Tells how to make the most out of TV service data, what tools to buy, tube stock to carry and gives much valuable information about how to go about trouble shooting. 160 pp. 5½"x8½".
52F454. Postpaid in U.S.A. **2.84**

Picture Book of TV Troubles. No. 168. By Rider Laboratory Staff. New "TV Case History" series designed to help the technician diagnose TV receiver troubles by means of picture waveform observation. Over 215 illustrations of "faulty" picture tube patterns and normal and abnormal waveforms. 5½x8½". Postpaid in U.S.A.

52F488. Vol. 1. 80 pages, Horizontal AFC-Oscillator Circuits **1.32**

52F436. 168-3 Vol. 3. 96 pages. Video IF and Video Amplifier Circuits 1.76

52F437. 168-4 Vol. 4. 96 pages. Automatic Gain Control (AGC) Circuits 2.20

52F448. 168-5 Vol. 5. No. 168-5. 108 pp. Horizontal Output & H-V Circuits 2.35

52F256. 168-6 Vol. 6. No. 168-6. 120 pp. Horizontal & Vertical Sync Circuits 2.45

52F260. 168-7 Vol. 7 No. 168-7. 64 pp. Sound Circuits & L-V Power Supplies 1.47

New Advanced TV Servicing Techniques No. 161 by Radio Electronic TV Manufacturer Assn. A completely illustrated, 176 page, tried and tested, "How-to-do-it-book" on TV servicing, written by experts in the field. This is a clear, concise step-by-step method for servicing every section of your TV receiver with every kind of equipment . . . by resistance and voltage measurements, by scope. Explains component problems, use of test equipment, etc. Correlates picture tube pattern with waveforms and troubles. 8½x11".
52F482. Postpaid in U.S.A. **3.53**

Laboratory Workbook for Above. No. 161-2. Gives detailed, illustrated instructions for doing laboratory work on the principles outlined in the above book. With helpful result tables. 32 pp. Size: 6"x11".
52F483. Postpaid in U.S.A. **93c**

TV Repair Questions and Answers. Vol. 2. No. 173-2. Covering video circuits. By Sidney Platt. An authoritative reference source for students taking TV servicing. 135 practical "how-to" questions and answers. Size: 5½"x8½".
52F433. Postpaid in U.S.A. **2.06**

TV Repair Questions and Answers. Vol. 3. No. 173-3. By Sidney Platt. As above, but covering Sync and Sweep Circuits. Comprehensive illustrations and reference source organization. 128 pp. Size: 5½"x8½".
52F445. Postpaid in U.S.A. **2.06**

TV Repair Questions and Answers. Vol. 4. No. 173-4. By Sidney Platt. As above but covering Deflection and HV circuits. 128 pp. Size: 5½"x8½".
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Fundamentals Of Radio Telemetry. No. 225. By M. Tepper. Introduces field of radio telemetry, explains its purpose, and explores its techniques. Special sections devoted to missile and satellite telemetry hardware, and to data recording as well as processing. Numerous diagrams and photographs. Soft cover, 6x9" illustrations. 128 pp.
53F256. Postpaid in U.S.A. **2.89**

Sound. No. 200-5. This book by Alexander Efron, E.E., Ph.D., covers such topics as sources of sound energy, the ear, perception of pitch, loudness, quality, standing waves, interference, and physics of sound. Soft cover. 80 pp. 5½x8½". Illus.
52F287. Postpaid in U.S.A. **1.52**

Pictorial Microwave Dictionary. No. 188. Defines, explains, and illustrates present day microwave terminology. Gives derivations too. Organized for easy use as a reference for engineers, laboratory technicians, engineering students, and all others who have an interest in microwave techniques. Soft cover. 116 pp. Size: 5½"x8½".
52F261. Postpaid in U.S.A. **2.89**

Industrial Control Circuits. No. 202. By S. Platt. A book written for the technician, student, or engineer, or anyone who wants a complete knowledge of control circuits. Book includes industrial applications of circuits, relay control and timing circuits, etc. 200 pp. Size: 5½"x 8½".
52F289. Postpaid in USA. **3.82**

Basic Pulses. No. 216. By I. Gottlieb. Explains what pulses are, how they are measured, and their applications. The use of pulses in high speed electronic equipment makes this book increasingly helpful to the engineer and technician to upgrade his position in the electronic field. Contains questions and problems. Soft cover, 184 pp. Illus. Size: 6x9".
53F263. Postpaid in U.S.A. **3.43**

Metallic Rectifiers & Crystal Diodes. No. 213. By Theodore Conti. Principles and practices in a comprehensive manner. While the emphasis is not on the design problems, details given enable the reader to gain a great insight into the "where" and "how" in a broad variety of applications. Well illus. (5½x 8½"), Soft cover. 164 pp.
53F251. Postpaid in U.S.A. **3.43**

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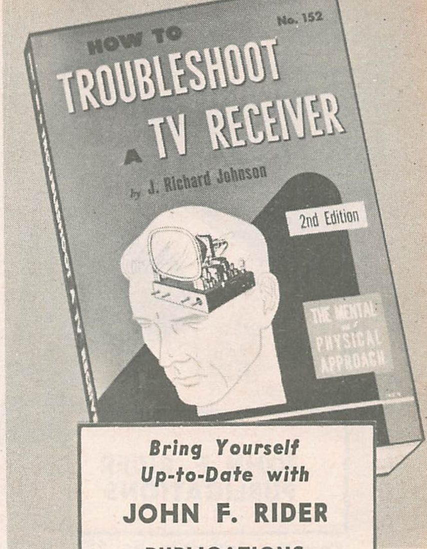
52F293. Postpaid in U.S.A. **2.06**

Filters and Attenuators. No. 166-36. By A. Schure. Deals with the major factors and new techniques in filters and attenuators. 87 pages. Size: 5½x8½".
53F325. Postpaid in U.S.A. **2.20**



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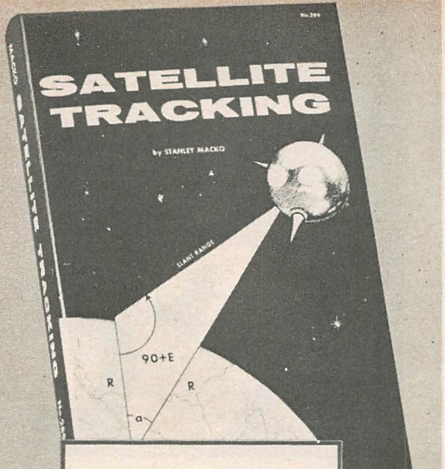

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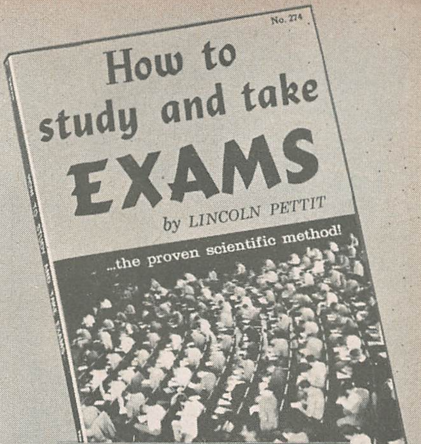

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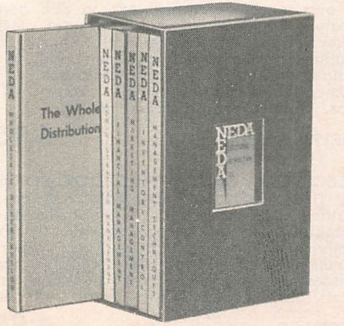

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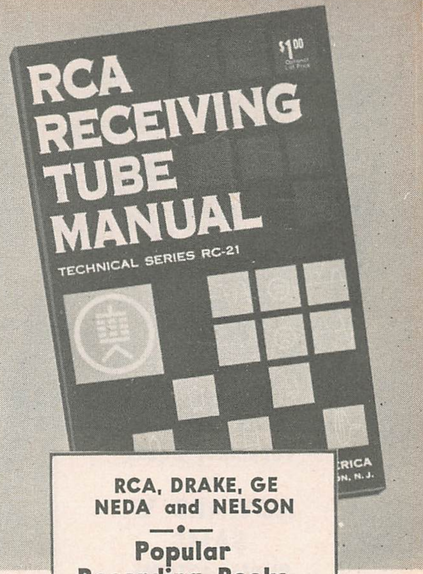

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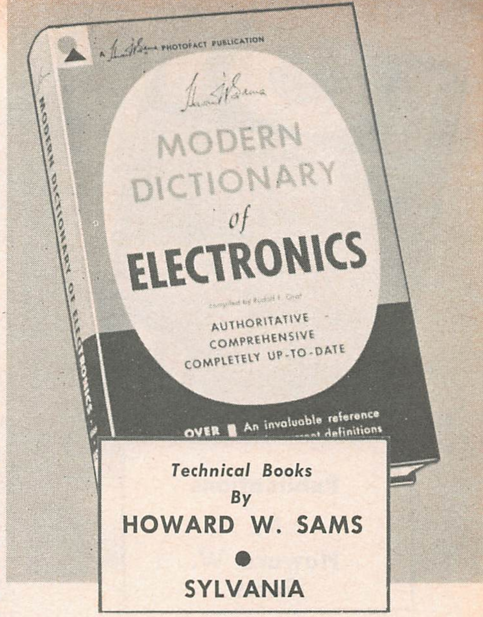
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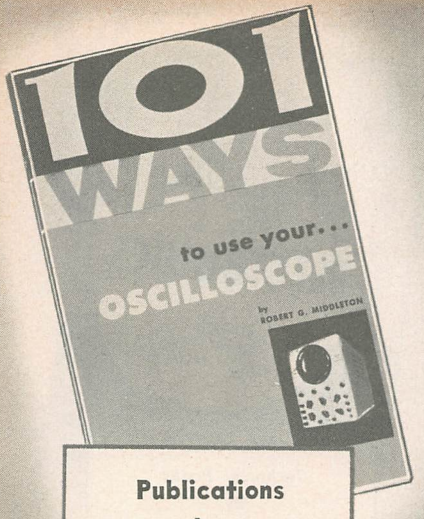

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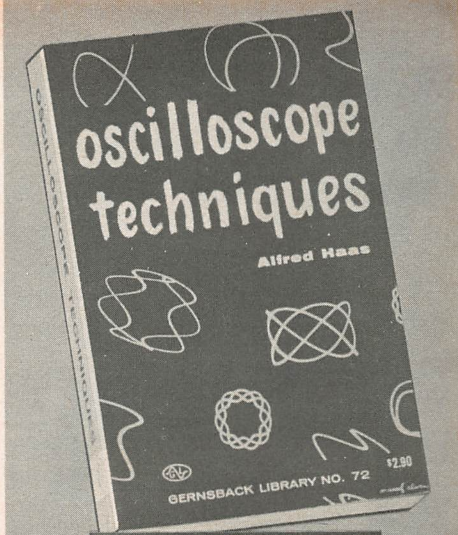

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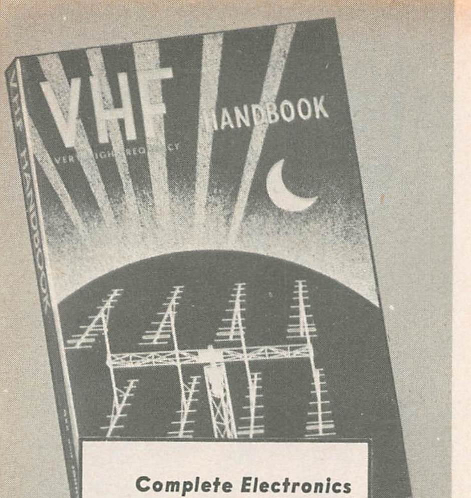

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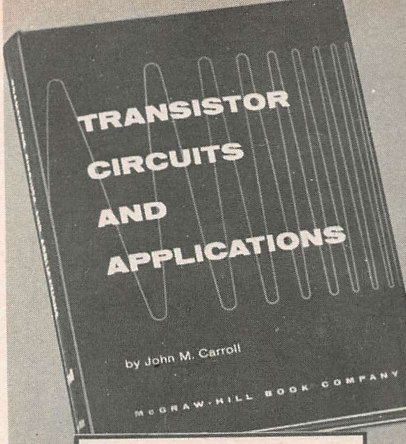

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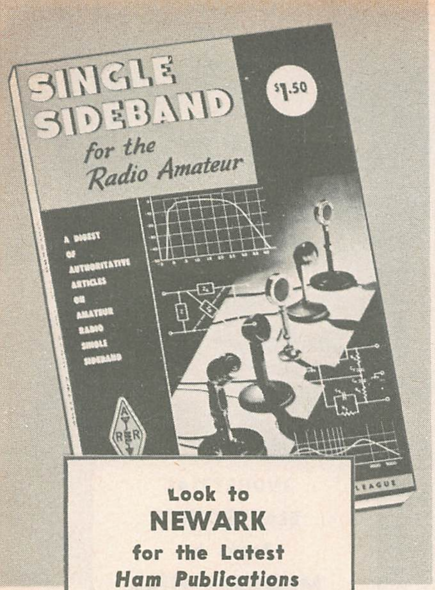
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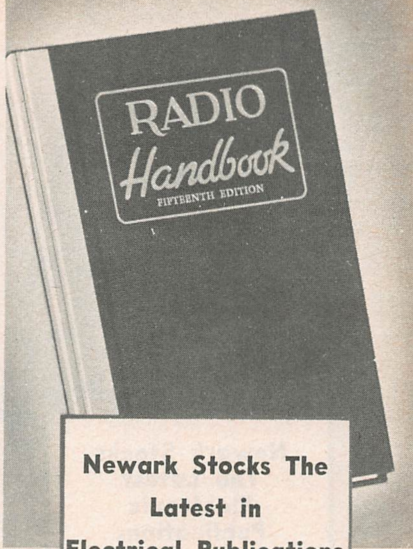

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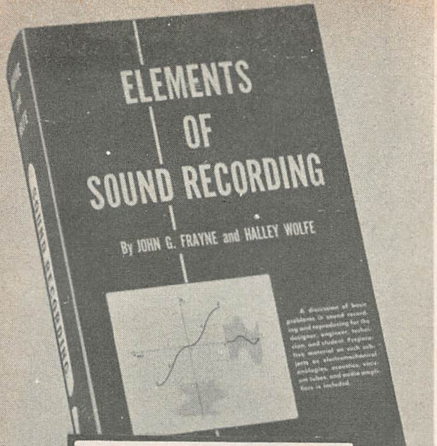
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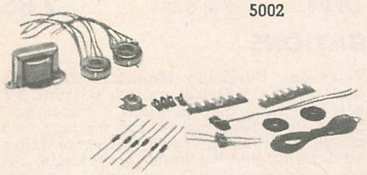

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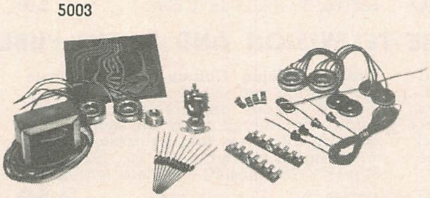

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4414

EDUCATIONAL MAGNETIC AMPLIFIER KIT

Model 5002. A kit for the advanced student, technician and engineer wanting to become aquainted with fundamental principles of magnetic amplifiers. The simple satuarating reactor is covered first, followed by simple saturable reactor amplifier, half wave amplifiers and external and internal feedback amplifiers. Kit contains all necessary parts and detailed instructions. Two high gain toroidal amplifier reactors and other required components supplied. Color coded wires make the required connections easy to follow. Authoritative manual provides necessary theory along with bibliography of helpfull advanced articles. Shpg. wt., 2½ lbs.
62F737. NET.......... **21.40**

EDUCATIONAL PUSH-PULL MAGNETIC AMPLIFIER KIT

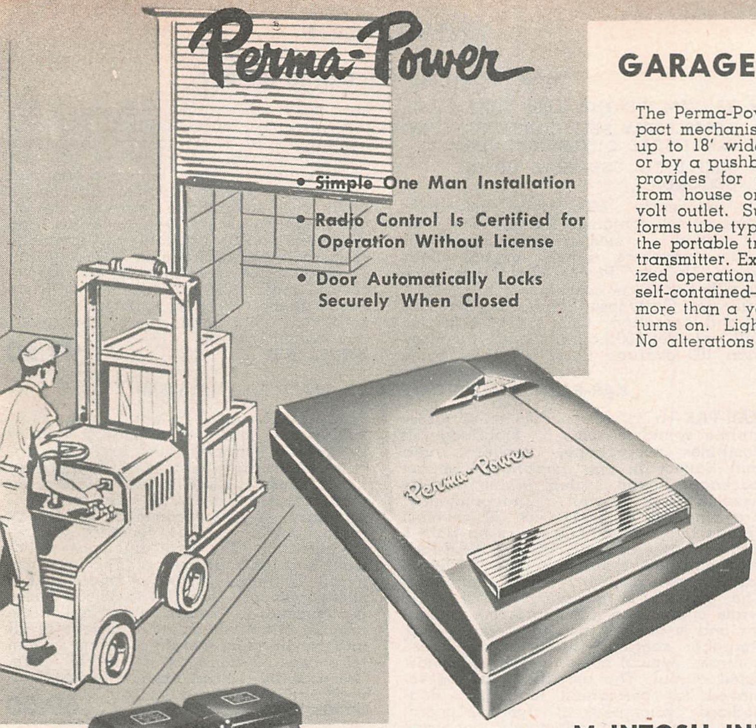
Model 5003. A kit for the advanced student, technician and engineer. Makes possible all the experiments listed for the Model 5002 and in addition the study of four core, full wave, push-pull circuits. Such circuits produce polarity reversing outputs in response to reversing input signals. Instrument quality amplifiers can be built. Kit contains all necessary parts along with authoritative instruction manual complete with reference bibliography. Four toroidal amplifier reactors and necessary parts included. Color coded leads simplify connections. Printed circuit board is provided for further simplification of mounting components. Shpg. Wt., 2½ lbs.
62F738. NET.......... **45.50**

MAGNETIC-TRANSISTOR INSTRUMENT AND CONTROL AMPLIFIER

Model 4960. Versitile, stable DC amplifier for use in instrumentation and control applications. Operates from 100-130 VAC, 60 cps power. Input signal 0-10 microamps for 0-10 ma output into 1000 ohm load. Output can be shorted without damage. 60 db power gain. Gain stability and linearity ±1% for stated power variations and temperature 0-150°F. A set point bias winding is provided for external adjustment. Set point can be displaced such that as much as a 50 microamp signal is required before unit produces output on proportional signal region. Gain may be varied from unity to rated external setting. Sealed in metal case 2 15/16x3 5/16x2½" high plus terminals and mounting studs. Solder termnials. Shpg. wt., 2 lbs.
62F739. NET.......... **99.50**

SELF BALANCING MAGNETIC AMPLIFIER

Model 4414. Push-pull, polarity reversing, DC output magnetic amplifier. Open loop gain approaches infinity with finite gain and trans-impedance relationships established by external negative feedback setting resistors. The four basic "self-balancing circuits (voltage or current balance with voltage or current feedback) can be obtained. Operates from 110-120 VAC, 60 cps. Full output achieved with less than 1 microamp signal. Rated output, ±50 microamps into 250 ohm load for maximum stability and gain. May be set to produce ±2 volts DC across 500 ohm load. Instructions included to determine resistance values. Size: 2 15/16x2 15/16x3⅛" high plus terminals and mounting studs. Shpg. wt., 1 lb.
62F740. NET.......... **84.25**



- Simple One Man Installation
- Radio Control Is Certified for Operation Without License
- Door Automatically Locks Securely When Closed

GARAGE DOOR OPENER

The Perma-Power Garage Door Operator is a rugged, yet compact mechanism with ample power to open and close any door up to 18' wide and 8' high. Can be operated by radio control, or by a pushbutton mounted in the garage. Low voltage wiring provides for auxiliary push-button and key-switch operation from house or outside garage. Plugs into any convenient 110 volt outlet. Super powerful three transistor transmitter outperforms tube type units. Operating distance is more than 50 ft. with the portable transmitter and more than 100 ft. with the installed transmitter. Exclusive patented coding system prevents unauthorized operation of garage door. Portable transmitter is completely self-contained—operates on one inexpensive battery and delivers more than a year of service. Door automatically opens and light turns on. Light remains on for two minutes after door is closed. No alterations to driveway, house or garage needed.

Model G653. Complete transistorized door opening system, with Portable Transistor transmitter. Shpg. wt., 65 lbs.
92F085. NET **146.51**

Model G340. Additional portable transistorized transmitter for second car. wt. 1 lb.
92F086. NET **19.11**

Model G511. Key switch. Operates system manually. Mount on garage wall or install on post in driveway. Shpg. wt., ¼ lb.
92F087. NET **4.12**

Model G654. Complete system with installed transistorized transmitter. 12 v. car battery operation only. Operates from distances greater than 100 feet. Shpg. wt., 70 lbs.
92F088. NET **146.51**

Model G350. Extra installed transistorized transmitter for second car. As above. 7 lbs.
92F089. NET **19.11**

McINTOSH INDUSTRIAL AMPLIFIERS

McIntosh 40
MC-40

McIntosh 75
MC-75

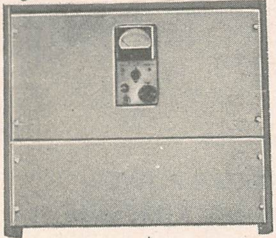
● *NEW* McINTOSH MC-40 AMPLIFIER

40 watt continuous Hi-fidelity amplifier. Distortion less than .5% at maximum output. 20-20,000 CPS. Input imp.: 250,000 ohms, input sensitivity—.5 volts to 30 volts. Noise and Hum level—90db or more below rated output. Output imp.: 4, 8, 16, 150 and 600 ohms. The 4, 8, 16 ohms outputs isolated from gnd. The 600 ohm winding is balanced to ground and center tapped. Output voltage 25 and 70.7 volts. Peak output of 80 watts instantaneous. Adjustable line voltage 117 or 125 VAC. 50/60 cycles, using 145 watts. Tube complement: 12AX7-Voltage amplifier, 12AU7 phase inverter, 12BH7-driver amplifier, 12AX7-cathode follower driver, 6L6/7027-output. Fused with 1.5 amp slo-blo type. Marked octal socket for use with McIntosh preamplifier MX-110. Chassis dimensions 13¾" long x 8⅛" wide x 7⅞" high with mounting instructions for proper ventilation. Wt., 35 lbs. Chrome and Black finish.
96F205. NET **159.00**

● *NEW* McINTOSH POWER AMPLIFIER

Model MC75. 75 watt power amp. Harmonic Distortion: Less than 0.5% at 75 watts output or less. Intermodulation Dist.: Less than 0.5% for any combination of frequencies from 20 cycles through 20,000 cycles if instantaneous peak power is below 150 watts. Freq. Range: At 75 watts output: .0, —0.1 db 16 cycles through 40,000 cycles. +0, —0.5 db 16 cycles through 60,000 cycles. At 38 watts output: +0, —1 db 10 cycles through 100 kilocycles. Noise and Hum: 90 db or more below rated output. Output Imp.: 4, 8, 16, 67, 150 and 600 ohms. Output volts: 25, 70.7, 115, and 230 volts. Input imp.: 250,000 ohms. Input sensitivity: 0.5 volts to 30 volts through gain control. Req. 117/125 VAC, 50/60 cps. Uses 240 watts at 75 watts output; 140 watts at zero signal output. Size: 16¾x8¼x8¼". Wt. 49 lbs.
96F206. NET **229.50**

Model MI-75. As above except for rack mounting. **Available on special order..275.00**


MI-200A/B

200 WATT AMPLIFIER (RACK MOUNT)

Model MI-200A/B. A 200 watt industrial power amplifier. Power Output: 200 watts continuous, distortion less than 1%, 20-20,000 cps. Freq. Response: 20-20,000 cps ±.2 db. Harmonic Distortion: less than 1% at 200 watts output or less, 20-20,000 cps. Output Impedance: 4, 6, 16.5 (57½ volts). 25 (70.7), 100 (141.4 volts) and 600 ohms. The 600 ohm output is balanced to ground; the low impedance outputs may be operated balanced or unbalanced. All outputs may be operated isolated from ground. Output Damping Factor: 10 to 1 or greater, 20 to 20,000 cps. AC Power: 108/117/125 volts 50/60 cps, 300-600 watts. Oper. Controls: All amp. controls are mounted on the amplifier chassis panel. On-Off switch, gain control, meter (to monitor current of output tubes), and meter switch are provided. Power Supply: 4-5U4 high volt. bridge rectifiers. 1-5Y3 low voltage rectifier. Panel is dark gray hammertone and chassis is light gray hammertone. 154 lbs.
99F822. NET **640.00**

"VEGA-MIKE" WIRELESS MIKE SYSTEM

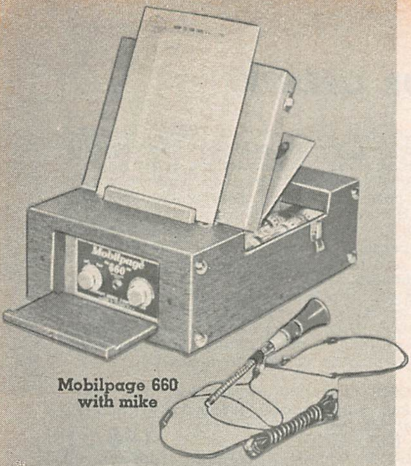
VEGA MICROPHONE RECEIVER
Vega Mike

Basic "Vega-Mike" System consists of a miniature Microphone-FM Transmitter completely self-contained and transistorized and a specially designed FM portable receiver to pick up transmited signals. miniature Microphone-Transmitters are available in two versions: Lavalier and Hand-Held Vega-Mike. Contains its own dynamic microphone, FM Transis. Transmitter, and 2-6½v. Mallory TR11SR mercury batteries. Frequency response 80-14,000 cps. Standard frequency available: 33.14 Mc, 35.02 Mc, 42.98 Mc (General business use) and 26.10 26.48 Mc (Broadcast Radio/TV apps.). Size 1" dia. x 5⅛" long. 13 tubes complement, built-in amplifier and monitor speaker, two high and low imped. outputs. Size 6¾x9⅜x12⅝". 20 lbs.

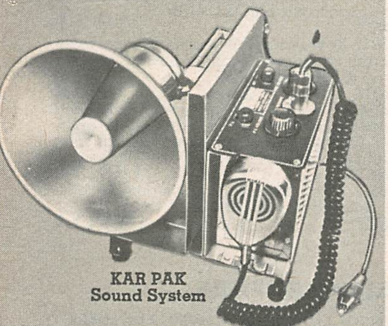
Type 01-0001. Lavalier Vega-Mike Basic System.
61F806. NET **495.00**

Type 01-0002. Hand Mike. Basic System.
61F807. NET **495.00**

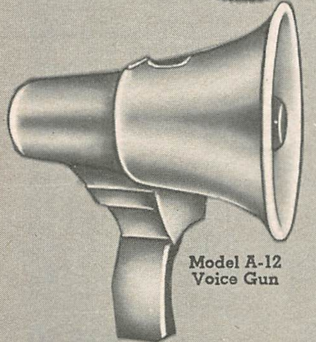
Type TR115-R. Mallory Mercury Battery for Vega-Mike.
49F535. NET **1.80**



Mobilpage 660 with mike



KAR PAK Sound System



Model A-12 Voice Gun

Ideal as public address systems

Perfect for meetings, conferences, dances

Serves audiences of over 500

MOBILPAGE

"660" PORTABLE ELECTRONIC LECTERN

- BANTAM WEIGHT—LESS THAN 8 LBS.
- COMPLETELY SELF-CONTAINED — NO ELECTRICAL OUTLET REQUIRED
- SIMPLE TO USE—SETS UP IN SECONDS

The handsome "660" is an amazingly compact self-contained P.A. System. Easily carried . . . sets up in seconds. Twin Alnico speakers deliver crystal clear sound. Unique "Power Miser" transistor amplifier uses low cost standard flashlight batteries. Costs less than ½c per hour for normal operation. One set of batteries will last over 500 hours, enough for more than 100 average uses. Ideal for sales meetings, conventions, teaching, lecturing, auctions, bingo, festivals and demonstrations of every conceivable type. The 80D microphone is light weight and easy to use. Its extra long cordage and positive-positioning lavalier attachment holds the microphone correctly at all times, minimizes annoying feedback and keeps the volume constant—yet gives the speaker complete freedom of movement. The handsome decorator styled attache case is scuff-resistant. Complete with six flashlight batteries, microphone with 12' cord and plug, and microphone chest support with swivel.

88F212. NET **99.50**

KAR-PAK, TRANSISTORIZED 22 WATT P. A. SYSTEM

KAR-PAK—a new concept in portable-mobile sound systems by Mobilpage. It combines microphone, amplifier, horn and battery in one amazingly compact package. Sound system which can be used in a car as well as independently. Car-installed in less than 30 seconds (plugs into lighter). Operates on both 6 and 12 volt electrical systems. KAR-PAK is completely transistorized with the 4 latest type transistors and 1 thermistor. The amplifier's maximum output is 10 watts continuous. Eliminates microphonics and is always instantly ready to go. Amplifier contains dual "audio taper" controls. Typical noise ratio: 68 db below rated output. The amplifier may be removed for permanent mounting. Ruggedized "voice-peaked" dynamic microphone which can effectively penetrate high ambient crowd and traffic noises. It has a telephone leaf press-to-talk switch with plated "wiping action" contacts. Cast housing finish embedded in handsome chrome. Comes with a chrome-plated hanger that holds the microphone firmly in place when not in use. KAR-PAK is not sensitive to battery polarity because of an ingenious exclusive circuit, the Polarity Sentry, which automatically senses the car battery polarity and then properly connects the amplifier. Auxiliary input accommodates 2-way radio, phono or tape recorder for re-amplification. The high efficiency re-entrant horn is weatherproof. The horn has a full 90 degree coverage angle and a useful response from 300 to 13,000 cycles per second. A heavy duty adjustable bracket allows the horn to project in all angles. Shipping weight of sound system 18 pounds. Dimensions 10"x10"x13" high. Green, weatherproof, baked enamel. Complete with Batteries. 13½ lbs.

88F208. NET **169.50**

Model CB1. Canvas carrying case for above.

88F209. NET 8.00

49F106. F4P1 Burgess Battery (2 used in above). **NET EACH** 1.29

MODEL 60D

Dynamic microphone in satin chrome housing with push to talk button. Coiled cord with Cannon connector for Mobilpage 400 and Kar Pak amplifier above. Shpg. wt., 5 lbs.

88F211. NET 30.00

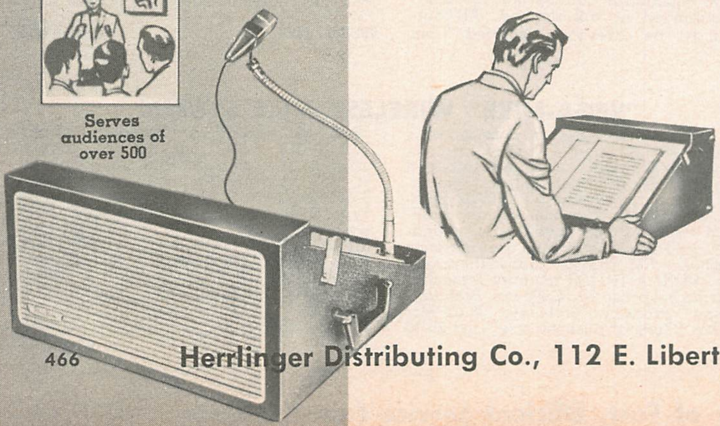
HOLMIN

MODEL A-12 TRANSISTORIZED VOICE GUN

- UNBREAKABLE
- TRANSISTORIZED
- WEIGHS ONLY 3 LBS.
- SINGLE UNIT CONSTRUCTION
- SHARP CLEAR VOICE

A self-contained public address system consisting of microphone, transistor amplifier, speaker and power supply in one unit. The horn, handle and mouthpiece are made of molded Cycolac making the Voice Gun virtually unbreakable. It is designed to function perfectly in summer heat and sun, in rain and snow and in sub-zero cold. There are no tubes, cords or separate power units. Its sharp, clear voice cuts through din and confusion without wait for "warm-up" acting the moment you push the button in the pistol grip. No adjustments or volume control are necessary—you simply raise or lower your voice. An adjustable shoulder strap is provided for ease in carrying. The Voice Gun uses transistors for longer life and efficiency. It has a water-proofed magnetic microphone and thermistor for temperature compensation. Amplifier circuit is printed on miniature chassis. Uses ordinary penlight batteries. Dimensions: Diameter of bell—7¼"; length—9½"; overall height—10½". 2 stage push-pull class B printed circuit amplifier. 3 transistors, 1 driver, 2 output. Industrial "paging type" speaker with an 8 ohm impedance. Molded Cycolac battery clip with silver plated contacts. Dual spring, "push - to - talk" type switch for ease of use and positive action. Shipped complete with batteries, carrying strap. 5¼ lbs.

88F205. NET **89.96**



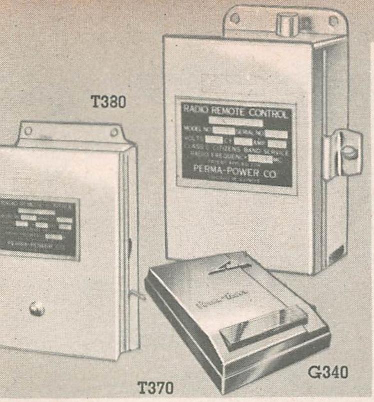
PERMA-POWER ROVING ROSTRUM

S100. Complete high volume sound unit in a single case. Portable all transistor design powered by 2 standard lantern batteries. Employs 10 watt, push-pull all transistor amplifier and dynamic low impedance Astatic microphone with response of 60-10,000 cps. Two full fidelity 6"x9" speakers with 10 oz. ceramic magnets, each can handle full amplifier power. One built-into reading table, auxiliary speaker in case top. Inputs for phonograph or radio and microphone or tape recorder. Dimensions: 9¼"x16¾"x18". Outputs: aux. speaker. Weight. 30 lbs.

92F084. NET **124.50**

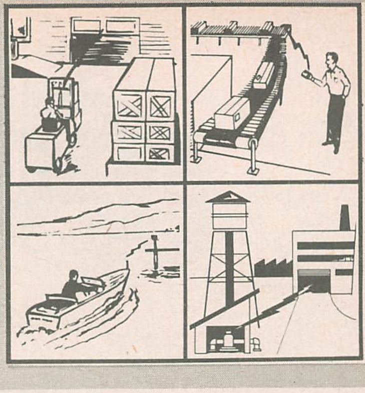
Uses two TW1 Burgess batteries.

49F316. NET EA. 1.83



FOR AUTOMATIC OPERATION OF

- Garage and Warehouse Doors
- Entrance Gates • Lights
- Signals • Burglar alarms
- Approach warnings • Pumps
- Material handling equipment
- Annunciators Many more applications



Perma-Power RADIO CONTROLLED SWITCH SYSTEM COMPONENTS

Fully transistorized radio controlled switch systems designed to fulfill the requirements of a highly reliable, low cost radio remote control. Eliminates the use of wires, phone lines or cables wherever they are difficult or impossible to install and maintain. A complete system includes transmitter, receiver, antenna and mtg. hdw. It may be used to control entrance gates, lighting, watchman signalling, approach warnings, annunciators, burglar alarms, control pumps and machinery, signs, and many more applications.

STANDARD SERIES

Lowest cost, highly reliable control systems for non-commercial and residential door control, gate operators, lighting controls, etc. Up to 200 ft. operation.

Type S Receivers

Single conversion, superheterodyne circuit. Crystal controlled. Complete with 8 ft. wire antenna and leads for input and output connections. Metal dust cover case. Sensitivity: 50 uv. Selectivity: 17 kc at 3 db; 50 kc at 60 db. Image Rejection: more than 40 db. Transistors: Four 2N1526; two 2N408. Relay Contacts: Rated at 1 amp., 115 VAC, normally open. Size: 9x3x3½".

92F682. Model G232. For 24 VAC (1 watt). 2 lbs. **NET...... 36.95**
92F683. Model G230. For 117 VAC (3.5 watts). 3 lbs. **NET...... 36.95**

Type S Portable Transmitter

Model G340. Completely self-contained in attractive plastic case. Crystal controlled RF; single tone modulation. Built in ferrite rod antenna. Up to 200 ft. operation distance with type S receiver. Complete with 9-volt battery. Output 45 mw. Uses three transistors. Size: 2¾x3¾x1". Wt., 10 oz.

92F684. NET...... 19.50

Type S Mobile Transmitter

Model G350. For permanent, wired-in installation, requiring security against loss or damage. Gives up to 300 ft. operation. For use only in vehicles with 12-volt, negative ground battery. Draws power only when button is pushed. Crystal controlled RF; single tone modulation. For use with car radio antenna, snap on mounting plate and metal dust cover case. Output 45 mw. 3 transistors. Size: 4⅛x3⅛x2½". Wt., 1½ lbs.

92F685. NET...... 19.50

COMMERCIAL SERIES

Highly reliable, high quality control systems for many commercial applications such as: Door controls, watchman signalling, annunciators, remote lighting, etc. Up to 500 ft. operation.

Type C Receivers

Similar to type S receiver. Antenna socket accepts PL259 coaxial connector. May be used with simple wire type (supplied), 40" base loaded whip, remote citizens bands type coaxial vertical, ground plane, or 3-element beam antennas. Hinged cover metal cabinet with knockouts for std. wiring. Input impedance: 50 ohms. Relay Contacts: DPDT type rated 5 amps., 115 VAC. Size: 6x9x3".

92F686. Model R241. For 24 VAC. (1 W.) 5¼ lbs. **NET...... 65.00**
92F687. Model R240. For 117 VAC. (3.5 W.) 6¼ lbs. **NET...... 70.00**

Type C Mobile Transmitter

Model T351. Similar to Type S Mobile Transmitter. Uses vertical whip antenna. Up to 500 ft. range. Heavy-duty push-button control. Can be operated on 6, 12, 18, 24, or 36 VDC sources by internal selection. Snap on mounting plate for easy installation. Metal dust cover case. Size: 5x4x2½". Wt., 1½ lbs.

92F688. NET...... 50.00

Type C Fixed Station Transmitter

Model T360. Crystal controlled RF, single tone modulation transmitter for 115 VAC operation. Provided with hinged cover, metal case with knockouts for standard wiring. Antenna socket accepts type PL259 coax. connector. Antenna may be simple wire type (Supplied), 42" base loaded whip, or remotely fed citizens band type (coaxial vertical, ground plane or 3 element beam). Front-cover push-button operation terminals provided for additional 24 VAC push-button stations. Output: 45 mw to 50-ohm antenna. Three transistors. Size: 6x6x3". Wt., 4 lbs.

92F689. NET...... 55.00
92F690. Model T361. For 9 V battery operation. **NET...... 45.00**

Licensing: Certified for operation without license under FCC rules.
Operating Frequencies: 26.97 to 27.27 mc.
Operating Distance: From a few feet to 10 miles.
Channels: Six crystal-controlled RF frequencies and 12 audio tone combinations provide 72 channels.

Selective RF and AF response and a powerful noise rejection circuit assure against operation from undesired signals. Plug-in audio tone selectors provide for rapid field changes; no tuning required.

INDUSTRIAL SERIES

Exceptionally rugged and reliable, premium quality control systems tailored to the needs of commercial and industrial uses. Individually quality inspected and tested to assure operational dependability, longer life and minimum maintenance. Features heavy duty circuit board, hermetically sealed components, plug in relays, socketed transistors and diodes. Supplied with weather proof, totally enclosed, JIC approved, hinged metal cabinet. Range: up to 10 miles.

Type P Receivers

Single conversion, superheterodyne circuit, ±.01% crystal controlled. Adjustable gain control. Antenna may be 42" base loaded whip or remote citizens band type. No antenna supplied. Sensitivity: 5 uv. Selectivity: 17 kc at 3 db; 50 kc at 60 db. Image Rejection: more than 50 db. Input Impedance: 50 ohms for PL259 coax connector. Relay Contacts: DPDT rated 5 amps. at 115 VAC. Size: 8x10x4".

92F691. Model R250. For 115 VAC. **NET...... 175.00**
92F692. Model R251. For 12, 18, 24, or 36 VDC. 7 lbs. **NET...... 155.00**
Model R252. Two channel version has two individually-controlled relay outputs for operating signs, pumps, motors, equipment using "across the line" starters, etc. 115 VAC operation. Size: 10x12x5". Shpg. wt., 15 lbs.
92F693. NET...... 225.00

Type P Transmitters

Accurate ±.01% crystal controlled RF, single tone modulation transmitter. Antenna socket for PL259 coax connector to 42" base loaded whip (not supplied). Heavy-duty push-button operation. Output: 45 mw to 50 ohm antenna. Uses three transistors. Instrument panel mtg. For 12, 18, 24, or 36 VDC. Size: 4x6x3". 3½ lbs.

Model T371. Mobile Transmitter.
92F694. NET...... 95.00
Model T370. Fixed Station Transmitter. For 117 VAC. Has internal terminals for additional push-button stations. Push-button on cover. No antenna supplied. Size: 6x6x3". Wt., 5 lbs.
92F695. NET...... 125.00

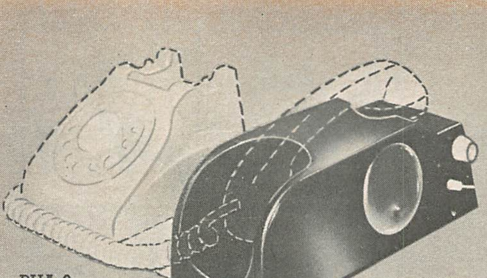
Type P High Power Transmitters

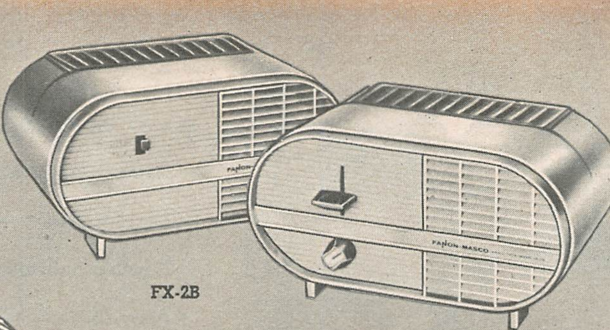
Operates in Class C citizens band as provided under FCC rules: Requires license which is easily obtained by any U.S. citizen or business without examination. Operates from push-button on cover; internal terminals provided for additional push-buttons. Up to 10 mile range when used with Type P receivers. Crystal controlled (±.01%) RF; single tone modulation. Antenna socket for PL259 coax connector. Antenna not supplied. Output: 3 watts to 50 ohm antenna. Tubes: one 5814A and one 6005. 117 VAC operation. Size: 8x10x4". Shpg. wt., 12 lbs.

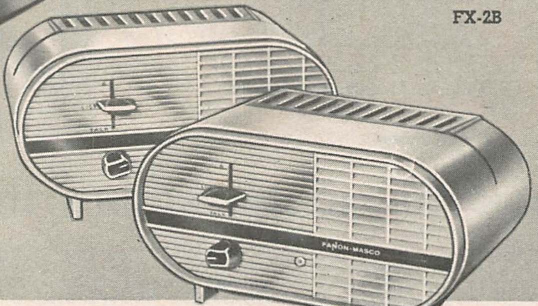
92F696. Model T380. Single channel. **NET...... 185.00**
Model T381. Two-channel version with two individually-controlled channels for use with two channel receiver. Size: 10x12x5". Shpg. wt., 17 lbs.
92F697. NET...... 225.00
Model T381. As above, supplied with internal timer for automatic pump control.
92F698. NET...... 275.00

SPECIAL CONTROLS

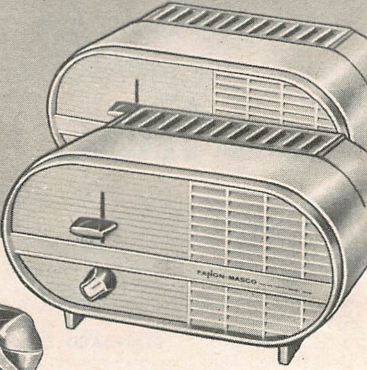
Special controls are available on special order for applications requiring multiple channels. Transmitters can be supplied with separate console units with push-button selectors; receivers are available with up to 12 control relays individually controllable from a single 12 channel transmitter or 12 individual transmitters. Write NEWARK for additional information.


PHA-3


FX-2B


FW-50B

Fanon
INTERCOMS


1500B

TRANSISTORIZED TELEPHONE AMPLIFIER

Model PHA-3. Receiving: Fone-Amp. amplifies incoming voice and projects it through 2½" extension speaker. Transmitting: An acoustically built-in chamber picks up the voice and feeds it into the phone transmitter. This feature allows you to move around while conversing. Spec.: Sensitivity —48 db; Frequency Response: 280-4800 cps at ±5db. Transistors: Three; Power Source; Complete with 9 volt battery. Dim.: 10⅛"x4¼"x3" high. Ivory. 5 lbs.

95F594. Model PHA-3. NET........ **11.95**

WIRELESS INTERCOM SYSTEM

Model FW-50B. Deluxe 2-station wireless intercom system. Just plug in. 2 or 3 wire line selector switch to match every type of wiring. Noise silencing control eliminates interference of power lines. Powerful 4 tube and silicon rectifier amp. picks up voice at considerable distance. Neon pilot light indicates when intercom is in operation. Several stations may be added. 105-125V AC or DC, 50 or 60 cycles, power consumption 30 watts. Audio power output 2½ watts, frequency 200kc. Two-toned beige and gold styrene cabinets. Size: 8¾x4¾x5¾". Shpg. wt., 7 lbs.

95F584. NET........ **62.95**
95F585. Model FW-51B. Additional remote. **NET**........32.25

DELUXE 2-STATION SYSTEM

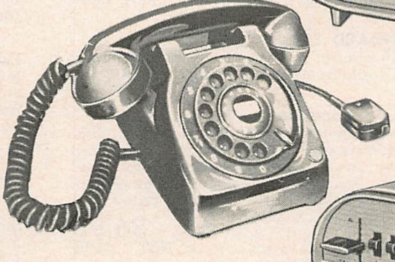
Model FX-2B. Small talk. Ultra-sensitive 2 station intercom system with 50 ft. cable. Powerful amplifier picks up slightest noise. Remote may originate calls to master and may answer from a distance without operating switch. Master has its own volume control with on-off switch, separate "press-to-talk" switch and pilot light to show when unit is in operation. Extremely low hum and noise. Additional remote units may be added. Power output 2.5 watts, power consumption 20 watts, 3½" PM speakers, 110-120V, AC or DC, 50 or 60 cycles. Two-toned beige and gold styrene cabinets. Size: 8¾x4¾x5¾". Shpg. wt., 7 lbs.
95F570. FX-2B. NET........ **23.90**
95F572. Addl. FS-B. Remote with 50 ft. of cable. **NET**........7.95

DELUXE 2 STATION ALL TRANSISTOR INTERCOM

Model 1500B. Ideal outdoor system for farms, camps, storage yards, warehouses and also for home or office. Operates on standard penlight batteries and can be installed anywhere. For regular intercom use, the remote unit signals the master with a "beep" tone and the master is tuned on only as required. The master has a "standby-listen-talk" switch and volume control and the remote is equipped with a "listen-call" switch. Specification: Power Output: .8 watts; Circuitry: Uses 4 PNP germanium Transistors. Class B push-pull amplifier; Power Gain 70 db; Input and Output impedance: 3.2 ohms; Negative Feedback: 6 db for stability and low distortion; Complete with batteries: four 1½ volt cells, size AA (Burgess type Z. NEDA #15) and 50' cable. Two-toned beige and gold cabinets. Size 8¾x4¾x5¾". Shpg. wt., 7 lbs.
95F586. Model 1500B. NET........ **29.95**
Model 152B. Additional Remote with 50' cable.
95F588. NET........7.95

ADD-A-CALL MASTER

Model FM-5B. Low hum and noise level. May be used with up to 4 remotes. This is a master-to-remote system. Only one master can be used in a system. Master may speak to one, several or all remotes. Remotes can originate calls to the master at will and to other remotes when set up by master. 110-120V AC or DC, 50 or 60 cycles, 3½" Alnico V magnet speaker, 3.2 ohm voice coil, power output 2½ watts, power consumption 20 watts, Two-tone beige and gold styrene cabinet. Size: 8¾x4¾x5¾". Shpg. wt., master, 3¾ lbs.; remote 2¼ lbs.
95F575. Model FM-5B. Master station. **NET**........ **25.40**
95F577. Model FC-B. Remote station. **NET**........8.40
Cable Requirements: 3 conductors from each remote to the master.
36F440. 3-conductor cable. NET per foot........ .03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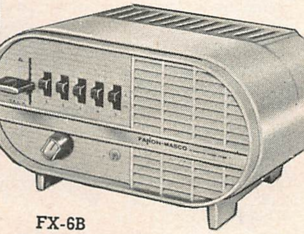

FX-6B

ECONOFONE 6 STATION MASTER

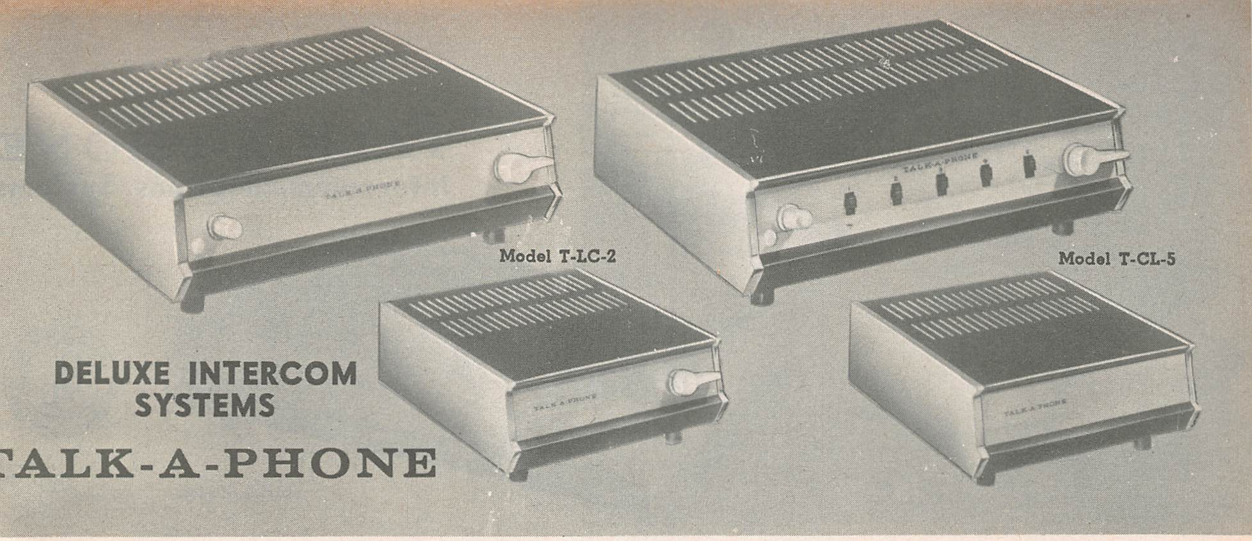
MODEL FX-6B. Up to six of these masters can be used in an all-master installation. Any master can call one or more or all other masters. Three independent, simultaneous, conversations may be held or a conference among several masters. 110-120 V. AC or DC, 50 or 60 cyc. 3½" Alnico speaker, 3.2 ohm voice coil, power output 2½ watts, power consumption 20 watts. Two-toned beige and gold cabinet, 8¾x4¾x5¾". Shpg. wt., 3½ lbs.
95F583. Model FX-6B. Master station. **NET**........ **23.90**
95F577. Model FC-B. Remote for above. **NET**........8.40
37F694. 7-conductor cable for up to 6 station All-Master system or 1 Master with up to 5 Remotes. **NET per foot**........ .07

A MULTI-CHANNEL DIAL TELEPHONE SYSTEM

Model 1010. Here is an exceptionally fine automatic dial telephone intercom system that does not require a switchboard installation. Performs the entire switching function and permits selective ringing and selective talking. The phones may be used in All-Master, Master-to-Remote or Inter-Mixed systems. In a maximum All-Master installation (Model 1010 phones) 11 telephones can be interconnected providing five separate simultaneous two-way conversations, Master-TO-Remote system consists of one Model 1010 Master and up to ten Model 101 phones. Only one conversation can be in progress at any one time; however. the master can connect one remote to another and also set up conferences on the single common talking line. Inter-Mix System provides a multiple number of masters with their associated remotes. Maximum remotes associated with any one master is 11 minus the number of masters. A master can connect one of its remotes to another master. Paging relay can be provided for any one of the master phones. Power Supply: Up to six phones: 1 Model PSA (117 VAC). Over six phones 2 Model PSA. With installation instructions.

95F590. Model 1010, Master Station........**NET: each** **44.95**
95F591. Model 101, Sub Station for 1010 Master. **NET: each 28.50**
95F580. Model PSA, Power Supply ....**NET: 17.95**
95F581. BPA cable adapter required for each PSA. **NET**........ .90
95F592. Model PR10, Paging Relay for System........**NET: 22.45**

Cable requirements: All-Master system uses one twisted pair plus one twisted pair for each Master. Master-To-Remote uses 3 conductors plus one for each Remote in system. Intermix requirements are a combination of the above two cabling systems.



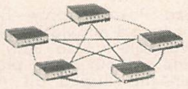
Model T-LC-2

Model T-CL-5

DELUXE INTERCOM SYSTEMS

TALK-A-PHONE

SUPER-SELECTIVE ALL MASTER SYSTEMS



Versatile intercom system consisting entirely of Masters. Permits several separate conversations to be carried on without interfering with each other. Provides absolute privacy. Stations may be located even 1000 feet apart. Operates on 110-120 volts, AC-DC. Complete with tubes and instructions. Charcoal gray and brushed chrome. Cabinet size, 10½"x8¾"x3⅛". Shpg. wt., 8 lbs.

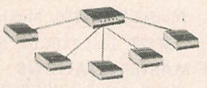
95F406. Model T-LS-5. For 5 stations. **NET** **34.95**
95F407. Model T-LS-10. For 10 stations. **NET** **44.00**

HI-VOLUME MASTERS

Operate the same as the above masters with the added feature of 10 times volume output. For 110-120 volts, AC only. Masters T-AC-510 and T-AC-505 may not be intermixed with any other Master.

95F437. Model T-AC-505. Hi-Volume, 5 station. **NET** **44.00**
95F438. Model T-AC-510. Hi-Volume, 10 stations. **NET** **52.50**
36F441. 5506 (6-conductor) cable. For interconnecting T-LS-5 or T-AC-505 **NET** per foot .... **.08**
36F442. 9911 (11-conductor) cable. For interconnecting T-LS-10 or T-AC-510. **NET** per foot .... **.14**

MASTER SELECTIVE INTERCOMMUNICATION SYSTEMS



A system consisting of one Master Station and one to ten Sub-Stations. Master Station can talk and listen to any one Sub-Station or with all simultaneously. Only the Master Station plugs into an electrical outlet. System has optional feature whereby Sub-Stations can be connected "privately," or "non-privately" and still originate calls to the Master under either application. Cabinets are charcoal gray and brushed chrome, 10½x8¾x3⅛". Subs measure 7½x8¾x2⅞". With tubes and instructions. For 110-120 volts, AC-DC. UL approved. HIGH VOLUME OUTPUT MASTERS T-AC-5406 and T-AC-5411 operate as above with the added feature of 10 times volume output, for large areas or noisy locations. Operate on 110-120 volts, AC only. Note: Only one master station can be used in each Master Selective System. Weight: Masters—8 lbs., Sub-Stations—6 lbs.

95F400. T-LM-5 Master. For up to 5 Subs. **NET** **34.95**
95F401. T-LM-10 Master. For up to 10 Subs. **NET** **44.00**
95F404. T-AC-5406 High Vol. Master. 5 Sub. capacity. **NET 44.00**
95F405. T-AC-5411 High Vol. Master. 10 Sub. capacity. **NET 52.50**
95F402. T-LR-3 Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. **NET** **15.95**
95F403. T-LR-3M Sub-Station (as above, but in grained, baked enamel finish) for use with any of above Masters. **NET**.... **11.95**
36F440. 5303. Three-conductor cable for connecting Sub-Stations to Master. **NET (per ft.)** .... **.03**

2-STATION INTERCOMMUNICATION SYSTEM

Provides voice communication between any two points. "Elsie" is a packaged item, complete with a Master Station, a Sub-Station and 50 feet of interconnecting cable. For 110-120 volts, AC-DC. U.L. approved. Master size 10½x8¾x3⅛". Sub size: 7½x8¾x2⅞". Shipping weight, complete: 13 lbs.

Model T-LC-2. 2-Station system complete with tubes and 50 ft. of cable.
95F412. NET **36.00**
36F440. Type 5303. Extra 3-conductor cable. **NET per foot .03**

ADDITIONAL ACCESSORIES

95F415. T-HP-3. Hi-Power Staff Station for wall mounting. Charcoal gray metal case. Wt., 8 lbs. **NET** **16.50**
95F416. T-C-20. Nine inch weatherproof Re-entrant Horn. Charcoal gray color. Wt., 5 lbs. **NET** **26.50**
95F417. T-S-100. Wall switch for origination of call through T-C-20 or T-HP-3 with Master Selective Systems. **NET** **3.50**

WIRELESS 6 AND 12-STATION SELECTIVE SYSTEM

Latest circuit incorporates the exclusive "Sonic Gate". Together with the "Squelch" circuit, line noises and hum are effectively suppressed while system is in operation, as well as when in standby position. Simple to install. Requires no wiring, no cable. Use where any 110V AC or DC electrical outlets are available. Each Master Station equipped with a Six or 12-channel Selector. Any Master can transmit on any of its channels, and receive calls on the channel it elects to use. Each Master with tubes and instructions. Size 14x8¾x3⅛". Wt., 12½ lbs.

95F418. T-LCM-8906. 6 Channel Master **79.50**
95F441. T-LCM-8912. 12 Channel Master **89.90**

Where some Wireless locations need not originate calls but must reply when called, Staff Stations are available. These units cannot originate calls but can answer Master Station. Size: 10½x8¾x3⅛". Shipping weight, 6 lbs.

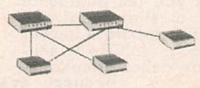
95F419. T-LCS-901. For Channel 1 only. **NET** **45.00**
Note: Staff stations for channels 2 to 6 available on special order.

2-STATION WIRELESS SYSTEM

A quality intercom system for Home, Office, Store, Factory, and Farm. No installation, wiring or cables. Plug into 110V AC or DC electrical outlet. Uni-Trans gives you dictation and supervisory control. When set for Uni-Trans, provides continuous transmission to other units, to dictate or to listen in. Beautifully styled Cabinets are charcoal gray and brushed chrome, 10½x8¾x3⅛". Consists of two Master stations. With tubes and instructions. 16 lbs.

95F413. Model T-LC-33. Two station system. **NET** **79.90**
95F414. Model T-LC-17. Additional single station. 8 lbs. **NET** **39.95**

COMBINATION SYSTEMS



Designed for the more flexible type of system requiring the operation of more than one Master Station, along with Sub-Stations which need not originate calls. Masters may talk to each other and to each Sub-Station in the system selectively; or, one or more Subs can be exclusive to only one Master. Masters can switch themselves "private", so that other Masters cannot listen in to them, or "non-private" at will. Model T-CL-5 has total capacity of 5 stations. Model T-CL-10 has total capacity of 10 stations. Masters in charcoal gray and brushed chrome cabinets. 10½x8¾x3⅛". Sub-Stations measure 7½x8¾x2⅞". Complete with tubes and instructions. Masters operate on 110-120 volts AC-DC. Source of electric current not needed to operate Sub-Stations. Shpg. Wt. 8 lbs.

95F408. T-CL-5. Master for 5 stations. **NET** **42.00**
95F409. T-CL-10. Master for 10 stations. **NET** **51.00**
95F410. T-LR-2. Sub-Station (in same deluxe finish as Masters) for use with either of above Masters. Shpg. wt., 6 lbs. **NET** **15.95**
95F411. T-LR-2M. Sub-Station (as above, but in grained, baked enamel finish) for use with either Master. Wt., 6 lbs. **NET** **11.95**

HI-VOLUME MASTERS

Operate the same as the above masters with the added feature of 10 times volume output. For 110-120 volts, AC only. Masters T-AC-610 and T-AC-605 may not be intermixed with any other Master.

95F439. Model T-AC-605. Hi-Volume, 5 stations. **NET** **51.00**
95F440. Model T-AC-610. Hi-Volume, 10 stations. **NET** **59.95**
36F438. 6210. 5 pair cable for interconnecting T-CL-5 or T-AC-605. **NET per foot** .... **.14**
36F439. 6226. 13 pair cable for interconnecting T-CL-10 or T-AC-610 **NET per foot** .... **.28**
36F446. 6902. 2 conductor cable for connecting Sub-Station to nearest master. **NET per foot** .... **.02**

TALK-A-PHONE
Intercommunications Systems

TALK-A-PHONE
TALK-A-PHONE
TALK-A-PHONE

T-C-41
T-C-41M

T-C-42
T-C-42M

Master Station

ALL TRANSISTOR INTERCOMS

"CHIEF" MASTER STATIONS

Can be used in any combination—with all Masters—one Master and Staff Stations—or a number of Masters combined with Staff Stations. 6, 12, and 20 Station Masters, together with Staff Stations can be intermixed in same system. Masters can talk with any other Master, as well as with Staffs. Staff Stations can answer all Masters and can orginate calls to one or two Masters, depending upon Staff's capacity. Staff Stations are not connected to electrical outlet.

Exclusive Features: Dynasonic Design enables stations to perform "privately" (so no one can listen in) or "non privately" (for reply without use of controls). The same station can be "private" to one or more Masters and "non private" to others, and retain full communication facilities. (2) Incoming call chime indicates that your Master station is being called. (3) Monitoring signal visually indicates to a "non private" station that it is being monitored. (3) Busy signal visibly indicates when station you call is "busy". All units have facility to override "busy signal" for important calls. (4) Dynasonic selector permits intermixing of stations and variation of performance. Add to system at any time without discarding original equipment. (5) Multi-magic station selector enables selection of up to 30 stations with only 12 push buttons. (5) Uni-trans dictation control—eliminates need to operate or hold down controls when one-way transmission is desired or when Cradle phone is used. (6) External relay control enables Master to activate external relays for operating siren, gong, light, etc. For use in extremely high noise level areas to signal personnel, who can then communicate with caller from Master in quieter location or in sound booth. (7) Reciprocal Power supply—Each Master operates on 110-120 volts AC only and should be plugged in. Where no electrical outlet is available up to 30% of the Masters in the system can operate without being plugged in. (8) Noise free voice range power—the rugged, all transistor high gain amplifier provides unsurpassed clarity and naturalness of tone. The exclusive patented circuit enables performance without noise, hum or distortion, when used with talk-a-phone cable. (9) Hi power staff stations and horns. For use with any Master where exceptionally high volume at staff station location is needed. Ideal for paging speakers. T-HP-3 provides more than twice the volume of universal Staff. T-C-20 provides about 4 times greater volume . . . more with Redi Power Master. (10) Wall switch combine with Talk-a-phone Horn or Hi Power staff to add origination of call feature. All "Chief" and "Chief Redi-Power" Master Stations come complete with junction box and built in power supply attached by 6' flexible cable. Master size: 14" width, 3⅛" height, 8¾" depth. For 110-120 volts AC only, U.L. approved.

Model T-C-4906. Master for 6 Stations. Shpg. wt., 13 lbs.
95F425. List $136.00. **NET PER STATION**.......... **79.50**

Model T-C-4912. Master for 12 Stations. Shpg. wt., 14 lbs.
95F426. List $154.00. **NET PER STATION**.......... **89.80**

Model T-C-4920. Master for 20 Stations. Shpg. wt., 17 lbs.
95F427. List $184.00. **NET PER STATION**.......... **107.40**

"CHIEF" REDI-POWER MASTER STATIONS

"Chief" Redi-Power Master Stations have all of the features listed above, plus built-in extra power for use when needed. This added power (up to 20 watts), gives you the additional volume required when calling a number of stations at one time or calling noisy locations. Needs no separate power booster which would eliminate return speech. Volume is self-compensating whether 2, 6 or 12 stations are called simultaneously. Each station receives its pre-determined volume with no division of output when more stations are called at one time. One or more Redi-Power Masters can be combined with regular Chief Masters and staff stations in same system. 110-120V AC. Charcoal gray and brushed chrome. Size: 14x8¾x3⅛".

Model T-CRP-5912. Master for 12 stations. Wt., 18 lbs.
95F432. List $235.00. **NET PER STATION**.......... **138.00**

"CHIEF" STAFF STATIONS

For use with any "Chief" Master, Staff Stations may be connected "privately" or "non-privately". Connected "non-privately", Master can be answered at a distance from the Staff without operation of any controls. "Non-private" Staff may reply to all Masters in the system (whether connected directly to them or not) and can originate calls to one or two, depending upon its capacity. Connected "privately" no one can "listen-in", but any Master can call. Private Staff can originate calls and reply to 1 or 2 Masters depending on its capacity. Staff Stations do not need electrical outlets.

Model T-C-41. Staff. Originates calls to 1 Master. Charcoal gray leatherette and brushed chrome. Size: 7½x8¾x3⅛". 8 lbs.
95F428. List $36.50. **NET PER STATION**.......... 21.50

Model T-C-41-M. Same as T-C-41 but with painted finish. 8 lbs.
95F429. List $29.95. **NET PER STATION**.......... 17.50

HOW TO DETERMINE CABLE REQUIREMENTS

To inter-connect Master Stations, measure from first Master to second Master only, from 2nd to 3rd Master only, etc., until last unit in system is reached and total. For T-C-4920 use two lengths of 6226 Cable. To connect T-C-41, T-C-20, or T-HP-3 Staff Stations, measure from Staff Station to one Master to which Staff Station originates calls. To connect T-C-42 Staff Stations measure separate length of cable from Staff Station to each Master Station to which staff originates calls.

Model T-C-42. Staff. Originates calls to 2 Masters. Charcoal gray leatherette and brushed chrome. 7½x8¾x3⅛". 8 lbs.
95F430. List $45.00. **NET PER STATION**.......... 26.50

Model T-C-42-M. Same as T-C-42 but with painted finish. 8 lbs.
95F431. List $38.50. **NET PER STATION**.......... 22.50

Model T-HP-3. Hi-Power Staff Station for wall mounting. Charcoal gray metal case. Size: 12x8x12". 5 watt capacity. Shpg. wt., 8 lbs
95F415. List $28.00. **NET PER STATION**.......... 16.50

Model T-C-20. Nine-inch Weatherproof Re-Entrant Horn. 15 watt capacity. With mounting bracket. Charcoal gray. Size: 12x8x12". Shpg. wt., 5 lbs.
95F416. List $44.95. **NET PER STATION**.......... 26.50

Model T-S-101. Wall Switch for originating calls to one Master through T-C-20, or T-HP-3 in Chief Systems. Gray. Wt., 1 lb.
95F434. List $11.95. **NET**.......... 6.95

Model T-W-1. Wall mounting brackets for T-C-41, T-C-41M, T-C-42, and T-C-42M.
95F436. **NET per pair**.......... .75

CABLE FOR CHIEF SERIES

36F447. Type 6206. 3-pair cable for connecting T-C-20, T-C-41, T-C-42. and T-HP-3. **NET per foot**.......... .09

36F437. Type 6214. 7-pair cable for interconnecting T-C-4906 Masters. **NET per foot**.......... .14

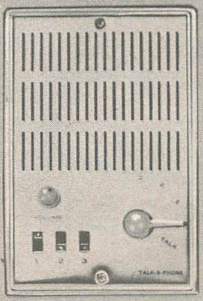
36F439. Type 6226. 13-pair cable for interconnecting T-C-4912, T-C-4920, and T-C-RP5912 Masters. **NET per foot**.......... .28

36F446. Type 6902. Cable 2 cond. for connecting T-C-20, and T-HP-3 without origination of call. **NET per foot**.......... .02

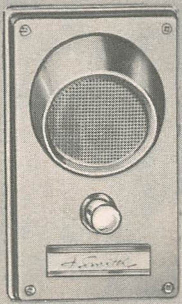
TALK-A-PHONE

All Transistorized Home Intercom-Radio Systems

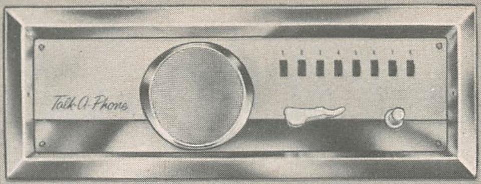
FULLY TRANSISTORIZED
- No tubes to replace, no heat emitted.
- Can be used with up to 8 sub-stations.
- Indoor and outdoor sub-stations.
- All stations have own volume control.
- Optional built in AM radio.



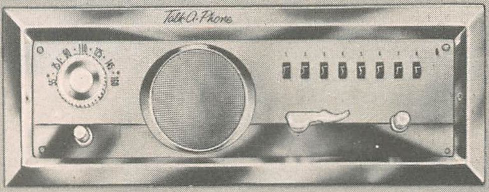
Model No. HI-4



Model No. HI-1



Model No. HI-8 and HI-9



Model No. HI-9R

This all new home intercom-radio system brings to the home owner the safety and convenience of complete intercommunication in all rooms, as well as the enjoyment of built in radio (optional) all through your house. Master stations, staff stations, indoor and outdoor substations can be combined in any desired arrangement, up to a total of 8 stations. Both masters and staffs can "call" and "converse" with any other station or stations in the system. Indoor and outdoor "subs" can be called by. and answer any master or staff station. Indoor subs can also be private or non-private at will. Outdoor "subs" are non-private. All master, staff and indoor "subs" have their own volume control. Optional built-in radio incorporates the most advanced superheterodyne circuit. Has two IF stages for sensitivity and selectivity, full A.V.C., two audio stages with push-pull output. Any 9-volt dry battery will operate this system. When battery is used, Power Supply Unit is not needed.

	CHART "A"—Rooms Originating Calls							CHART "B"—Rooms Receiving Calls							
Location	To Kitchen	To Bedroom	To Den	To Baby	To Laundry	To F. Door	To R. Door	From Kitchen	From Bedroom	From Den	From Baby	From Laundry	From F. Door	From R. Door	Then Use
Kitchen		X	X	X	X	X	X		X	X		X			HI-9 or HI-9R
Bedroom	X			X	X	X	X	X		X		X			HI-8
Den	X			X		X	X	X	X			X			HI-8
Baby								X	X	X		X			HI-2
Laundry	X			X		X									HI-8
F. Door								X	X	X		X			HI-1
R. Door								X	X	X		X			HI-1

CENTRAL MASTER STATION AND POWER SUPPLY UNIT

Only one Central Master Station (with or without radio) is used per system. Can call and talk to any other station. Listens to any sub-station or staff without adding noise to latter even during other calls. Has all transistor amplifier and operates from any 9-volt dry battery or HI-PS Power Supply Unit. Front panel: 15¼"x5¼". Plaster Ring Approx.: 14 1/16"W x 4⅜"H x 3½"D.

No. HI-9. 8 Station Master. All-transistor (3 audio stages with push-pull output). For flush wall mounting. 8-station capacity. Does not plug into electrical outlet. With plaster ring and complete instructions. Less battery. Without built in radio
95F686. NET **58.00**

SUB-STATION

No. HI-1. Outdoor Sub-Station. For front and rear doors. Complete with pushbutton bell to connect to regular house chime or buzzer, and illuminated nameplate. When caller rings, you may answer from any Master or Staff Station. For flush wall mounting; needs 2-inch square opening, 2 inches deep. With weather-resistant speaker, mounting gasket, and full instructions. Front panel: 3⅝"W x 5⅝"H. Shipping weight: 1 lb.
95F690. NET **15.95**

STAFF STATION

No. HI-8. Staff Station. Any staff can call and converse with any other station, or stations in the system. Can be mounted on wall, cabinets, etc., or can stand on tables, shelves, etc. Does not plug into electrical outlet. Has private or non-private position, as desired. For flush wall mounting only. With plaster ring and full instructions. Front panel: 15¼" x 5¼". Plaster ring approx.: 14 1/16"W x 3⅜"H x 3½"D. Shipping weight: 5 lbs.
95F689. NET **31.50**

No. HI-4. Four Station Staff Station. Same as above except connects only four stations. Front panel: 4 13/16x7 3/16". With plaster ring. Plaster ring approx.: 4⅛x6½x2". Shipping Weight, 3¾ pounds.
95F688. NET **17.50**

PLASTER RING

No. HI-PR. Plaster Ring only for Master and Staff Stations. Size: 14 1/16x4⅜x3½".
95F694. NET 1.45

No. HI-9R. 8 Station Master With Built-in Radio. All transistor (7 triodes and two diodes). Has optional built-in radio which incorporates the most advanced Super Heterodyne circuit. Has two IF stages for sensitivity and selectivity, full A.V.C., two audio stages with push pull output. Master station has 8 station capacity. Does not plug into electrical outlet. With plaster ring and full instructions. Less battery. Has built-in radio. Shipping weight: 6½ lbs.
95F687. NET **89.50**

No. HI-PS. Power Supply Unit. Only one necessary per system. Plugs into ordinary home electrical outlet of 110-120 volts, A.C., and can be placed out-of-the-way in basement, attic, closet, etc. When power supply unit is used, entire system actually consumes less electricity than even one electric clock. (Optional—not required when battery is used). Shipping weight: 2 lbs.
95F695. NET **15.95**

ACCESSORIES

No. HI-SM. Housing Assembly. Encloses any master or staff station to enable mounting on wall, cabinets, etc. Has adjustable brackets. Gray finish. Chrome mounting knobs and brackets. With instructions. Shpg. wt.: 2½ lbs.
95F692. NET 11.00

No. HI-JB8. Junction Box for connecting Masters and Staffs, up to a total of 8 stations.
95F693. NET 4.00

T-SM-L. Surface mounting assembly for HI-4 staff station. Gray finish. With instructions, knobs, brackets. Shpg. Wt., 2 lbs.
95F685. NET **4.60**

Type 4F6H. Burgess 9 volt battery. To be used when HI-PS Power supply is not employed.
49F254. NET 5.53

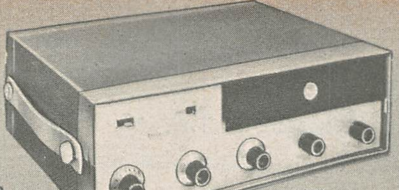
No. 6226. Cable (13-pair) for connecting all Master and Staff stations.
36F439. NET, per ft. .... .28

No. 6206. Cable (3-pair) for connecting indoor Sub-Stations.
36F447. NET, per ft. .... .085

No. 6202 Cable (1-pair) for connecting outdoor Sub-Stations, Battery or Power Supply Unit.
36F448. NET, per ft. .... .035

No. 6214. Cable (7 pair) for connecting HI-4 to master station and other stations.
36F437. NET, per ft. .... **.14**

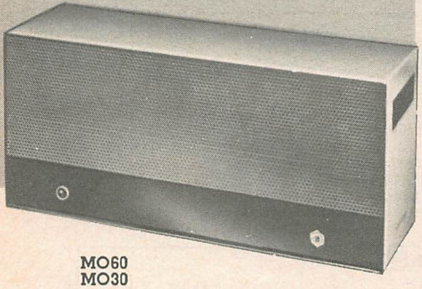
MXM


M60
M330

MU-15

MX30
MX60

BOGEN AMPLIFIERS


MO60
MO30

RP-2

MX6

MIXER-PREAMPLIFIER

MXM. Self powered, accommodates five mikes, or four mikes and a tuner or phonograph. Each channel is regulated by a separate gain control. New, variable level markers permit instant resetting of controls to previously determined levels. Specs: Output: 30 mw at less than 2% distortion, 6 mw at less than 0.5% distortion. Peak output: 45 mw. Controls: gain, speech filter, mike-tuner-phono, bass, treble, on-off-master gain. Freq. response: ±2db 20-20000 cps. Hum: 60 db below rated output. 110-120V, 50-60 cps AC. Size: 5⅜x16¼x13". Shpg. wt. 21 lbs.
96F820. NET.................................. **147.75**

"DELUXE" 30 & 60 WATT AMPLIFIERS

Features master gain control, built in remote gain control circuit, four microphone channels (one converts to phono), exclusive variable level markers. Black and gray styling with leather carrying handle. Controls: Gain, Mike-Phono Switch, Speech Filters, On-Off/Treble, Bass, master gain. Response: ±2db, 35-20000 cps. Distortion: les than 2%. Hum: —60db. 110-120V, 50-60 cps. AC.

MX60. 60 Watt. Output Imp.: 4, 8, 16, and 83 ohms, balanced 25V line, 70V line. Tubes: 3—GZ34, 2—7027A, 4—12AX7, 1—7247. Size: 16¼x13x5⅜". Shpg. wt., 37 lbs.
96F595. NET.................................. 177.00

MX30. 30 Watt. Output Imp: 4, 8, 16, and 163 ohms, balanced 25V line, 70V line. Tubes: 1—GZ34, 2—6L6GC, 4—12AX7, 1—7247. Size: 16¼x13x5⅜". Shpg. wt., 31 lbs.
96F570. NET.................................. 138.75

● *NEW* BOGEN MU-15 AMPLIFIER

The economy 15 watt amplifier with separate bass and treble control, constant voltage output taps, sockets for plug in, low impedance transformers, two microphone channels, and one phono channel. Master volume control which allows presetting of the individual channel gain controls to a preset volume, using master gain control to lower and increase the overall volume. Power output: 15 watts—2%. Peak power: 25 watts. Freq. resp. 20 to 20,000±2db. Hum and Noise: Micro. —60db; aux. —80. Output Imp. 4, 8, 16 ohms. 105-125 VAC, 50-60 cycles, 80 watts. Gray case, 15¾"Wx 10"Dx6¾"H. Shpg. wt., 16 lbs.
96F810. NET.................................. **83.95**

"SUPERB" 30 & 60 WATT AMPLIFIERS

Feature exclusive variable level markers, three microphone channels (one converts to phono), speech filters. Black and gray case with leather handle. Controls: 3 gain, mike-phono switch, speech filter, on-off/treble, bass. Response: ±2db 35-20000 cps. Distortion less than 2%. Hum: —60db. 110-120V 50-60 cps AC.

M60. 60 Watt. Output Imp: 4, 8, 16, and 83 ohms, balanced 25V line, 70V line. Tubes: 3—GZ34, 2—7027A, 3—12AX7, 1—7247. Size: 16¼x13x5⅜". Shpg. wt. 45 lbs.
96F807. NET.................................. **141.75**

M330. 30 Watt. Output Imp: 4, 8, 16, and 163 ohms, balanced 25V line, 70V line. Tubes: 1—GZ34, 2—6L6GC, 3—12AX7, 1—7247. Size: 14½x13x5⅜". Shpg. wt. 40 lbs.
96F804. NET.................................. **116.25**

BOOSTER AMPLIFIERS

Ideal for sound systems in industrial plants, airports, stadia, shipyards, wherever undistorted high power is required. Exceptionally wide range frequency response characteristics. An input signal of just 2 volts or less will drive any of the boosters to rated output.

MO60. 60 Watt. Output: 60 watts at less than 2% distortion. Power consumption: 260 watts. Response: ±2db, 35-20000 cps. Hum: —80db. Output: 4, 8, 16, 82 ohms, balanced 25V line, 70V line. Tubes: 3—GZ34, 2—7027A, 1—12AX7, 1—6C4. Size: 17¼x6½x7¾". Shpg. wt. 23 lbs.
96F822. NET.................................. **103.50**

MO100. 100 Watt. Power output: 100 watts at les than 5% distortion. Power consumption: 275 watts. Freq. Response: ±2db, 50-50,000 cps. Hum: —80db. Output Imp: 1.6, 6.25, and 49 ohms, balanced 25V line, 70V, 115V. Tubes: 2—GZ34, 1—EZ81, 2—6550, 1—6C4, 1—12AX7. Size: 17¼x9x 7¾". Shpg. wt., 35 lbs.
96F823. NET.................................. **129.45**

MO30. 30 Watt. Output: 30 watts at less than 2% distortion. Power consumption: 150 watts. Response: ±2db, 35-20000 cps. Hum: —80db. Output: 4, 8, 16, and 163 ohms balance 25V line, 70V line. Tubes: 1—GZ34, 2—6L6GC, 1—12AX7, 1—6C4. Size: 17¼x6½x7¾". Shpg. wt. 21 lbs.
96F821. NET.................................. **74.95**

LOW-NOISE PREAMP

Model RP-2. Designed for use at remote pickup points. Contains separate input channels for one microphone and one phonograph. Separate volume controls for each channel permit mixing of inputs. 4 tubes. 600-10,000 output impedance. 11x 5¼x7⅜". Shpg. wt., 9 lbs.
96F599. NET.................................. **57.00**

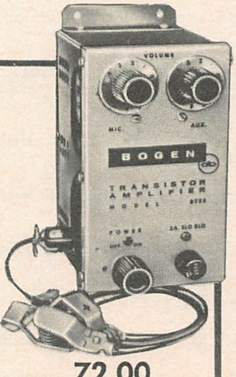
Model CAGVU2. Cage with meter.
96F600. NET.................................. 23.25

SELF POWERED MIXER

Model MX6. 6 high impedance inputs. 4 mike and 2 radio-phono, any 4 may be used simultaneously. Cathode follower output permits separation from amp up of 400ft. 50-15,000 cycles ±2db. Add—Hum: —70db. Gain: mike 59 db, phono 30 db. Size. 8x5¼x4¾". Shpg. wt, 6 lbs.
96F700. NET.................................. **40.50**

TRANSISTOR AMPLIFIER

BT-25. Fully transistorized 25 watt Public Address amplifier. Takes microphone plus record player, tuner, or tape deck. Less than 10% distortion at full output. Power consumption 85% lower than tube amplifiers. For 12 VDC, 3 amps at full output. 3¾x4⅜x6⅝". Shpg. wt. 5 lbs.
96F809. NET.................................. **72.00**



PLUG IN TRANSFORMERS

Bogen microphone and line transformers have been especially designed for plug in use with Bogen amplifiers.

Model T155 (200 ohms). **96F547**.................. 9.40
Model T156 (500 ohms). **96F548**.................. 12.75
Model T157 (50 ohms). **96F549**.................. 11.25

VP20

VP40

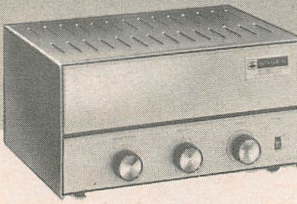
BOGEN SOUND EQUIPMENT

MODEL VP20—20 WATT

Completes 20-watt peak Hi-Fi phonograph and amplifier. Inputs for two microphones enable the VP20 to serve as a portable 20-watt PA system. Also features radio tuner input; tape and monitor outputs; two speakers, lock-in type output sockets; illuminated chrome panel and calibrated control knobs w/self contained speaker in lid. 16½x15¾x12¼". Wt., 40 lbs.
73F623. NET.................................... **140.90**

MODEL VP40—40 WATT

Entire 40-watt peak hi fidelity phonograph and amplifier. Inputs for two high impedance microphones enable the VP40 to serve as a 40-watt PA system. Complete with radio tuner input; tape and monitor outputs; two speakers, lock-in type output sockets; speech filter; illuminated chrome panel and calibrated control knobs. Transcription player and electronics housed in portable case. Two 12" speakers (with two 25 foot cables) are mounted in matching, portable "break-a-part" case. Size: 18¼x16½x18½". Shpg. wt., 55 lbs.
96F797. NET.................................... **204.95**


CHB10

AMPLIFIERS

● *NEW* MODEL CHB10—10 WATT

Economy 10-watt amplifier that provides rugged dependability in all low-power applications . . . ideal for wired background music. Frequency response 40-12,000 cps ± 2db. Sensitivity: mike: 6mv.; phonograph: 0.2 volts. Tubes: (3) 1-12AX7/-ECC83, 1-7868, 1-6V4/E280. Power consumption: 50 watts, 105-125 VAC, 50-60 cycles. Gain: mike: 110 db; phonograph: 90 db. Tube control action: treble: (10kc) —24 db. Output impedance: 4, 8 and 16 ohms. 25 volt line (62 ohm). 1 speaker socket and screw terminals. Controls: mike vol., phono vol., treble, power switch. Size: 5¾"Hx11¼"Wx8¼"L. Complete with enclosure. Shpg. wt., 12 lbs.
96F550. NET.................................... **38.85**

● *NEW* MODEL CHB14—14 WATT

Versatile 14-watt power output @ 5% distortion amplifier with one microphone (high impedance) and 2 auxiliary inputs (high impedance, high level). Sensitivity: microphone—4mv.; auxiliary—0.4 volts. Tubes: (4) 1-6AU6, 1-6V4, 2-ECL86. Power consumption: 70 watts, 105-125 VAC, 50-60 cycles. Gain: microphone—120db; auxiliary —95db. Output impedance: 4, 8 and 16 ohms. 25 volt line (45 ohm). 1 speaker socket and screw terminals. Controls: Microphone volume, fader for 2 aux. inputs, volume master, bass switch, treble switch, power switch. Size: 6¾"Hx15¾"W.x10"L. Complete with enclosure. Shipping weight 15 lbs.
96F551. NET.................................... **45.00**

CHB14

● *NEW* MODEL CHB35—35 WATT

Dependable 35-watt power output @ 5% distortion amplifier. Freq. Resp.: 20-20,000 ±2db. Inputs: 2 microphones (high impedance), 1 magnetic phono cartridge, 2 auxiliary (high impedance, high level). Sensitivity: mike—4mv.; aux.—0.2 volts; mag. phono cartridge—12mv. Power consumption: 125 watts, 105-125 VAC. 50-60 cycles. Tubes: (6) 1-6EU7, 2-7868, 1-12AX7. 1-6CA4, 1-6C4. Controls: mike #1 vol., mike #2 vol., fader for 2 aux. units, master volume, bass, treble, power switch, magnetic phono switch, provisions for remote control of microphones 1 and and or magnetic phono. Size: 6¾"Hx15¾"Wx10"D. Complete with enclosure. Shipping wt. 18 lbs.
96F554. NET.................................... **71.95**

● *NEW* MODEL CHB50—50 WATT

Powerful 50-watt power output @ 5% distortion amplifier. Frequency response of 20-20000 cps ± 2 db. Inputs: 2 mikes (high impedance), 1 magnetic phono cartridge, 2 auxiliary (high impedance). Sensitivity: mike—4 mv.; aux.—0.2 volts; mag. phono cartridge—12 mv. Gain—mike: 120 db; auxiliary: 95 db; magnetic phono cartridge: 110 db. Power consumption: 150 watts, 105-125VAC, 50-60 cycles. Tubes: (5) tubes and selenium rectifier—1-6EU7, 1-12AX7, 2-6L6GC, 1-6C4. Tone control action: treble: (10kc) +10db to —15db; bass: (50 cps) +11db to —10db. Size: 6¾"Hx15¾"Wx10"D. Complete with enclosure. Shipping weight 21 lbs.
96F555. NET.................................... **82.45**

CHB35-50-100

● *NEW* MODEL CHB100—100 WATT

Heavy duty 100 watt amplifier. Power @ 5% distortion. Frequency response: 20-20,000 cps ±2db. Inputs: 2 microphones (high impedance), 1 magnetic phono cartridge, 2 auxiliary (high impedance). Power consumption 300 watts, 105-125VAC, 50-60 cycles. Tubes: (7) tubes and selenium rectifier—1-6EU7, 1-12AX7, 4-7868, 1-6C4. Sensitivity: mike: 5mv.; aux.: .3 volts; mag. phono cartridge: 15mv. Gain: mike: 125 db; aux.: 100 db; magnetic phono cartridge: 115 db. Tone control action: treble: (10kc) +12db to —15db; bass: (50 cps) +14db to —9db. Size: 6¾"Hx15¾"Wx10"D. Shipping weight 26 lbs.
96F556. NET.................................... **112.45**

WALL MOUNTING KIT

Model LWM. Keeps your equipment ready when you need it, yet safely, neatly out of the way. For use with M, MX and MXM. Complete with all hardware, mounting template and instructions.
96F536. NET.................................... **11.25**

CONTROL GUARD LOCKING PLATE

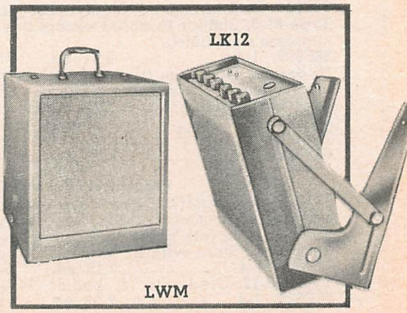
Model LK-1. For M330 amplifier.
96F537. NET.................................... **7.90**

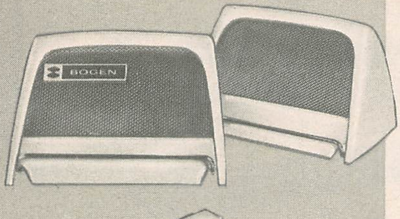
Model LK-2. Locking Plate. For MX60, MX30, M60 and MXM amplifiers.
96F538. NET.................................... **8.25**

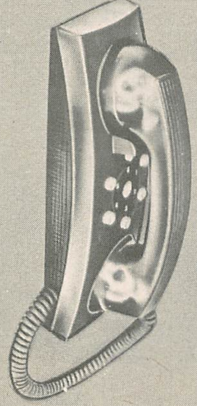
MIKE CONNECTORS

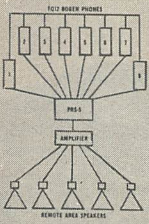
Broadcast Type (Cannon XL Series) for the Bogen M, MX Amplifiers and BT-25 Mobile Amp.
39F480. NET.................................... **1.19**

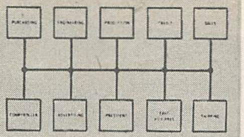
Screw Type Connector. For Challenger Lines amplifiers and MX6 Pre-amp.
39F000. NET.................................... **.46**

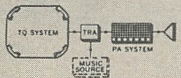












BOGEN INTERCOM AND PHONE SYSTEMS

"TWIN-COM" 2 STATION TRANSISTORIZED INTERCOM

Model TIA-2 AC Powered. All transistor intercom. Eliminates tube warm-up, on-off switch and high temperature developed by tubes. Operates on 117VAC, 60 cycles. Remote station has lock-on for monitoring, yet master can talk to remote station at all times. Operates efficiently on cables considerably longer than the 50 feet supplied. Dove grey cabinet. Size 3½"x5⅝"x 3⅝". Shpg. wt., 3 lbs.
96F762. NET.................................... **32.95**
Model TIB-2. As above but battery powered.
96F761. NET.................................... **29.95**

TQ PHONES

Provides simple, push-button inter-communication—ideal for office, plant, store or home. To make a call, simply lift receiver and press the button(s) of the station(s) you wish to reach. A buzzer sounds at the station called. When the receiver is lifted you are in communication—by-passing the switchboard. TQ phones feature selective ringing with a common talk line. Wiring requirements: The total number of unshielded conductors common to all TQ Phones is 3 more than the total number of phones in the system. No. 20 AWG conductors will provide optimum operation over distances of 500 feet between power supply and farthest TQ phone. Handsomely styled in grey plastic, and may be used on desk, counter, or wall-mounted. Handset with base is 9½x3¼x3¼". Comes supplied with four-foot snarlproof cord. Shpg. wt., 7 lbs.

TQ-1. Phones for 2 stations.
96F774. NET Per Pair.................................... **38.60**

TQ-6. Phones for up to 7 stations.
96F775. NET Each.................................... **20.95**

TQ-12. Phones for up to 13 sta.
96F776. NET Each.................................... **25.70**

POWER SUPPLY MODEL PRS-1

Services all of the above TQ systems. May be plugged into any standard electrical outlet and connected to any of the junction boxes in the system. (One junction box is provided as part of each complete handset.) Power drain is negligible when the system is inactive. Shpg. wt., 4 lbs.
96F777. NET.................................... **22.50**

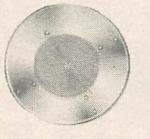
PRS-5 MULTI-MIX POWER ADAPTER

Makes it possible to combine TQ12 or TQ6 with up to 5 remote area loudspeakers and a PA amp. to provide: (1) telephone intercommunication between phones, (2) intercommunication between any phone and any remote area loudspeaker, which are "non private" eliminating talk back switches, (3) simultaneous paging from any phone to all remote area loudspeaker. It also serves as a power supply for TQ phones. Includes one relay, with provisions for adding up to 4 plug-in relays (one required for each remote area speaker in system.) 117 VAC. Size: 11"x7"x6". Shpg. wt., 8 lbs.
96F778. NET.................................... **88.42**

Model KRP14D-12VDC. Additional plug-in relays for PRS-5. Shpg. wt., 1 lb.
24F1229. NET.................................... **7.45**

TRA PHONE PAGE ADAPTER

Allows paging from series TQ phones. Simply add the TRA Adapter (see diagram) between any phone and your PA system. It is then wired to the system as if it were another TQ phone. For plant wide paging, just press the station reserved for "page." The message is then transmitted through the PA system. It can be used with any PA system and does not need a separate power supply. Volume control permits separate levels for paging and music. Music automatically stops during paging announcements. Size: 6"x4"x1¾". Shpg. wt., 3 lbs.
96F787. NET.................................... **31.65**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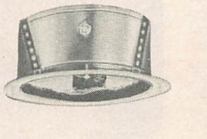
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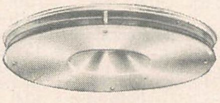
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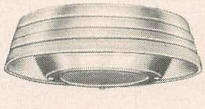
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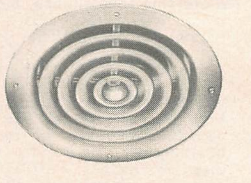

67-8

SOUNDOLIER BAFFLES AND ENCLOSURES

RECESSED TRIM RING BAFFLES

Type 51-8. Steel with a hard baked white finish. For 8" speakers. Mtg. hdw. supplied. Size: 12¾" Dia. Wt. 5 lbs./pkg.
86F628. Sold in pkgs. of 5 only. **NET per pkg**.................................... 8.95
Type 61-8. Similar to above except has highly polished simulated stainless steel finish.
86F629. 1-4.................... 3.11 **ea.** 5-19.................... 2.80 **ea.**
60 Series. Aluminum trim ring with a satin brushed finish. Simple lines blend well with the modern architecture.
Type 60-8. For 8" speaker. 12¾" dia.
86F620. 1-4.................... 3.33 **ea.** 5-19.................... 3.00 **ea.**
Type 60-12. For 12" speaker. 17" dia.
86F621. 1-4.................... 4.56 **ea.** 5-19.................... 4.10 **ea.**

PROTECTIVE ENCLOSURES

95 Series. Cylindrical protective enclosures designed for new or existing construction installations. Heavy gauge steel, undercoated with patched jute lining to eliminate resonance.
Type 95-8. Used with 8" baffles. 9⅞" dia., 4¼" high. Wt. 2 lbs.
86F622. 1-4.................... 5.12 **ea.** 5-19.................... 4.61 **ea.**
Type 95-12. Used with 12" baffles. 14⅝" dia., 7" high. Wt. 2 lbs.
86F623. 1-4.................... 7.38 **ea.** 5-19.................... 6.64 **ea.**

WIDE ANGLE SURFACE CEILING BAFFLES

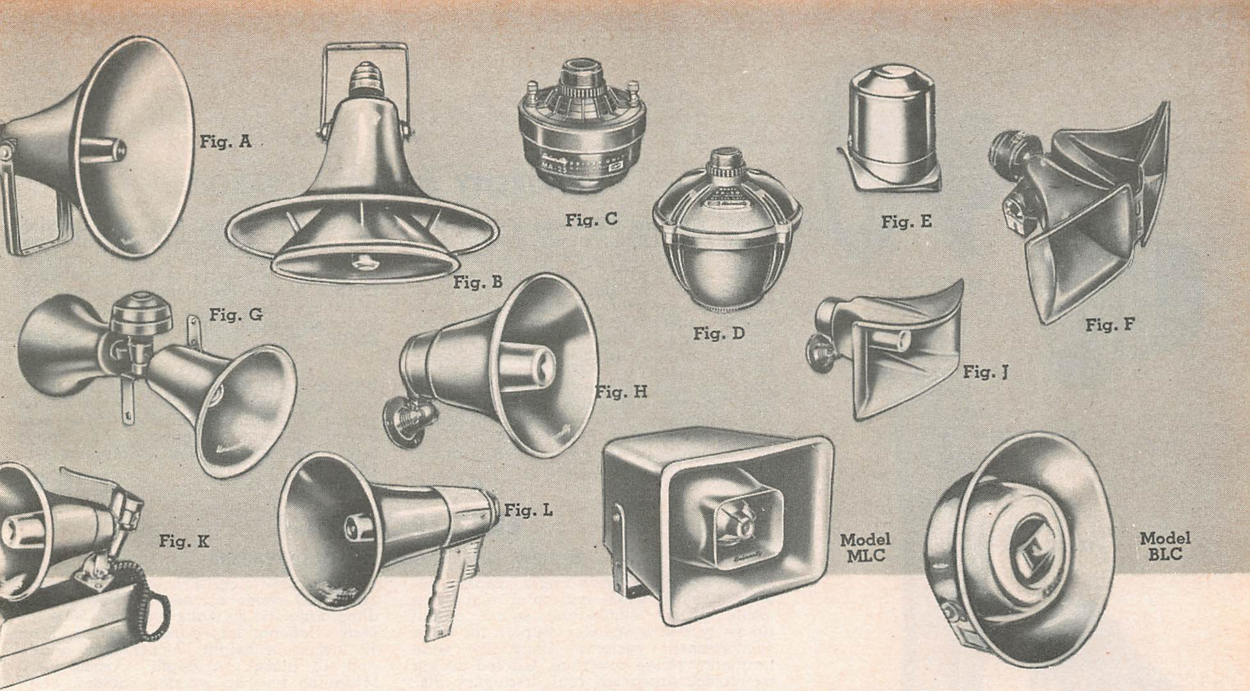
210 Series. Includes acoustical horn to radiate sound energy from the rear of loudspeaker. Horn throat provides phase inverter for extended bass resp. Outer enclosure is finished in flat polar white; inner in brushed satin aluminum. Size: 210-8; 14⅛" dia. x 4¼" H. 210-12: 18¼" dia. x 6½" H. Can be mtd. to std. 4" junction box or directly to ceiling. 2 lbs.
86F625. Type 210-8. For 8" speakers. **1-4, 13.20 ea.**.... **5-19, 11.88 ea.**
86F626. Type 210-12. For 12" speakers. **1-4. 16.20 ea. 5-19, 14.58 ea.**

LOUVERED RECESSED CEILING BAFFLES

Type 67-8. Similar in style to air diffuser. Designed from heavy gauge steel and completely welded. Aluminum painted finish. Accommodates an 8" speaker. 12" dia. Wt. 1 lb.
86F627. 1-4.................... 4.70 **ea.** 5-19.................... 4.23 **ea.**

LOW CEILING RECESSED BAFFLES

Type 68-8. Low ceiling recessed baffle for use with 8" speakers. Satin brushed aluminum finish. Defractor eliminates beaming when used in low ceiling applications. 12¾" dia. x 1$\frac{5}{16}$". Less speaker. Shpg. wt. 1 lb.
86F624. 1-4.................... 7.29 **ea.** 5-19.................... 6.56 **ea.**



UNIVERSITY TRUMPETS, DRIVERS, ACCESSORIES

Fig. A. Reflex Trumpets. Weatherproof. Use with driver units below. Model PH for general use, SMH for voice only. With "U" mtg. bracket.

Stock No.	Mfr's. Type	Low Cutoff	Bell Dia.	Horn Length	Wt. Lbs.	NET EACH
88F102	PH	150 cps	20⅜"	15¾"	11¾	**20.48**
88F103	SMH	200 cps	16¼"	12"	8	**17.33**

*Yields 120-240 W. with 4 drivers ID-30, ID-40, ID-40T, or ID-60. Response 120 to 12,000 cycles.

Fig. B. Radial Reflex Projectors. Uniform 360° horizontal dispersion in all directions. Excellent for industrial applications and reproduction of chime and liturgical music in church towers. 2YC connector permits use of 2 drivers with single horn, for double power output.

Stock No.	Mfr's. Type	Low Cutoff	Bell Dia.	Overall Height	Wt. Lbs.	NET EACH
88F112	RLH	120 cps	28⅛"	18½"	25	**34.40**

Model 2YC Connector. Permits use of 2 drivers on a single trumpet or radial projector for double power output.
88F107. NET **7.92**

Driver Units. Breakdown-proof, hermetically sealed drivers with W-shaped Permanent Magnets of exceptional high efficiency. For reflex trumpets and radial reflex projectors. All units have 16 ohm imp. except ID-40T and ID-60T which have multi-impedance line matching transformers built-in. ID-40T matches 45/-122/250/500/1000/2000 ohms. ID-60T matches 16/80/165/250/500/-1000/2000 ohms. 70 V. line power taps: ID-40T; 40/20/10/5/2.5 watts. ID-60T; 60/30/20/10/5/2.5 watts.

Stock No.	Type	Fig.	Range Cps.	Power Rating Watts	In. Dia.	Wt. Lbs.	Net Each
88F141	ID-20	C	120-6500	20	3½	2½	**15.00**
88F142	ID-30	C	85-7500	30	4⅛	3	**18.90**
88F143	ID-40	C	80-12000	40	4½	4¼	**23.70**
88F144	ID-40T	C	80-12000	40	5	5¼	**31.65**
88F145	ID-60	C	70-12000	60	4 11/16	5¼	**31.65**
88F146	ID-60T	D	70-12000	60	6¾	6½	**37.95**

Fig. E. CTR Weatherproof Housing. For use with trumpets and paging spkrs. Takes transformers with mtg. hole distances from 1½" to 2⅞". Shpg. wt., 2 lbs.
88F126. NET **5.28**

Model 5433 Transformer. 30 watt line matching transformer. Wide selection of impedances and constant voltage power taps.
88F128. NET **4.62**

Model 5434 Transformer. 15 watt line matching. ¾ lb.
88F129. NET **3.96**

Fig. F. Cobreflex. For fixed or mobile applications requiring coverage of areas having greater width than height. "Dual Exponential Flare" design. Sound distribution—120° horizontal and 60° vertical. Air column length—2½'. Bell mouth size—18½x9¼". Depth (less driver)—10¼". Takes any University driver unit. Shipping wt., 10¼ lbs. Complete with "U" mtg. bracket.
84F112. NET **24.15**

Fig. G. Model 2WP. Bi-Directional Paging Projector. Low-cost coverage of two opposite areas with one driver, e.g., ID-20 ID-30, ID-40, ID-40T, ID-60. Adjustable mtg. bracket. Each horn: 8½" diam., 20½" long, 120° dispersion. 350-cps cut-off. 4 lbs.
88F139. NET **17.64**

INDUSTRIAL PAGING SYSTEMS

Fig. H. Model IB-A8. 90 degrees dispersion angle. Range, 250-13,000 cycles. Power, 25 watts. Input impedance, 8 ohms. Size, 10¼" bell dia. x 9" long. Has adj. wall mtg. bracket. 4 lbs.
88F110. NET **20.70**

Fig. H. Model MIL-A8. Reflex type for low-power use. Screw-in 7.5 watt driver unit. High efficiency at speech frequencies. Range, 350-13,000 cycles. Dispersion angle, 120 degrees. VC imp., 8 ohms. 7 13/16" dia. x 6⅞". With bracket. 3¼ lbs.
88F111. NET **17.01**

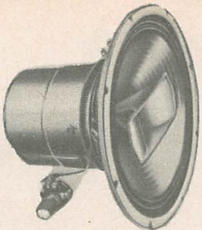
Fig. J. Model CIB-A8. Wide angle mid-range unit for 3-way systems or paging, mobile and intercom use. Omni-swivel bracket. 25 watt 8 ohms. 250 to 13,000 cycles. Dispersion 120° horiz., 60° vert. 7⅜x14x12". 5½ lbs.
84F135. NET **27.60**

Fig. K. Model PP-1. Power-Page. A portable, self-contained paging system. Battery operated. Easily hand held. Wt. 13 lbs. with batteries. Unit's high output weather-proof trumpet speaker has clip-on mike. 11' of mike cable. Press-to-talk on-off switch. No warm-up needed. Uses 6-volt std. lantern batteries. Less batteries. Shpg. wt., 8 lbs.
88F132. NET **62.70**
49F264. Battery, Burgess, F4H, 3 required. **Each** .... **.87**

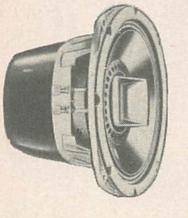
Fig. L. PP-2 Pistol Grip Power-Page. Solves portable paging problems in a convenient manner. Microphone mounted on tapered end of metal horn. Operates on 6 penlight batteries in handle. A built-in jack allows unit to be used with any 6 or 12 volt system on boats or cars for battery economy. Only uses current when switch is pressed. 8" bell dia. Less batteries. 5¼ lbs.
88F133. NET **49.50**

Model MLC Outdoor Speaker. Voice frequency reproducing horns. Power 15 watts without distortion. Response 150-15,000 cycles. 8 ohm VC. True dual range, with built-in 2000 cps electrical crossover. Dispersion 120°. Fiberglas reinforced polyester housing with U mtg. bracket. Size: 12¾"Wx9⅛"Hx10⅝"D. 10 lbs.
88F135. NET **34.50**

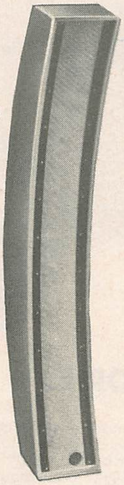
Model BLC Coax System. Indoor-outdoor. Power: 25 watts without distortion. Response: 70-15,000 cycles. 8 ohm voice coil. Built-in 2500 cycle crossover. Dispersion: 120°. Size: 22¾" dia., 9¼" deep. All metal construction. Shipping wt., 21 lbs.
84F126. NET **53.70**



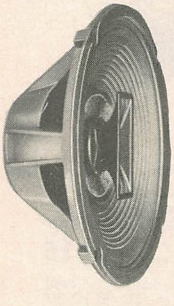
Model 6201



Model 308



Model LR4



Model LT12

Model PA15

UNIVERSITY QUALITY SPEAKERS

Series '200'. No. 308 3-way 8" Diffaxial. Features beautiful, sturdy die-cast basket and University's exclusive true-axial construction with "reciprocating-flare" compression tweeter projected through center of woofer. Exceptionally rigid woofer cone has 2 high-compliance cloth suspensions — inner and outer. Crosses over electrically at 5000 cps. Mid-range is reproduced by deluxe multi-element Diffusicone section with 1000 cps. crossover. Woofer has extra large voice coil for enhanced bass. Heavy all-Alnico 5 Gold Dot magnet. Response 30 to 17,000 cps. 35 watts power capacity. 8-16 ohms. 5½" deep. Shpg. wt., 5 lbs.
84F123. NET **41.16**

Series '200'. Model 6201 12" Coaxial. 12" coaxial system, complete with horn type "tweeter". Built-in inductance/capacitance 2500 cycle crossover network. Output 35 w. Frequency response 28-18,500 cps. Imped. 8-16 ohms. Depth 8⅜". Shipping weight, 9 lbs., 8 oz.
84F105. NET **56.60**

Diffusicone-12 2-way 12" Speaker. Diffaxial. Has 24 oz. heavy W-shaped gold dot Alnico V Magnet. Range 28-15,000 cps. Power: 30 watt continuous. Impedance 8-16 ohms. Depth, 4½". Shipping wt., 8 lbs., 10 oz.
84F106. NET **38.96**

ELECTRO-VOICE

● *NEW* LINE RADIATOR LOUDSPEAKERS

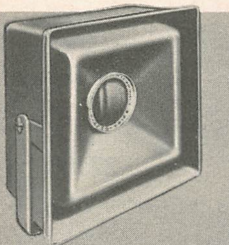
Model LR4. New wide angle speaker design permits wide horizontal dispersion while almost eliminating sound output above or below speaker. Superb for voice reinforcement systems. Unusually wide frequency range coverage. Curved design overcomes unwanted high frequency dispersion at ends, eliminating echo and feedback. Contains twelve 4 inch cone speakers, 160° horizontal dispersion; 60° vertical dispersion. Frequency Response: 200-10,000 cycles per second. Power Handling capacity: 25 watts program, 50 watts peak. Nominal Impedance: 8 ohms. Size: 49 inches in height, 7 inches in width, and 13 inches in depth. Comes in a Mesa tan finished wooden cabinet. Shipping weight. 21 lbs.
86F330. NET **67.62**

WOLVERINE MODEL LT12—12 INCH LOUDSPEAKER

High quality, three way speaker priced for the budget minded. Combines the design features of the Wolverine full range speakers, plus deep dish cone and Hi-Fi tweeter. Frequency response 40 to 18,000 cps. Power handling capacity 20 watts programming. Free space resonance 65 cps. EIA sensitivity 45 dbs. Impedance 8 ohms. Mechanical crossover 2,000 cps; electrical crossover 3,500 cps. Built-in-crossover and three position tonal balance switch. 12⅛" diameter. 5½" deep. Shpg. wt. 9 lbs.
86F331. NET **31.36**

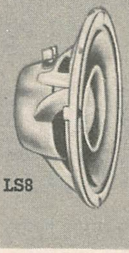
MODEL PA15 REENTRANT PROJECTOR

A compact speaker of rugged die cast construction finished in mesa tan. Smooth, rising response provides high intelligibility and efficiency. Field-replaceable driver. Universal swivel mount. Frequency response: 350 to 13,000 cps. Power handling capacity 15 watts program. Impedance 8 ohms. Dispersion 120°. Size 9"hx6"wx9½"d. Wt. 4¼ lbs.
88F172. NET **17.64**

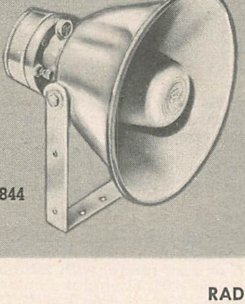


Musicaster

LS12



LS8



844

MUSICASTER

Musicaster High Quality Speaker System is a complete weatherproof high-fidelity speaker system. Speaker fully protected by rugged diecast aluminum housing. "U" type mounting bracket doubles as carrying handle. Response is 60-13,000 cps. Impedance is 8 ohms. Dispersion: 120°. Handles 30 watts. Size 21½x21½x8½". Shipping weight: 34 lbs.
88F153. NET **52.92**

MB-1 Surface Mounting Bracket for sturdy mounting flat on wall.
88F171. NET 2.65

Model 844 Paging Unit

General purpose speaker system for high intelligibility and economical use. Handles 30 watts. 250-13,000 cps. 8 ohms. Dispersion: 90°. Size 9⅞" dia.x8 3/16" deep. Shipping weight: 8½ lbs.
88F156. NET **21.46**

WOLVERINE FULL-RANGE SPEAKERS

Model LS-8 8 in. Radax construction with edge-wound VC, glass coil form and slug-type magnet, 50 to 13,000 cps. Free-space res. 75 cps. Handles 20 watts program, 40 watts peak. Power required for 100 db. 15 watts. Imp., 8 ohms. Mech. crossover 6000 cps. 8⅜" dia., 3½" deep, 7⅛" baffle opening; mounts with four ¼" holes on 7⅝" circle. Shpg. wt., 4½ lbs.
86F333. NET **19.11**

Model LS-12 12-in. Radax construction with edgewound VC, glass coil form and slug-type magnet, 40-13,000 cps. EIA sensitivity rating 43 db. Free-space res. 65 cps. 20 watts program. 40 watts peak. Power required for 100 db, 12 watts. Imp. 8 ohms. Mech. crossover 1800 cps. 12¼" dia., 3½" deep; 11" baffle opening; mounts with four ¼" holes on 11½" circle. Shpg. wt., 6 lbs.
86F334. NET **20.58**

RADAX COAXIAL SPEAKERS

Model SP8B. "Super-Eight". 8" coaxial speaker. Resonance 50-65 cps. 20 watts. Response 45-13,000 cps. 16 ohms impedance. Sensitivity 45 db. Crossover 6000 cps. 1 lb.-6 oz. Ceramic magnet. 8⅜" dia. 7" baffle opening, 4⅝" depth behind mtg. panel. Shpg. wt., 9 lbs.
86F025. NET **31.36**

Model SP12B. "Twelve". 12" coaxial speaker. Resonance 40-50 cps. 20 watts. Response 40-13,000 cps. 16 ohms impedance. Sensitivity 46 db. Crossover 4500 cps. 1 lb. 6 oz. Ceramic magnet. 12¼" over all dia. 11" baffle opening. 6" depth behind mtg. panel. 12 lbs.
86F024. NET **36.75**

Model SP15B. 15" coaxial speaker. Resonance 38 cps. 15-20 watts. Response 30-13,000 cps. 16 ohms impedance. Sensitivity 47 db. Crossover 3500 cps. 1 lb. 6 oz. Ceramic magnet. 15⅛" overall dia. 13½" baffle opening. 7⅝" depth behind mtg. panel. Shpg. wt., 15 lbs.
86F071. NET **45.08**

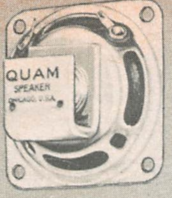


Fig. A

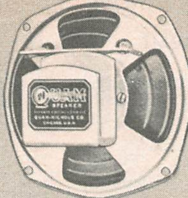


Fig. B

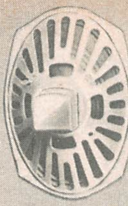


Fig. C

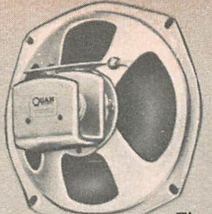


Fig. D

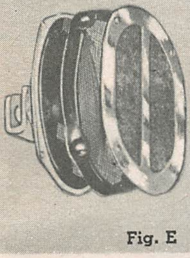


Fig. E

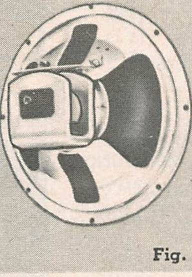


Fig. F

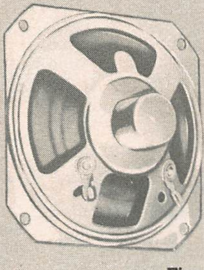


Fig. G

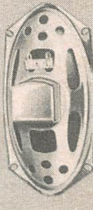


Fig. H

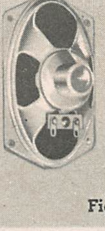


Fig. J

QUAM SPEAKERS

QUAM REPLACEMENT SPEAKERS

Ideal replacements for speakers in radios, phonos, TV, etc. All have Alnico V magnets, with weight specified in oz. All voice coils below are 3.2 ohms. Std. EIA mtgs.

Stk. No.	Type	Fig.	Size	Magnet	Watts	Wt.	NET
56F136	25A07	A	2½''	.65	1.5	¼	**2.35**
56F115	3A07*	A	3½''	.65	2.5	½	**2.35**
56F117	4A07*	A	4''	.65	3.0	½	**2.53**
56F119	4A15	A	4''	1.47	3.0	¾	**2.97**
56F142	46A07*	....	4x6''	.65	3.5	¾	**2.79**
56F121	5A07*	B	5''	.65	3.5	¾	**2.65**
56F137	5A1	B	5''	1.00	3.5	1	**2.85**
56F123	5A15	B	5''	1.47	3.5	1	**3.09**
56F125	52A1	B	5¼''	1.00	4.0	1	**2.91**
56F138	57A1	C	5x7''	1.00	5.0	1	**3.38**
56F139	6A21	D	6½''	2.15	5.0	1¼	**3.79**
56F126	6A1	D	6½''	1.00	5.0	1	**3.12**
56F128	6A31	D	6½''	3.16	6.0	1¾	**4.47**
56F129	69A2*	C	6x9''	1.40	8.0	1½	**4.41**
56F143	8A21	D	8''	2.15	7.0	1½	**4.56**
56F130	8A31	D	8''	3.16	9.0	2	**5.29**
56F131	69A3	C	6x9''	3.2	10.0	2	**5.41**
56F167	35A05*	J	3x5''	.55	2.0	½	**2.47**

*Very shallow construction.

QUAM EXTENDED RANGE SPEAKERS

In a properly designed baffle, Quam speakers meet the requirements of the most critical listener. Quam speakers produce rich, distortion-free lows and clean, sharp highs. Freq. responce: flat to 12,000 cps. All 10 oz. Alnico V magnets. Voice coil impedance, 8 ohms. V. C. dia 1''. 4 lbs.

Model 8A10X. 8", 10 watts. Depth 4".
84F200. NET **11.76**
84F201. Model 12A10X. 12", 15 watts. Depth 5⅞". **NET**.........**15.29**

QUAM INTERCOM SPEAKERS

Stk. No.	Type	Fig.	Size	Magnet	Watts	Wt.	NET
56F116	3A07Z45	A	3½''	.65	2.5	½	**2.50**
56F140	4A1Z45	A	4''	1.00	3.0	¾	**2.85**
56F141	5A1Z45	B	5''	1.00	3.5	1	**3.00**

NEWARK CAN SUPPLY ALL YOUR AUDIO NEEDS

● *NEW* QUAM PM REPLACEMENT SPEAKERS

Voice coil impedance 3.2 ohms ±10%. Shallow construction.

Stock No.	Fig.	Model No.	Size	Magnet Weight	Power Hndlg. Watts	Shpg. Wt. Lbs.	NET
56F144	G	3A05	3½"	.55 oz.	2	¼	**1.85**
56F145		4A05	4"	.55 oz.	2.5	¼	**1.73**
56F146	H	48A2	4x8"	1.4 oz.	4.5	1	**4.76**
56F147		5A05	5"	.55 oz.	3	½	**2.06**
56F148	C	69A1	6x9"	1.2 oz.	6	1¼	**3.53**

MINIATURE PM SPEAKERS

Designed for replacement use in transistor radios and other equipment where there is limited space. Magnet wt., .45 oz.

Stock No.	Model No.	Fig.	Size	Power Hndlg. Watts	Shpg. Wt. Lbs.	NET
56F164	22A06Z8	....	2¼''	.25	¼	**2.79**
56F165	22A06Z100	....	2¼''	.25	¼	**3.09**
56F166	27A06Z12	....	2¾''	.25	¼	**2.76**

Impedance of speakers, in ohms, indicated by digits following ''Z'' in model number.

QUAM REAR SEAT AUTO SPEAKERS

Includes speaker, flocked screen, grey metal grille, cable, fader control, and plate for under-dash mounting.

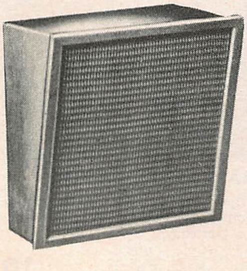
Fig. E. Deluxe Model AS-2. Full-toned 6x9" speaker with 2.15 oz. magnet and sponge rubber baffle plate gasket. 3½ lbs.
84F208. NET..**8.20**
Fig. E. Model AS-3. With husky 5x7'' speaker. 2¼ lbs.
84F210. NET..**7.03**
84F207. Model AS-1. Has 6½'' speaker. 2 lbs. **NET**..........**5.85**
84F209. Chrome Grille. For 6x9'' speaker. 8 oz. **NET**..........**1.26**

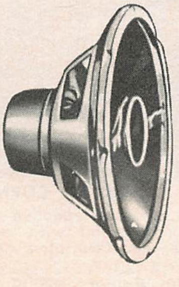
QUAM PUBLIC ADDRESS SPEAKERS

Fig. F. Sturdy PM units for voice reinforcement and music. Built to take plenty of abuse! Will handle rated power continuously. All have 8 ohm voice coils.

Stk. No.	Type	Size	Magnet	Watts	Wt.	NET
56F175	8A31PA	8''	3.16	10	2¼	**5.59**
56F176	8A4PA	8''	4.64	12	2¾	**6.47**
56F181	8A6PA	8''	6.8	12	3¼	**7.64**
56F180	12A4PA	12''	4.64	15	4	**8.38**

NEWARK SPECIALS





15". Deep rich bass response and distortion-free highs. Speaker handles 15 watts. Response as low as 35 cps. 5" tweeter reproduces highs up to 15,000 cps. Impedance: 6-8 ohms. Alnico V magnet. Shpg. wt.: 11 lbs.
83F952. NET..**13.95**

COAXIAL SPEAKER BAFFLE COMBINATIONS

Coax speakers and enclosures for your music or P.A. setup at a real saving. Blue cone woofers and tweeters with Alnico V magnets. Crossover networks housed in dust covers of speakers. 8 ohm impedance. Choice of walnut or blonde fabric.

99F500. 8" speaker with walnut baffle. Wt. 6 lbs..................**9.97**
99F501. 8" speaker with blonde baffle. Wt. 6 lbs..................**9.97**
99F502. 12" speaker with walnut baffle. Wt. 11½ lbs..................**14.62**
99F503. 12" speaker with blonde baffle. Wt. 11½ lbs..................**14.62**

COAXIAL SPEAKERS

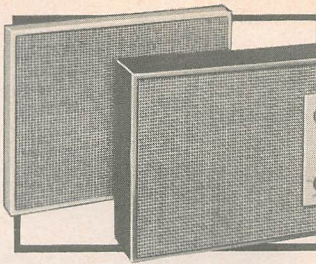
8". Response is from 50 to 15,000 cps. 3.16 oz. Alnico V magnet Impedance. 6-8 ohms. Shpg. wt.: 3½ lbs.
83F950. NET..**6.65**

12". Frequency response from 40 to 15,000 cps. Uses 3½" tweeter for highs. Impedance: 6-8 ohms. Alnico V magnet. Up to 15 watts. Shpg. wt., 7 lbs.
83F951. NET..**9.95**

SPEAKER BAFFLES

• *NEW* ARGOS MULTI-BAFFLES FOR CEILING OR WALL

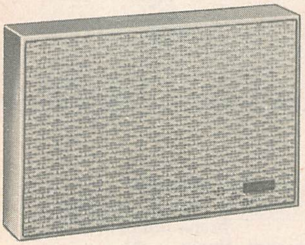
Mounting for 8" speaker.



Only 3½" deep. Mounts in minutes with speedy mounting clips, hangs like a picture. Excellent for P.A. and Music. Attractive decorator styling. MBX style flush mount. MBR series requires a 6" dia. hole in mounting surface due to the magnet on speaker extending beyond baffle back. Shpg. wt., 1 lb.

Stk. No.	Model	Finish	Net	Stk. No.	Model	Finish	Net
86F610	MBX-8	walnut	5.73	86F616	MBR-8	walnut	5.44
86F613	MBX-8	blonde	5.73	86F619	MBR-8	blonde	5.44
86F611	MBX-8S*	walnut	11.66	86F617	MBR-8S*	walnut	11.03
86F614	MBX-8S*	blonde	11.66	86F775	MBR-8S*	blonde	11.03
86F612	MBX-8SL**	walnut	14.11	86F618	MBR-8SL**	walnut	13.42
86F615	MBX-8SL**	blonde	14.11	86F776	MBR-8SL**	blonde	13.42

*S-speaker; **L-L-pad.



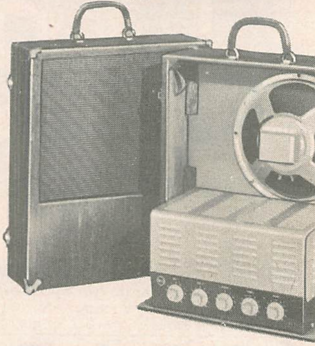
• *NEW* SPACE SAVER SPEAKERS AND BAFFLE

Type HFWB-8S. Only 3¾" thin. Hi-Fi sounding response. Superior to regular PA wall bafles. Excellent bass reproduction. Takes less space than a picture. Includes 8" woofer and 3½" tweeter speakers. Size: 18"x12"x3¾". Shpg. wt., 4½ lbs.

Walnut Finish
86F778. NET **17.59**

Birch Finish
86F779. NET 17.59

• *NEW* SC-2C SOUND CADDY SYSTEM



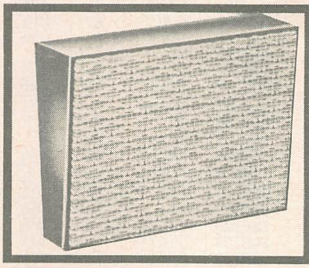
Simple function design using new ARGOS Vinyl covering. Highly portable. Has room for two 12" PA 18 watt speakers. Space below for most amplifiers. Amplifier mounting board can be removed. Heavy plywood construction, steel corner angles. SC-2C less speakers. Shpg. wt., 20 lbs.

86F599. NET......... **21.12**

NEW "THINLINE" BAFFLES WITH JENSEN SPEAKERS

Thinner and wider with the new modern look. ⅓ thinner with no sacrifice in quality! All have heavy-duty ceramic magnet speaker and are hvy. duty P.A. types except WB-108AS which has Alnico V magnet speaker and is ideal for background music. *Have built-in L pad. All are 8 ohm types. Sizes: 8"; 12x9½x4¼". Wt. 4½ lbs. 12"; 16x13¾x6¼". Wt. 8 lbs.

Stk. No.	Type	Spk. Sz.	Watts	Finish	Each
86F600	WB-108AS	8"	6	Walnut	7.01
86F601	WB-108AS	8"	6	Blonde	7.01
86F602	WB-208S	8"	15	Walnut	10.19
86F603	WB-208S	8"	15	Blonde	10.19
86F604	WB-208SL*	8"	15	Walnut	12.59
86F605	WB-208SL*	8"	15	Blonde	12.59
86F606	WB-212S	12"	18	Walnut	14.85
86F607	WB-212S	12"	18	Blonde	14.85
86F608	WB-212SL*	12"	18	Walnut	17.25
86F609	WB-212SL*	12"	18	Blonde	17.25



DWB SERIES BAFFLES

Model DWB. Complete speaker mounting hardware is included. Also "speed" clip for easy mounting and removal from walls. Heavy, select white birch hand rubbed and waxed to a furniture finish—either walnut or blonde. DWB-8A—Internal capacity 400 cu. in. 4½ lbs. DWB-12A—Internal capacity 1180 cu. in. 2¾ lbs.

Stk. No.	Model	Finish	Dia.	Size	NET
86F735	DWB-8A	Walnut	8"	9¾x10½x6½"	5.88
86F736	DWB-8A	Blonde	8"	9¾x10½x6½"	5.88
86F737	DWB-12A	Walnut	12"	13⅝x14x9⅛"	8.23
86F738	DWB-12A	Blonde	12"	13⅝x14x9⅛"	8.23

ARGOS TILTED BAFFLES

Slanting corner baffles aim sound down to avoid off-angle distortion. "Forward Front" design gives up to 22% more air volume. Exclusive "wood-grain" pyroxylin covering, plastic grille. Bass reflex, acoustic padding.

Type SCB-8D. For 8" speakers (max. depth 5½") 17¾"x15"x9". Shipping weight: 6 lbs.
86F731. Walnut, **NET**.................... **8.18**
86F732. Blonde, **NET**.................... 8.18

Type SCB-12D. For 12" speakers (max. depth 6⅛") 20¾"x20"x10½". Shipping weight: 8 lbs.
86F733. Walnut, **NET**.................... **11.02**
86F734. Blonde, **NET**.................... 11.02

ARGOS WALL SPEAKER BAFFLES

Sturdily constructed of plywood. Handsome contrasting plastic grille cloth. Specially designed pyroxylin coated fabric in walnut or blonde finish. 8", 10", and 12" models have knock out plug under covering for volume control.

Type WB-4/5C. For 4-5" Speakers 6¼"W x 6⅛"H x 4"D. 1 lb.
86F754. Walnut. **86F759.** Blonde. **NET EA.**.................... 2.89

Type WB-6C. For 6" Speakers. 7⅞"W x 8½"H x 5"D. 2 lb.
86F753. Walnut. **86F760.** Blonde. **NET EA.**.................... 3.53

Type WB-8C. For 8" Speakers 9¾"W x 10½"H x 6½"D. 3 lb.
86F750. Walnut. **86F761.** Blonde. **NET EA.**.................... 4.21

Type WB-10C. For 10" Speakers. 11⅞"W x 12⅜"H x 7¾"D. 3 lbs.
86F751. Walnut. **86F762.** Blonde. **NET EA.**.................... 5.00

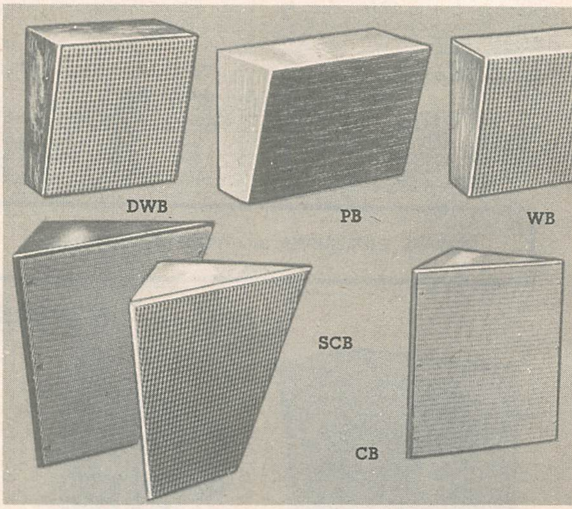
Type WB-12C. For 12" Speakers 13⅝"W x 14"H x 9⅛"D. 4 lb.
86F752. Walnut. **86F763.** Blonde. **NET EA.**.................... 5.73

"PRESTIGE" BAFFLES

"Forward Front" construction for extra efficiency. Easy knock out plug under covering for volume control. "Woodgrain" pyroxylin covering and matching grille cloth.

Type PB-8A. For 8" speakers. 14x10⅜x7". Wt. 5 lbs.
86F739. Walnut, **NET**.................... **5.73**
86F740. Blonde, **NET**.................... 5.73

Type PB-12A. For 12" speaker. 18¼x13¾x9". Wt. 7 lbs.
86F741. Walnut, **NET**.................... **8.08**
86F742. Blonde, **NET**.................... 8.08



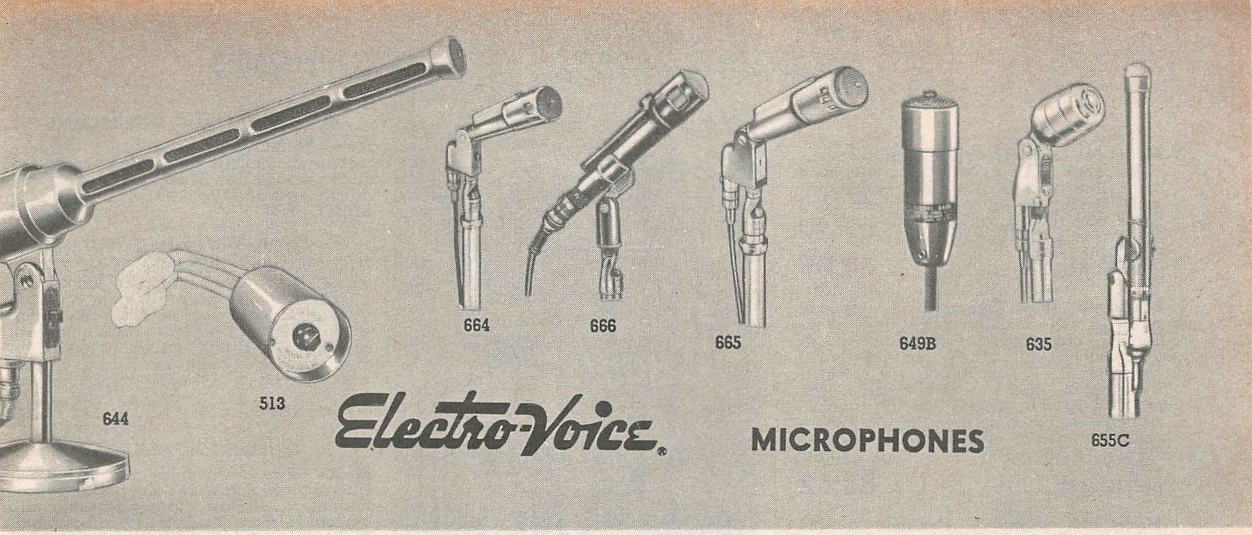
ARGOS CORNER BASS REFLEX BAFFLES

Provide more effective radiation of sound. Constructed of heavy plywood with reinforcing blocks and covered with leatherette. Bass reflex acoustic padding.

Type CB-12D. For 12" speaker. 17¾x20x9". 9 lbs.
86F713. Walnut. **86F716.** Blonde. **NET EACH**.................... **10.58**

Type CB-8D. For 8" speaker. 12¼x14x6½". 5 lbs.
86F712. Walnut. **86F715.** Blonde. **NET EACH**.................... **7.35**

Note: All Argos Baffles come complete with spk. mtg. hdw. & speedy mtg. clip.



Electro-Voice MICROPHONES

Model 644. Sound Spot. A combination of cardioid and distributed front opening extends the frontal pick-up on the microphone axis. Above 700 cps cancellation of sound at rear and sides exceeds 20db providing rejection of random noise, reverberation, and feedback. Front acceptance angle at high freq. is 45° each side of axis. This allows isolation of individual performers. Response: 40-12,000 cps. Output level: High imped; —53 db, EIA sensitivity rating—149 db. 150 ohm imped.—53db; EIA rating—147db. Employs Alnico V and Armco magnetic iron in a non-welded circuit. Has pressure cast zinc and brass case with satin chrome finish. Has on-off switch and Amphenol MC4M connector. ⅝" stand coupler. Size 16" long, max. dia. 2 5/16". With 18' of cable. 4 lbs.
61F567. NET **64.68**

Model 666 Super Cardioid. Uses the variable D principle. High discrimination against sounds from back hemisphere. Highly resistant to mechanical shock. Designed for operation on boom, stand, or in the hand. Uses only one moving element with exclusive, rugged Acoustalloy diaphragm. Built-in Cannon UA-3 connector. Impedance changed on internal terminal board. Auto. effects uniorm discrimination against back sounds by an avg. of 24 db, no less than 14 db at any freq. Resp; 30-16,000 cps. Output: —58 db. Imped., 50, 150 & 250 ohms. Permits close talking with no bass accentuation. Affords another octave of uniform HF response over that of conventional cardioids. Aluminum case in TV gray. Clamp-on stand mnt. 20' cable included. 7½x1¾". 1 lb.
61F540. NET **149.94**

Model 664 Cardioid Dynamic. Designed for PA cardioid pattern at all frequencies. Response: 40-15,000 cps. High Z or Low Z. Available by moving one wire at cable connector. Output —55db. On-Off switch. 18' cable. Size: 7 3/16" dia.
61F546. NET **49.98**

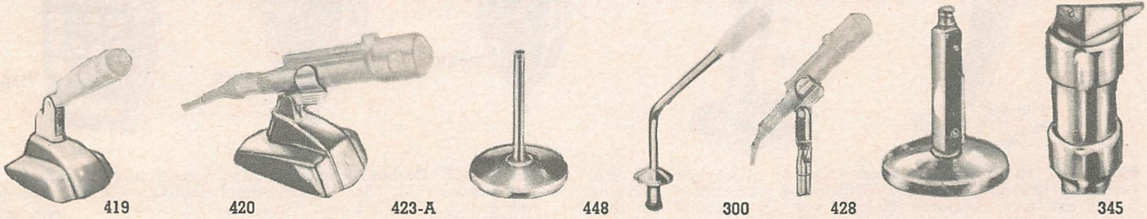
Model 665 Cardioid. Like Model 666, but for less exacting use. Uniform rsp. 50-14,000 cps. Imped. 50 and 250 ohms. Recessed switch in stud permits quick selection of either impedance. Pressure-cast zinc case. Non-reflecting gray finish. Dia., 1⅞", lgth, 7 3/16". Supplied with 18' cable. Wt., 1 lb., 10 oz.
61F547. NET **88.20**

Model 513. Cutoff Filter. Provides extremely sharp cutoff at low frequencies beginning at 100 cps. Attenuation over 30 db at 60 cps. Eliminates low frequency reverberation and minimizes acoustic feedback. AC hum, air conditioning, fluorescent light and other similar noises need no longer be a problem. A switch provides impedance selection. Size: 2½" Dia.; 5⅝" long. Shpg. wt., 1 lb. 10 oz.
61F577. NET **41.16**

Model 649B Miniature Lavalier. Smallest dynamic lavalier weighs only 1½ oz. 2¼" long x ¾" diameter. Ideal for programming where unobtrusive or concealed microphone placement is desirable. Response from 60-12,000 cps. Output —60 db. Non-directional. Matches all low impedance. With 30 feet of cable. Aluminum case finished in TV gray. With neck cord assembly and belt clip. Shpg. wt. 8 oz.
61F553. NET **61.74**

MODEL 655C MICROPHONE. Lightweight, "Slim-trim", dynamic mike designed for highest quality FM, AM, and TV broadcasting. Mounts on floor or desk stand, on a boom, or can be carried in the hand. Tilts thru 90° angle. Pop-proof wire mesh grille minimizes wind and breath blasts. Features the Electro-Voice Acoustalloy diaphram which permits smooth response over a wide frequency range and withstands high humidity, temp. extremes, corrosion, and severe mech. shocks. Audio resp. 40 to 20,000 cps. Output-55db. Omni-directional pattern. 50, 150, and 250 ohm impedance easily changed at internal term. board. ½" pipe threads; ⅝"-.27 adapter furnished. 1" dia. x 10½". 20 ft. cable and UA-3 connector included Shpg. wt. 1¼ lbs.
61F500. NET **117.60**

Model 635. Microphone. Frequency response: uniform from 60 to 13,000 cps. Impedance: recessed switch in microphone stud permits quick, easy selection of 50 or 250 ohms. Line balanced to ground and phased. Output level: 50-ohms impedance: —55db; EIA sensitivity rating, —148 db. 250-ohms impedance: —55db; EIA sensitivity rating, —147 db. Employs Alnico V and Armco magnetic iron in a non-welded circuit. Pressure cast zinc case. Satin chrome or nonreflecting gray finish. Stand coupler: ⅝"-27 thread. 18 foot three conductor, shielded, neoprene jacketed, broadcast type cable. 2"d.x6¼"l. Shpg. wt.: 1 pound 2 ounces.
61F504. NET **48.22**



ELECTRO-VOICE MICROPHONE STANDS

Model 419. Handsome desk stand for use with microphones using large-type stud such as 664. Wt., 1 lb.
83F014. NET **5.88**

Model 420 Desk Stand. Heavy cast iron, gray finish. Clamp for 1" diam. mikes. Shpg. wt., 4½ lbs.
83F010. NET **11.76**

Model 423-A. Sturdy, attractive microphone stand for desk or table use. Rubber base buttons. Chrome finish. Base diameter: 5⅛". Shpg. wt., 1 lb.
83F003. NET **2.94**

Model 448. Swivel Boom. Swivels laterally. Microphone is held 11⅞" off mounting surface. Has ⅝ in.-27 thread. Satin chromium finish. ⅝" dia. 20 9/16" length. Shpg. wt., 1 lb. 5 oz.
83F015. NET **14.11**

Model 300 Detachable Microphone Clamp. Provides positive means to mount mike on stand. Has ⅝" or 1" pipe thread. Wt. 8 oz.
83F012. NET **5.88**

Model 428. Touch-to-Talk Stand. Fits any mike with ⅝" —27 thread. Has locking-latch with DPDT switch to keep microphone circuit closed in "talk" position and a rapid-operating release. Stand height, 7" with base. Shipping weight, 2 lbs.
83F004. NET **10.29**

Model 345. Shock-Absorbing Mount. Double shock-absorber action. Prevents reproduction of external shocks. ⅝"-.27 thread. Satin chrome. 1½x3⅞". Shipping weight, 1 lb.
83F005. NET **8.82**

Electro-Voice MICROPHONES

Model 951 Cardioid Crystal. An excellent wide-range, all purpose P.A. microphone for a great variety of acoustic conditions, and especially useful where background noise and reverberation are a problem. Response: 50-11,000 cps. Hi-Z Output: —60 db. 1¾ lbs.
61F551. NET **32.05**

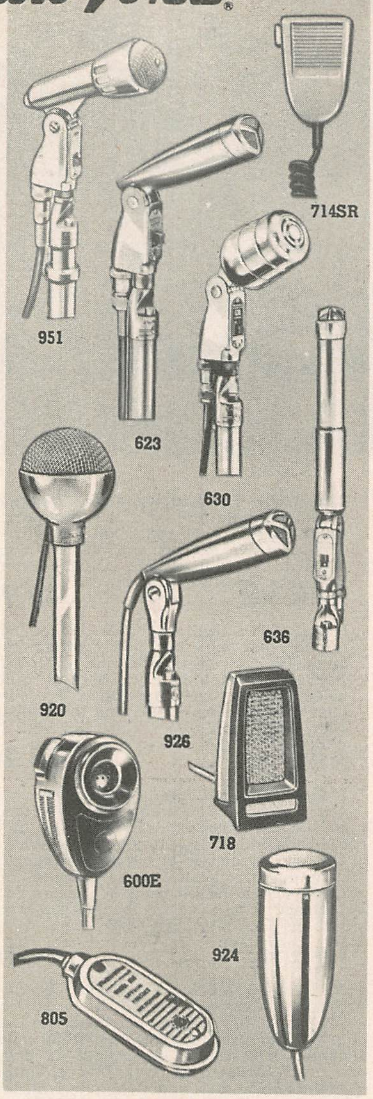
Model 623 Slim Dynamic. A dynamic mike in the medium price field ideal for PA, recording and general purpose use. Omni-directional. Response. 60-12,000 cps. Output, —56 db, Hi or Low Z selected by changing one wire in the cable connector. Tiltable head. On-Off switch. Acoustalloy diaphragm. Built-in MC-4 connector. Satin chrome finished case, 7½x1 5/16''. 18' cable. Shipping weight, 1 lb.
61F544. NET **33.52**

Model 615. "Century" Dynamic. AC-DC insulated. Response 80-8000 cps. Hi-imp. output, —55db. 3x2 3/16x1". 5-ft. cable. 1 lb.
61F556. NET **15.00**

Model 630. General purpose mike. Response, 60-11,000 cps. Output level —55 db. High imp. Built-in cable connector. Adjustable head tilts through a 90 degree arc. Satin chromium finish. On-Off slide switch. 18 ft. shielded cable. Case size: 2x6¼''. Shpg. Wt., 3 lbs.
61F507 NET **30.87**

Model 636 Slimair. "Slim-Trim" dynamic microphone for PA. Acoustically-treated grille head. Frequency response. 60-13,000 cps. High and low impedance outputs, changed internally at cord plug. Output level, —55 db. Omni-directional polar pattern. 90° vertical-tilt swivel head. Built-in MC-4 connector. ⅝'' —27 standard thread. Satin chrome finish. Size, 10¼x1⅛". With 18-ft. cable. Shpg. wt., 2 lbs.
61F501. NET **42.63**

Model 920. Crystal mike featuring all-directional 360 degree pick-up pattern and essentially flat frequency response from 60-7,000 cycles. Acoustically treated fine wire mesh head provides wind and moisture protection. Output level, —50 db. Chrome finish. Hi-Z. 18-ft. cable. Shpg. Wt., 1 lb.
61F520. NET **16.17**



● *NEW* CERAMIC MOBILE MIKE

Model 714SR. A new high output, ceramic mobile microphone for paging, ham, and citizen's band use. Response: 60-7,000 cps, output —55 db. 2½x1 7/16x3⅝. 8 oz.
61F572. NET **9.70**

Electro-Voice Slim Crystal

Model 926 Slim Crystal. An Electro-Voice slim styled crystal microphone whose level and response make it ideal for such general purpose uses as home recording, public address systems and amateurs. Response: 60 to 8000 cps. Output, —60db; Hi-Z. Tiltable head and satin chrome case, 6¾x1 5/16''. 18' cable. Shipping wt., 1 lb.
61F543. NET **17.35**

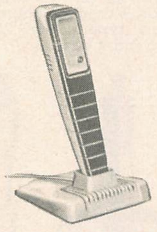
DYNAMIC MOBILE MIKE

Model 600E. Lightweight, hand held extra rugged microphone for portable use. Output of —55 db. Handy press to talk switch. Strong Acoustalloy diaphragm. Size: 2¼"x1½"x4". With 1-ft.-retracted coiled cord. Shipping weight: 10 oz.
Model 600E. Hi-Z.
61F562. NET **27.93**

Model 718. Attractive contemporary styling, along with its low price, makes this microphone a practical replacement for home recorder mikes. Response from 60-6,000 cps. —55 db. High impedance ceramic element resists damage from temperature, humidity extremes. Can be used as a hand mike or it can rest on its own built in base. Case size: 3 9/16x 1¾x1 13/16''. Wt. 8 oz.
61F554. NET **7.06**

Model 924 Lavalier Crystal. For use with home recording, PA, amateur and paging systems. For chest or hand use. Supplied with neck cord, support clips and 18' cable. The pressure cast case is finished in lustrous satin chrome. Wire mesh head treated for wind and moisture protection. Response: 60-10,000 cps, output —60 db. Hi-Z. Case size is 3 5/32x1 5/32". Shipping weight, 1 lb.
61F542. NET **11.76**

Model 805. Contact Mike. For amplifying guitars and other instruments. Contact principle . . . picks up vibrations from body or sounding board of instrument. Employs Hi-Z inertia-type crystal element. Chrome-plated metal case. Complete with 15' cable. 10 oz.
61F521. NET **11.76**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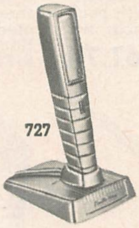
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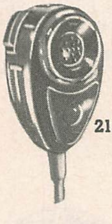
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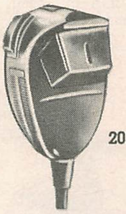
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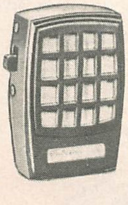
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Model 727 Hi-Z. Slim Ceramic. Ceramic microphone for PA, recording and general use. Withstands temperature and humidity extremes. Response: 60-8,000 cps. Output: —55 db. High imp. only. 8½ ft. cable With desk stand and floor stand adapter. Metalustre gray finish. 7⅞x1½x1¼". 9 oz.
61F555. NET **10.58**

Model 727SR. As above—but with Relay Control switch.
61F564. NET 11.76

Model 729 Hi-Z. Ceramic Cardioid. Random noise and feedback are reduced by 67%; Front pickup double that of pressure mikes. Tailored for single sideband. Output: —55 db. Response: 60 to 8,000 cps. With 8½ ft. cable. 9 oz.
61F565 **14.41**

Model 729SR. As above, but with Relay Control switch.
61F566. .... 15.58

NOTE: NEWARK CAN SUPPLY ALL YOUR MICROPHONE NEEDS. CONSULT OUR SALES DEPARTMENT FOR EXPERT GUIDANCE.

Model 210E. Carbon. A single button carbon mike. Substantially flat response. Matches 100 ohm input. Output: —50 db. Press-to-talk switch. 6' coiled cord. Case size: 2½x1½x4".
61F527. NET **20.58**

Model 205KK Differential Carbon. Close-talking, single-button. Press-to-talk switch. Output of ¼", —50 db. Black phenolic case. With mtg. bracket and 6' coiled cable. 2¼x2¼x4". Wt., 1 lb.
61F529. NET **26.46**

Model 715. Popular "Century" ceramic mike. Response, 60-7,000 cps. Output: —55 db. High impedance. Metal case with TV gray finish. 3x2 3/16x1". With 6' coiled cable. ⅝"-27 thread adapter. 1 lb.
61F530. NET **7.65**

Model 715S. As above but with slide-to-talk switch.
61F531. NET 8.82

Model 715SR. As above but with relay controlling switch, hanger button and bracket for mobile and citizens band use.
61F571. NET **10.29**

ELECTRO-VOICE MICROPHONES

Model 729SR. One of the most ideal ceramic cardioid microphones available for amateur use. Random noise, reverberation and feed back reduced by a factor of 67%. Front pickup is nearly double that of pressure microphones. Discriminating against sound from the rear makes the 729SR ideal for VOX operations. Tailored for single sideband. Output: —60db. Response: 60-8,000 cps. High impedance only. Has relay control switch. Includes desk stand and floorstand adapter. Shipped with 10 feet of shield cable. 8⁷⁄₃₂" long. Gray finish. Shpg. wt., 1½ lbs.

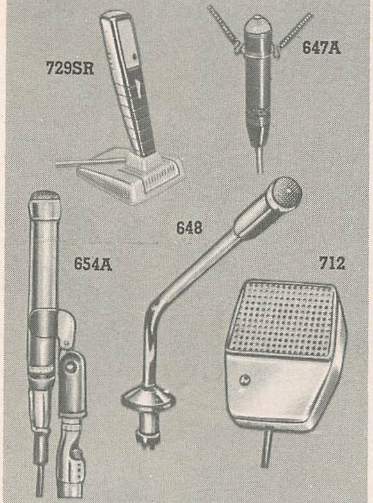
61F566. NET **15.58**

Model 648 Intercom Microphone. Designed for applications where boom-type mounting is desired. Response: 50-10,000 cps. Output level —58 db. 150 ohm phased imp. matches 50 to 250 ohm input. Omnidirectional. Non-reflecting gray. Case size: 1x6¹⁄₁₆". Net wt., 8 oz.

61F545. NET **32.93**

Model 712 Ceramic. Low-cost ceramic mike. Response, 70-7,000 cps. Output: —55 db. Hi-Z. The gray Styron case is 3x2¼x1⅜". 5' cable. Wt., 5 oz.

61F541. NET **4.41**



Model 647A. One of the smallest high quality microphones in the public address field. Though tiny in size, it delivers that big microphone performance. Rugged construction assures long life. For hand held and lavalier use on public address, recording—any application requiring small, unobtrusive or concealed microphones. Freq. resp.: 60-12,000 cps. Impedance Hi-Z or balanced 150 ohms selected from free end of cable. Dimensions: 2¼" long, ¾" diameter. Output level is —58db. 18' cable attached. Finish is non-reflecting gray epoxy. Shipped complete with neck cord. Shipping weight: 2½ lbs.

61F535. NET **48.51**

Model 654A. Versatile Dynamic. Slim, versatile broadcast microphone can be used on stand, in hand or as lavalier. Provides maximum usefulness with high quality. Omnidirectional. Frequency response, 50-16,000 cps., substantially flat. Acoustalloy diaphragm. Output —55 db. Matches all low impedances. Supplied with accessory neck cord and stand mount clamp, 18' cable and Cannon XL-3 connector. Aluminum case finished in TV gray. Size: 7"x1⅛" dia. Shpg. wt., 11 oz.

61F522. NET **58.80**

TURNER QUALITY MICROPHONES

Model 254C. New desk microphone specifically designed for citizens' band usage. Ceramic microphone has on-off push-to-talk and lock switch. Gray hammertone finish. Response: 80 to 7,000 cps. Output level: —54 db. Cable is 7 foot, three conductor (one shielded) wired for relay operation. Shpg. wt. 2 lbs.

61F751. NET **13.82**

Model 304X. Crystal Microphone. High-output, high impedance crystal element; response 60-8,500 cps—perfect for public address systems, paging, ham radio, etc. Use as a lavalier mike with cord and plastic clip supplied, base-mount it on the matching black base, or use the floorstand adapter supplied. Output level: —50 db. Shpg. wt., 1¼ lbs.

61F757. NET **9.70**

Model 304C. Same as Model 304X listed above except equipped with ceramic element for use in warm climate. Response: 60-10,000 cps. Output level:—60 db.

61F756. NET **9.70**

Model 350C. Hand-held ceramic microphone ideal for citizen's band, amateur use, mobile rigs and paging. Plastic case with momentary on-off switch. Frequency Response: 80-7,000 cps. Output Level —54 db. Complete with standard dash bracket and hanger button. With 5' plastic jacketed coiled cord. Shpg. wt., 1 lb.

61F760. NET **9.88**

Model 141-11. Crystal mike which can be used in the hand, on a stand, or as a lavalier. Response from 60-10,000 cps. Output —52 db. With 6 feet single conductor shielded cable. Shpg. wt., 2 lbs.

61F733. NET **8.82**

Model L-14. Lavalier assembly for above mike.

61F734. NET 2.65

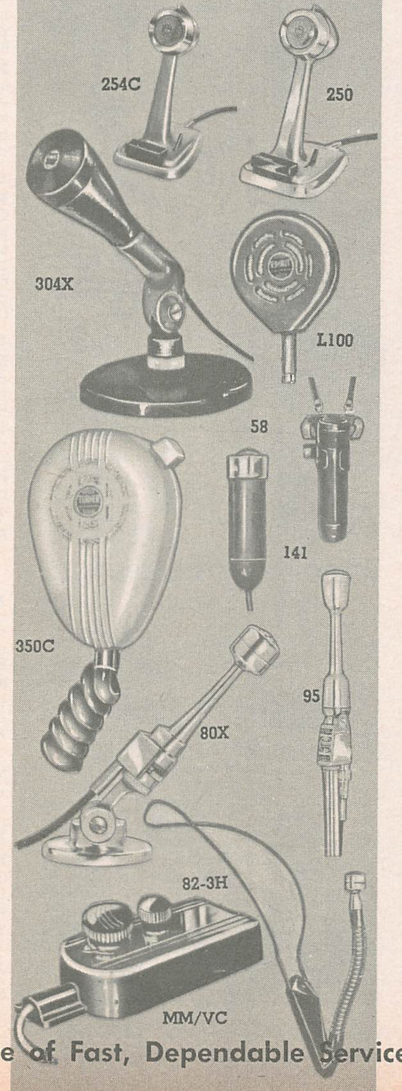
Model 80X. Crystal microphone. Frequency response 80 to 7000 cycles. Sensitivity: approximately 54 db below 1 volt. Bimorph moisture sealed crystal, blast and mechanical shock proof. With 7 foot attached single conductor shielded cable. Wt. 2 lbs.

61F713. NET **9.38**

61F716. Model C-4 Mike Stand. For model 80 above. Pivots in a 135° arc. Size with mike installed. 6⅞". Wt., 3 lbs. **NET** 3.82

Model 3H. "Third Hand." Provides excellent volume without feedback. Has 6¾" flexible gooseneck; ⅝-27 thread. Shpg. wt., 3 lbs.

83F090. NET **2.94**



Model 250. Dynamic mike with exclusive three way switching action. Touch bar on front of mike for touch-to-talk; Hidden switch in base that is on automatically whenever the mike is picked up; on-off-lock-flip type switch on the base can be used to lock all switches on "on" position. One piece die cast construction. Satin chrome finish. Wired to operate both mike and relay circuits at a touch—no gripping necessary. Complete with 20' three conductor, one shielded cable. Output level —51 db., response 60-10,000 cps. Hi-impedance. Shpg. wt., 3 lbs.

61F752. NET **29.11**

Model 251. The same as Model 250 except 150 ohms impedance.

61F750. NET 29.11

Model L100. Lapel type mike. Freq. Responce: 50-10,000 cps. Output: —52 db. Moisture sealed crystal. Grey plastic case. 2x½". 360° swivel clip and 20' attached cable. 2 lbs.

61F718. NET **7.35**

Model 124. Wide range slender dynamic microphone for professional use. High impedance. Gunmetal grey with chrome trim.

61F732. NET 24.99

Model 58. Response 60 to 13,000 cps. For TV, Broadcast, recording, and PA. Omnidirectional pattern. Output 57 db at high impedance. 25 ft. cable. 4x1". 1 lb.

61F729. High/150 Ohm Imp. NET **33.52**

83F095. G-4 Matching Gray Desk Stand

NET 3.38

Model 95D. High impedance dynamic microphone. Response: 70-10,000 cps. Output level, —58 db. Satin chrome finish. With 20' removable cable. Wt., 2 lbs.

61F720. NET **22.05**

83F091. Model C-3 Desk Stand. For 95D above. **NET** 3.23

Model MM/VC. Magnetic contact pickup for musical instruments. Standard Turner pickup. Alnico V circuit provides uniform response over entire musical range. High impedance output. Installed in a few seconds. Finished in grey gunmetal. Complete with 20 ft. single conductor cable and mounting device. With volume control. Shipping weight, 3 lbs.

61F731. NET **18.00**

Model 82-3H Crystal Mike. Has model 80X head on famous Turner "third hand" holder which leaves hands free. 20 ft. shielded cable. Hi Imp. 1½ lbs.

61F753. NET 13.38

SHURE MICROPHONES

Model 540S. "Sonodyne". Features variable frequency response to allow the user to tailor the microphone to the application. Response: 60-10,000 cps. Dual impedance. Choice of 50-250 ohms or high. 15 foot cable, 2 conductor shielded. Stand thread: 5/8"—27 thread. Complete with resonator plate and set-screw for changing response. Polar pattern: omni-directional. Swivel permits 150° tilt of head. Size 1 21/32" diameter 3 5/8" length. Shpg. wt. 3 1/8 lbs.

61F124. NET **29.37**

Model 535 Slendyne. Impedance switch . . . Low position matches inputs of 50-250 ohms, while High position works into conventional PA amplifier with 100,000 ohm or higher input. Frequency response 13,500 cps. Output —61 db into 1000,000 ohms. 7 19/32x1 1/8". With on-off switch, 18 ft. cable, swivel adapter. Wt., 2 7/8 lbs. 2 7/8 lbs.

61F122. NET **42.63**

Model 51 Sonodyne High Output Dynamic. With multi-impedance switch for matching any input: 35 to 50 ohms, 150-250 ohms or Hi-Z. Response 60-10 000 cps. Output, —52 db at Hi-Z. With 15-ft., 2 cond., shielded cable. Wt., 3 1/2 lbs.

61F111. NET **29.11**

Tiny Controlled Magnetic Mikes. For small electronic devices. Metal cased. Rectangular except MC11 (circular).

No.	Type	Freq. Resp.	Out.	Imp.	NET
61F132	MC11	400-3000 cps	71 db	1000	7.35
61F133	MC20	400-4500 cps	75 db	1100	8.23
61F134	MC30	400-3500 cps	76 db	1850	11.76

Model 707A Crystal. Semi-directional. High output level, —50 db. Pearl gray finish. With 7-ft. cable. 2 lbs.

61F101. NET **11.46**

Model 777. Slim-x. Response 60-10,000 cps. Special-sealed crystal element. High impedance. Amphenol plug. 7 foot cable. Length, 4 3/8"; diameter, 1" (mike only). With cradle and cord. Wt. 1 lb.

61F125. NET **14.70**

Model 777S. As above but with switch.

61F126. NET **15.88**

Model 710A. Semi-directional, with 60-9,000 cps response. Output —50db. 2 2/3x 3 1/4x1 1/8". With stand adapter.

61F110. NET **7.06**

Model 710S. As above but with switch.

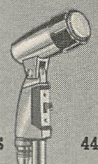
61F109. NET **8.23**

Model 510C Hercules Magnetic Mike. Controlled magnetic type, unaffected by heat or humidity. Response 100-7,000 cps. Output —52.5 db. Metallic green, 2 2/3x 3 1/4x1 1/2". 7 ft. cable. Wt. 1 3/4 lbs.

61F108. NET **10.00**

Model 510S. As above, with on-off switch.

61F107. NET **11.17**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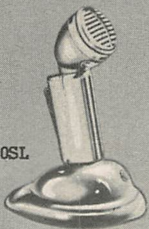
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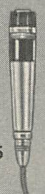
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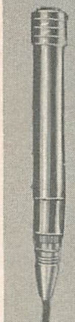
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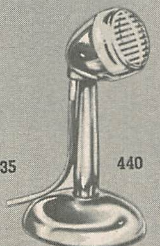
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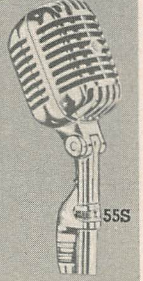
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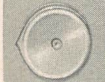
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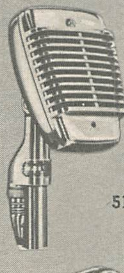
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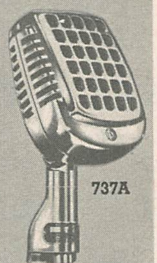
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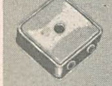
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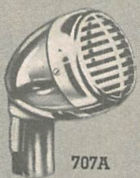
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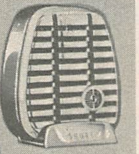
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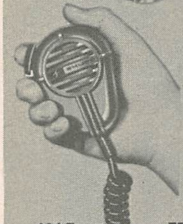
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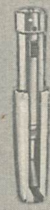
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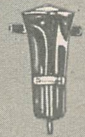

420

Model 440 and 440 SL. Pressure operated units using the balanced armature controlled magnetic principle and especially designed to have high intelligibility for radio communications and the narrow audio frequency range required for single side band transmission. The microphones have high output level, smooth as an integral assembly of a microphone, a grip-to-talk, slide-to-lock switch and stand. **61F143. Model 440SL.** Mike with switch and stand.

NET **27.93**

61F142. Model 440. Mike. **NET** **14.70**

Model 545 "Unidyne III". Moving coil dynamic type, with resp. of 50-15,000 cps. Output level low imp, —57 db; hi-imp., —55db. Choice of 50 ohms, 250 ohms, or hi-imp. Swivel adapter has 3/8"x27 thread. With 18' 3-cond. shielded cable. 5 13/16"L.x 1 1/4"D. —Case is diecast zinc in satin chrome, black. 2 7/8 lbs.

61F139. NET **51.00**

Model 404C Hand Microphone. Freq. response: 200-8000 cps. Open circuit voltage: —50.5 db. (Odb=1 volt per microbar). RTMA Microphone rating Gm (sensitivity): —142.5 db. Recommended load impedance: 100,000 ohms or more. Push to talk DPST switch. High impact "armodur" case. Wt., 1 3/8 lbs.

61F104. NET **19.40**

Model 55S "Unidyne". 50-15,000 cps resp. Output: 35-50 ohms, —54db; 150-250 ohms, —55db; hi-imp., —57db. "Positive action" swivel included, has 18' of 2-cond. shielded cable. Stand thread: 5/8"x27. Case is chrome-finished diecast zinc. HWD 7 3/8x 2 3/16x3 1/16". 4 1/4 lbs.

61F141. NET **49.80**

Model 430. "Commando." Frequency response from 60-10,000 cps. Output level is —52 db. Choice of two impedances, 200 and high, by just changing furnished pin jacks. With swivel adapter, 15 ft. of cable and connector, and press to talk switch.

61F129. NET **22.64**

Model 737A Monoplex Crystal Super-Cardioid. High - output, uni - directional mike with "Uniphase" principle. Phase-shifting network reduces sound from rear by 15 db, reducing feedback. Response, 60-10,000 cps. Output, —53 db. Pivoted chrome head. Size: 4x3 3/32x1 7/8". With 15-ft. cable. Shipping weight, 2 1/2 lbs.

61F100. NET **27.05**

Model 420. "Commando." Impedance changed by pinjacks—no switch; dual impedance of 150 to 250 ohms, or high impedance. Frequency response is 60 to 10,000 cps. Controlled magnetic type. Omni-directional polar pattern. Output level —52 db, 1 mv per 10 microbars. Case is high impact polystyrene. With 20 ft. non-detachable shielded cable. Lavalier cord and clip assembly. 3 11/16" long. Wt. 1/2 lb.

61F128. NET **17.64**

MICROPHONE ACCESSORIES

Type S36A Stand. Fits Shure connector-type mikes. Adapts to others. Removable button for switch. 2 1/2x5x7". 1 1/2 lbs.

83F060. NET **3.82**

Type S34B Stand. Hand or desk use. Metal base, wood handle with 5/8"-27 thread. Base dia. 4 1/2". 6 11/16" high. 1 lb.

83F061. NET **2.65**

Type S-33. Deluxe broadcast stand for Shure 300, 333, 525, 556S. 2 lbs.

83F064. NET **8.82**

Type A83B. Switch. Rotary type on-off.

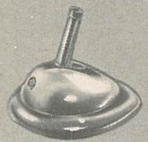
61F136. NET **6.60**

Type A84B. Switch. Momentary press to talk on-off.

39F952. NET **6.47**

Type A86A Transformer. Matches 35-50 and 150-250 ohm mike to hi-Z input. 2-cond. cable to low-Z mike. 1 7/8 lbs.

39F950. NET **10.29**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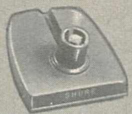
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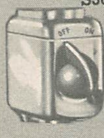
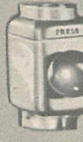


A83B



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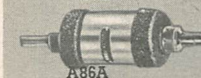
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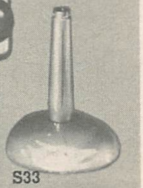

S33

Model S38 Stand. It is a heavy die-cast base. Includes metal screw machine stud for connecting microphone adapter to stand base. Use with 777.

83F062. NET **2.65**

Replacement Microphone Cartridges. Not shown. For general replacement in Shure and other make mikes. All are supplied with rubber mounting ring. Overall depth approximately 7/8". Wt., 4 oz.

Type R5 Controlled Magnetic Replacement Cartridge. High impedance, high output. Unaffected by heat, hum. Shipping weight, 4 oz.

61F116. NET **6.47**

Type R7 Crystal. High output, with smooth frequency response. Replacement for 707A, 708A series. Wt., 4 oz.

61F117. NET **4.85**

Type R10 Carbon. Replacement for CB, 100, and 120 mikes. Output: 5 db below 1 v. per 100 microbar speech signal. Recom. for voice only. Wt., 6 oz.

61F118. NET **5.00**

ASTATIC MICROPHONES

MODEL D-104 SPEECH CRYSTAL

High output crystal. Balanced performance for maximum intelligibility within the voice range. Response 30-7,500 cps has a rising characteristic for crisp articulate speech. High output of —46 decibels (1 volt/dyne/cm^2). Metal seal element defies humidity. Machine brass parts, bright chrome finish, and 5 ft. of single conductor cable. Type G Astatic stand recommended. Dimensions: 3½"x1 1/16". Shpg. wt. 1¾ lbs.

61F005. NET **18.23**

MODEL 331

High impedance ceramic microphone. Voice range unit specifically designed for communication applications, paging and 27 megacycle citizen band use. Small, compact, modern styling design. Frequency range: 300-5000 cps. Output level: —56 db. (1 volt/dyne/cm^2). Has built-in momentary-on spring-return switch. Cable provides for audio and relay connections. Complete with hang up bracket. Die-cast black housing and grille with chrome cap. Size: 4½x½x½". Wt., 1 lb.

61F034. NET **10.53**

MODEL 150

Crystal Hi Z Microphone. Unique modern style—especially designed for tape recorder use, has extremely high output and uniform frequency range. High impact ivory plastic body with gold rigidized metal grille. Output —44db below 1 volt/dyne/cm^2. Range 30 to 10000 cps with 5 megohm load resistance. 5' extra flexible single conductor shielded cable, 2 3/16" square and 1¼" depth. Shpg. wt., 4 oz.

61F031. NET **3.82**

MODEL 77

Positive Anti-Feedback Cardioid Microphone. Uniform from 30 to 15,000 cps. Multi-switch selection "L" 30 to 50 ohms. "M" 150 to 250 ohms, and "H" high imped. 40,000 ohms. Complete with 90° swivel built-in. On-Off switch. 20 foot cable. Size: 8x2 3/16x2¾" deep. Wt., 1¾ lbs.

61F029. NET **48.51**

MODEL 200 VELVET-VOICE

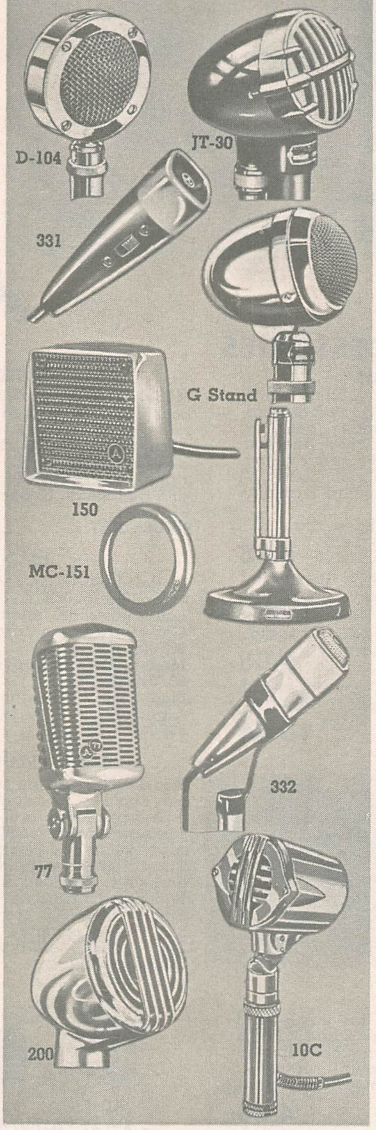
High impedance, semi-directional crystal microphone that features wide-range, high output, and dependability. Response 30-10,000 cps. with output level of —50 db. Built-in handle has separate "quick-lock" detachable base. Comes with stand and 8 ft. cable. Case and handle are finished in gold, with chrome grille. Height 8". 2 lbs.

61F001. NET **11.47**

MODEL 200-S

Exactly like Model 200 microphone above, except has built-in on-off switch. Complete with stand. Shpg. wt., 2 lbs.

61F002. NET **12.64**



MODEL JT-30 CRYSTAL

Specially designed for PA recording and communications. Semi-directional unit. Wide-range response 30-10,000 cps. High impedance. High output level of —49 decibels. Suitable for modest gain requirements. Handsome opalescent gray finish, with bright chrome grille. Unit comes complete with an 8 ft. cable and a desk stand. The base of the stand detaches quickly for hand-held use. Overall height 8". Shpg. wt. 2½ lbs.

61F000. NET **10.81**

MODEL T-3 CRYSTAL

Tilting head mike with self-locking hinge. Response 30-10,000 cps. Output —52 db. High impedance. With 10 ft. cable. Type G stand recomd. Size: 2 5/32" Dia. x 6" long. Wt., 2 lbs.

61F008. NET **17.23**

TYPE G STAND

Grip to talk . . . For D-104, 10C, 10D, DN-HZ, T-3 mikes. Chrome and gray, 8¼" high. With 6 ft. cable. Shpg wt., 2¼ lbs.

61F016. NET **14.66**

MODEL MC151

Replacement Cartridge. Crystal for Astatic CX, CX-1, 200, 241, JT-30, JT-40, T3 mikes. Wt., 8 oz.

61F017. NET **4.12**

MODEL 332

Slim crystal mike. It features a slide switch with a "lock-on" position. Uniform frequency response from 30 to 15,000 cps. High (1-5 megohm) input impedance. Omni-directional. Output: —54 db (0-1 volt microbar). 4½" overall height, 1¼" diameter. Die cast housing. With eight feet of extra-flexible single conductor shielded cable, lavalier cord assembly and stand adapter for 5/8" —27 mounting. Shpg. wt., 6 oz.

61F033. NET **10.53**

MODELS 10C AND 10D

Tailored response and higher talk power makes these microphones ideal for SSB and AM transmitter use. Output: —52 db. freq. range: 300-3000 cps. High impedance. Model 10C contains ceramic element immune to temperature and humidity. Plug-in 5/8"-27 thread mounting with 5' single conductor shielded cable. Size: 2 5/32"Dx6"L.

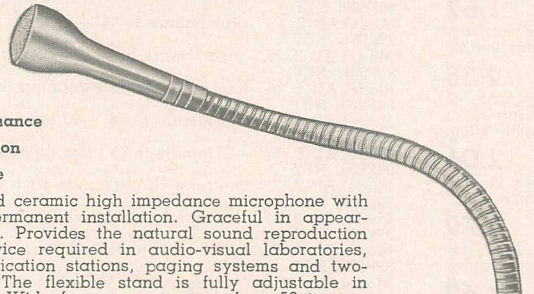
61F026. NET **17.46**

Model 10D contains dynamic unit. High impedance.

61F027. NET **23.34**

Type G stand recommended for both models

SONOTONE CERAMIC "FLEX-MIKE"

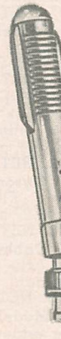


- **Top quality performance**
- **Flexible stand version**
- **Trouble-free service**

Model CM-17. Rugged ceramic high impedance microphone with flexible stand for permanent installation. Graceful in appearance, omnidirectional. Provides the natural sound reproduction and trouble-free service required in audio-visual laboratories, PA systems, communication stations, paging systems and two-way radio stations. The flexible stand is fully adjustable in height and direction. Wide frequency response from 50 to over 11,000 cps and high sensitivity of —56 db is more than ample for speech needs. Controlled presence peak in the mid-range adds vocal realism. Ceramic transducer and metal damping grid are immune to extreme variations in temperature and humidity. Transducer is encased in neoprene and cushion mounted to protect it from physical shocks and drops. Typical load 2 megohms. Connections: 6' of shielded cable. One piece microphone is diecast metal with a brush chrome finish. Overall size: 17". Shpg. wt., 1 lb. 6 oz.

61F035. NET **14.41**

DYNACO MIKE



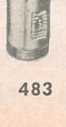
Model B & O 53. Bi directional mike designed primarily for use in studios where high quality sound is a necessity. The amazing definition of this mike is attributed to the use of anisotropic permanent Ticonal E magnets in a special circuit having negligible leakage. Ribbon is only .0001" thick and weighs only 1.3 mg. 3 switched impedances: 50/250/Hi-Z. ±2 db. at 20-13000 cps. With 20' cable. Wt., 2 lbs. Size: 1 5/32"x7½" long.

61F608. NET **59.95**

AMPHENOL

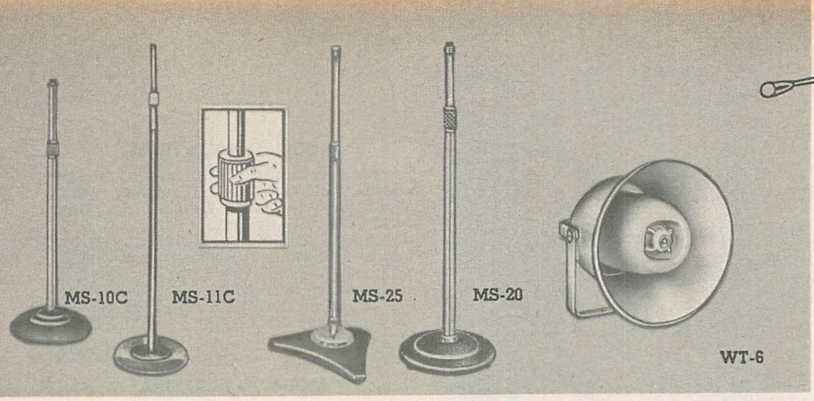
MIKE SWITCH

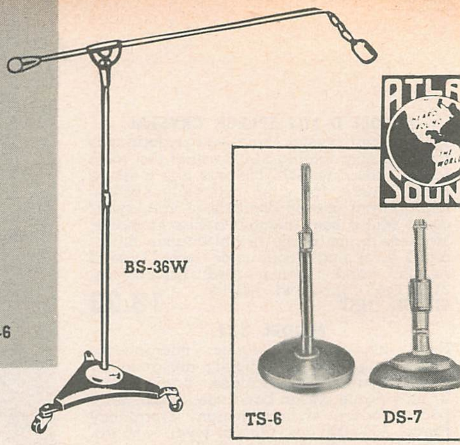
Model 75MC1S. Mike Switch. Fits single-contact mike connectors, 5/8"-27 thread. Complete with push-to-talk and slide-to-lock switch. Shipping wt., 4 oz.



39F990. NET **1.98**

Use Newark's Convenient Time Payment Plan





ATLAS MICROPHONE ACCESSORIES

ATLAS "VELVET ACTION" STANDS

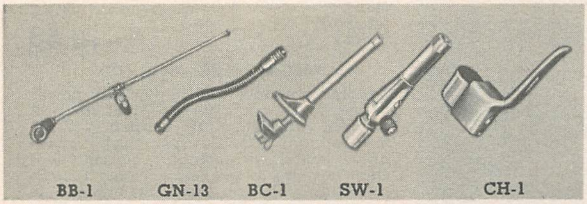
"Velvet Action" stands featuring "Ful-Grip" clutch which offers an extended length body, permitting a secure, full-hand grip. The attractive bases are functionally designed for stability with maximum base mass located where the concentrated weight is most useful. They include self-leveling, shock-absorbing base pads, plus three additional "anti-tip" points located between the base pads. All models terminate in a carefully-machined ⅝'' —27 thread.

Model MS-11C. Adjustable from 35'' to 65''. Base dia., 10''. Base and tube assembly chrome finished. Wt., 13 lbs.
83F032. NET **8.08**

Model MS-20. Height adustable from 37" to 66". Base dia., 12''. Gray base. Chrome finished tube. Wt., 15 lbs.
83F033. NET **10.00**

Model MS-10C. Height adjustable from 35'' to 64". Base dia., 10''. Gray base. Chrome finished tube. Wt., 10 lbs.
83F030. NET **5.88**

Deluxe Model MS-25. "Safety Air Lock Cushion" permits smooth and quiet collapse of stand without sudden slippage. Base dia., 17". Adjustable ht., 37-66". Chrome finish. Sh. wt., 22 lbs.
83F034. NET **16.46**



MICROPHONE ATTACHMENTS

Model BB-1. "Baby Boom" Attachment. Can be easily and quickly attached to any microphone floor stand. Boom arm is equipped with universal swivel that can be adjusted and locked in any position. Sliding counterweight. Has ⅝'' —27 thread. 32-inch tube section is chrome plated. Gray castings. Shipping weight, 3½ lbs.
83F036. NET **4.70**

Model GN-13 Flexible Goose Neck. Attaches to mike stand, providing convenient adjustment for individual use. Bright chrome finish. 13" long, ⅝"-27 thread. Wt., 1 lb.
83F037. NET **1.62**

Atlas Model GN-19 Goose Neck. Can be attached to any microphone stand or fixture. 19'' long. With male and female threads ⅝"-27. Shpg wt., 1 lb.
83F048. NET **2.35**

Model BC-1 Bracket Clamp. For attaching mike boom arm, or goose neck to desk or other solid object. Can be clamped or permanently screwed or bolted in position. 6" chrome stem, gray finish clamp. ⅝-27 thread. Shpg. wt., 1 lb.
83F042. NET **2.06**

SW-1 Gyromatic Swivel. Adjusts to any angle. Locks in any position. Fits any floor or desk stand. Chrome finish. 4½" long, ⅝-27 male, female threads.
39F912. NET **2.79**

CH-1. Cable Hanger. Fits tubes from ⅞" to 1¼" dia. Mike can be quickly coiled, looped over it when moving. Easy 1-screw attachment. Chrome finish.
39F913. NET **1.62**

Atlas Model FS-1 Footswitch. For use with any mike having single ended inputs. Completely shielded and noise free. Can be hand operated on table top. Uses long life micro switch. Cork base prevents skidding. 2½x3".
83F046. NET **7.64**

Atlas Model SB-1 Switchboard Microphone Support. Designed for use in supporting a microphone over conventional types of telephone switchboards. 12" flexible, chrome plated goose neck arm mounted on spring loaded swivel. Wt. 13 lbs.
83F047. NET **8.34**

MICROPHONE BOOM STANDS

Model BS-36W. Professional Boom Stand. Features Safety Air-Lock Cushion, built into vertical section to prevent sudden slippage of upright section. Has gyromatic swivel joint to hold mike in proper position. Has adjustable counterweight, removable boom and ball bearing casters. Boom extension 62"—upright is adjustable from 48" to 72". Base diameter, 17". In chrome and gun metal. Snap-on hangers hold cable to boom. Shpg. wt., 38 lbs.
83F043. NET **44.98**

DESK AND BANQUET STANDS

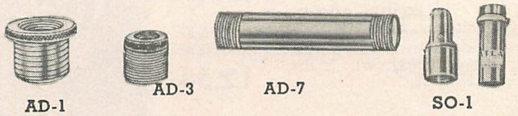
Model DS-5. Employs same fine finish and workmanship as embodied in all ATLAS products. The DS-5 is a 4 inch tall non-adjustable microphone stand. Base diameter is 6''. Chrome tube, and gray base. Wt. 3 lbs.
83F039. NET **1.91**

Model DS-7. As above but adjustable from 8'' to 13''.
83F040. NET **3.23**

Model TS-6. Adjustable banquet stand using full grip control. Adjustable from 18 to 32 inches. All chrome.
83F041. NET **5.73**

"COAX PROJECTOR" HI-FI P.A. REPRODUCER

Model WT-6. An all weather Hi-Fi P.A. reproducer. A true two way speaker . . . two drivers and two horns. A weather proof cone type driver, with a 6" throat, reproduces lows and an individual pressure type driver the highs. A built-in electronic crossover filter supplements the electromechanical frequency limiting characteristics of the two reproducers. As a result, a smooth frequency division is provided and each speaker functions within its predeterminated operating range. Power rating: 15 watts. Frequency range: 100-15,000 cps. Impedance: 8 ohms. Crossover: 1000 cps. Size: Bell opening 15", depth 12". Baked on Beige enamel finish. Supplied with "U" type mtg. bracket. Shpg. wt., 16 lbs.
83F050. NET **35.28**



ATLAS MICROPHONE ADAPTERS AND FITTINGS

Model AD-1. Handy adapter for fitting RCA mike to std. mike stand. Has ½'' male pipe thread and std. ⅝''—female thread.
39F900. NET .... **.53**

Model AD-2. ⅛'' pipe female to ⅝''—27 male.
39F901. NET .... **.38**

Model AD-3. ⅛'' pipe female to ⅝''—27 female.
39F902. NET .... **.38**

Model AD-4. ¾'' long ⅝''—27 male running thread.
39F903. NET .... **.21**

Model AD-5. ⅝''—27 female to ⅝''—27 female.
39F904. NET .... **.38**

Model AD-6. ⅞''—27 female to ⅞'' female coupling.
39F905. NET .... **.71**

Model AD-7. 3'' long tube ⅝''—27 male each end.
39F906. NET .... **.41**

Model AD-8. 6'' long tube ⅝''—27 male each end.
39F907. NET .... **.47**

Model AD-9. ⅞''—27 female to ⅝''—27 female.
39F908. NET .... **.44**

Model AD-10. ⅝''—24 female to ⅝''—27 female.
39F909. NET .... **.76**

Model AD-11. Flange, ⅝'' ⅝-27 female. Base dia., 1¼''.
39F910. NET .... **.44**

Model AD-12. Flange, ⅝''—27 male. ⅞'' mtg. ctrs.
39F911. NET .... **.44**

MODEL SO-1 MIKE ATTACHMENT

Provides a fast, safe means of attaching any microphone to any floor stand. Eliminates the need of threading the microphone on and off stand. Consists of a two-section "Snap-On" ball bearing spring sleeve. Shipping weight, 2 lbs.
39F920. NET **1.62**

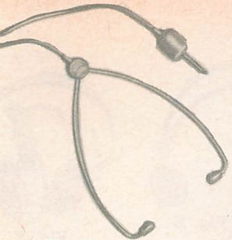


Fig. A

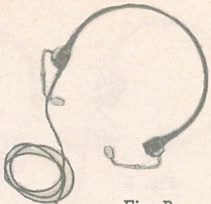
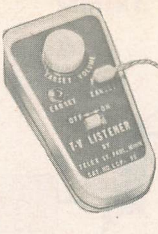


Fig. B



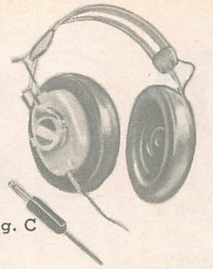


Fig. C

Fig. D

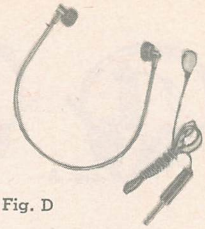


Fig. E

TELEX HEADSETS AND SPEAKERS

HI-FI MODEL HUP-01 "DYNASET"

Fig. A. Under-the-chin dynamic headphone with higher fidelity range. Frequency range, 50 to 8,000 cycles or better. Recommended maximum power input, 25 milliwatts. Midget 6-ohm speaker is built into plug, and speaker diaphragm directs sound through 60" flexible plastic tube to headset. Has exchangeable ear tips.

27F401. Type HUP-01. **NET**...... 8.33

FAA APPROVED TWINSET

Fig. B. Weighs only 1.6 oz. FAA approved for light planes and airlines. Matched magnetic receivers rest lightly on temples. Adjustable ear tips on swiveled sound-pipes fit comfortably into ears, blocking extraneous noise. Either ear tip may be removed for monitoring. Tough grey tenite with nickel plated metal parts. Cord supplied with standard phone plugs into either receiver. Shpg. wt., 12 oz.

Type HTW-2. 500 ohms, app. FAATC-3R2-1D.
27F404. NET...... **14.12**

Type HTL-2. 64 ohms.
27F405. NET...... **14.12**

Type HTX-2. 1000 ohms, app. FAATC-3R2-1C.
27F406. NET...... **14.12**

TELEX "TV LISTENER"

Fig. C. Type LCP-90. Light, comfortable individual listening of radio or TV. Earset plugs into jacks on control. Separate volume control. 19 ft. of cord include
27F424. NET...... **9.37**

Extra Earset. Exactly like the one supplied with "TV Listener" above. 6 oz.
27F435. Type ELV-98. **Net**...... 2.87

PILLOW SPEAKERS

Magnetic plastic units 5/8" thick x 2¼" dia. Flat construction makes these speakers less bulky under a pillow. Maximum power level ½ watt. With cord. Wt. ½ **EACH**
27F422. Type SMV-2A. 125 ohms.
27F423. Type SMY-2A. 2000 ohms. **5.46**
27F410. Type CMM-2 cord for above...... 2.34

Dynamic type floating coil assembly handles ½ watt of power without distortion. Comfortable listening level with 1 milliwatt input. Dia. 3¾". Max. thickness 1⅛". Supplied with 5 ft. cord and std. plug. 1 lb.
27F420. Type SDN-2A. 3.2 ohm. **NET**...... 6.18
27F421. Type SDM-2A 10,000 ohms. **Net** 9.22

● *NEW MUFF STYLE MAGNA-TWIN* MARK III

Fig. D. Rugged construction for use in electronic teaching and general communications. Adjustable rubber covered stainless steel headbands. Washable rubber earmuffs. 5 foot cord with standard phone plugs. Freq. range 50-9000 cps. Specially designed magnetic drivers. Sh. wt., 3 lbs.

Type MR-6. 500/600 ohm recvrs.
27F396. NET...... **17.16**

Type MR-4. 10,000 ohm receivers.
27F368. NET...... 17.16

Type MRB-45. With boom and 50 ohm carbon mike and 500/600 ohm receivers.
27F369. NET...... 29.10

Type MRB-60. With boom and 20 ohm dynamic mike and 10,000 ohm receivers.
27F370. NET...... 27.20

Type MRB-75. With boom and 50 ohm carbon mike and single 500/600 ohm receiver.
27F371. NET...... 21.33

DYNA-TWIN HEADSET

Fig. D. Dynamic headset. Full 50 to 15,000 cps frequency response. Comfortable to wear. Adjustable headband. Foam rubber cushions acoustically seal out external noises. Supplied with 8' cord. Shpg. wt., 12 oz.

Model HDP-53A. With three circuit plugs, 8 ohms each side.
27F378. NET...... **27.95**

TELEX TELE-FI

Fig. E. Unique 3-D design to give 30% better understanding. Sound reaches one ear 1 millisecond after the other thru plastic under-chin loop. Weighs only ½ oz., practically no sensation of presence on head. Replaceable foam rubber ear tips. Ear loop included for one ear listening when desired. Freq. response 60-6000 cps. Listening level, 1 mw; max level, 25 mw. With 5 foot cord and phone plug. Shpg. wt., 5 oz.

Type HFV-91. 125 ohm impedance.
27F437. NET...... **6.35**

Type HFR-91. 15 ohm impedance.
27F390. NET...... 6.35

Type HFY-91. 2000 ohm impedance.
27F391. NET...... 6.35

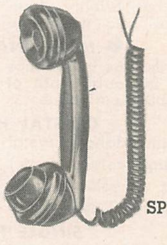
Type CMT-2. Std. cord for Monoset, Tele-Fi, Earsets, TV listener.
27F400. NET...... 2.34

WHEELER SOUND POWERED HANDSETS

Model SPT-123. Self contained, self powered high level handset only. Requires no batteries—voice supplies needed power. As many as 12 units may be connected in parallel. Sensitive enough to use where background noise is high. With 2 conductor Koiled Kord retractile-type from 8" to 48", less insulated clips. Shipping weight, 1½ pounds.
95F553. NET...... **14.41**

SPT-150. As above, high level handset only. For use in high noise level areas. Two conductors. Koiled Kord retractile-type from 8" to 48". With insulated clips. Shpg. wt., 2 lbs.
95F554. NET...... **14.96**

Model SPT-102 Handset. Self-powered telephone handset for use in setting up communications systems where quick, inexpensive, 2-way talking is required. Requires no batteries or power supply. Will operate up to 20 miles under favorable conditions. Designed to meet the growing demand for a safe, dependable means of communication. Handset cable is 4', 2 conductor cable with rubber insulated test clips. As many as 12 units may be connected in parallel. Made of black phenolic. With 3½ ft. cable and clips, less wire. Wt., 1½ lbs.
95F551. NET EACH...... **12.88**



SPT-123

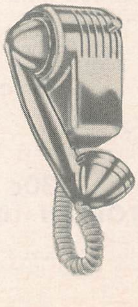
SPT-102

MODEL SPS-205 PAIR PHONE INTERCOM SYSTEM

Low cost, self-powered intercom system for industrial plants, offices, etc. Consists of 2 sound powered handsets, with a ringing signal. Operates up to 20 miles. Made of plastic and corrosion-proof metal parts. Completely self-powered—no batteries required. Less cable. Wt., 7 lbs.
95F550. NET PER PAIR...... **68.40**

95F552. SPS-205-3. Three Phone System. As above but with three handsets. Shpg. wt., 11 lbs.
NET...... **102.64**

SPS-205



TRIMM STANDARD AND STEREO HEADSETS

STANDARD MONAURAL HEADSETS

Series 56. Standard monaural headsets with vinyl covered adjustable headband and new yolk adjustment device. For broadcast, Hi-Fi, and language training. Electro-magnetic design with "floating" diaphragm. Frequency range to 10,000 cps. Neoprene 5 foot single cord for "over-the-head" use, cord is integral part of headband. Shpg. wt., 1 lb.

Type 56-2M. 2000 ohm impedance.
27F345. NET...... **16.59**

Type 56-5M. 5000 ohm impedance.
27F346. NET...... 16.59

Type 56-12M. 12,000 ohm impedance.
27F347. NET...... 17.19

STEREO HEADSET

Type 57-14-2M. 2000 ohm stereo headset designed for broadcast and Hi-Fi use. Frequency response to 10,000 cps. Vinyl covered double headband with new yolk adjustmant device. Electro-magnetic design with "floating" diaphragm. Supplied with 5 foot braided nylon "Y" cord with three circuit plug. Shpg. wt., 1 lb.
27F348. NET...... **18.99**

Series 56

HEADSETS AND SPEAKERS
TRIMM

Fig. A

Fig. B

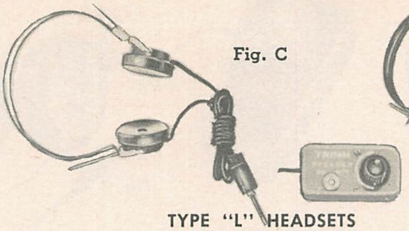


Fig. C

Fig. D

Fig. E

Fig. F

ACME DELUXE PHONES

Fig. A. Model 24-2K. Double headset. Superior low cost headset. Ideal for Crystal sets, code training classes, centralized radio systems and scores of applications requiring a low cost set. Each unit weighs less than 1½ oz. total weight only 6 oz. Resistance 2000 ohms. Bakelite molded shell and cap, shell ribbed to increase strength. Have braided tinsel cord 4½ ft. long. Phone tip terminals. 8 oz.
27F584. NET **2.36**

Fig. B. Model 27-1K. Single Headset. Lightweight single headphone with headband, Imped. 1000 ohms. 4½' long flexible vinyl cord. Shpg. Wt. 4 oz.
27F585. NET **1.29**

TRIMM TV HEADSET KIT

Fig. C. Type 632. TV accessory for private hearing of TV sound. Consists of outlet box with 15 feet of three-conductor cable, one low impedance headset with 4½-foot cord and plug. Outlet box contains two phone jacks, permitting multiple headset installation, remote on-off switch, and volume control. 3¾x2⅛x1¼". 2 lbs.
27F579. NET **7.14**

TYPE "L" HEADSETS

Fig. D. Lightweight high quality headsets. Particularly suited for systems requiring extended frequency range such as broadcast station, Hi-Fi, Stereo and military communication application. Employs new floating diaphragm which provides response unaffected after prolonged exposure to elevated temperature and humidity. FREQUENCY RESPONSE up to 10,000 cps. Extremely ruggedized construction with capsuled sound generating unit within an outer shell. More durable than crystal type phones. Nylon braided 6' cord.
27F351. Type 50-08. 8 ohm. **NET** **13.52**
27F352. Type 50-2M. 2K ohm **NET** 13.52
27F353. Type 50-12M. 12K ohm. **NET** 13.52

"FEATHERWEIGHT"

Fig. E. Type 106. Compact headphones weighing only 4 oz. Have forged bakelite shells and caps, and adjustable headband. 24,000 ohms for picking up weak signals. 6 ft. moistureproof cord. Shpg. Wt. 9 oz.
27F580. 24000 ohms. **NET** **6.47**
27F560. Type 104-2K. 2000 ohms. **Net 6.47**

"EAR CUSHIONS"

For comfort and elimination of disturbing outside noises. No. 654 fits Acme, Featherweight and "L" Type phones. No. 660 fits Dependable and Brush phones; Molded of soft sponge rubber. No. 655 fits "L", Mil ANB-H-1 and Permoflux units; Molded of solid rubber. No. 656 fits the same types as No. 655 but recommended as better choice; Sponge rubber face, solid rubber back.
27F557. No. 654. NET per pair .... **.94**
27F355. No. 655. NET per pair **1.76**
27F356. No. 656 NET per pair **2.47**
27F357. No. 660. NET per pair **1.47**

"DEPENDABLE"

Fig. F. Type 70-2K. Efficient performance in any application. Bakelite shells and caps, plastic covered headband. 5' braided cord. Wt. 1 lb.
27F581. 2000 ohms. **NET** **3.18**
27F582. Type 70-3K. 3000 ohms. **Net 3.35**
27F583. Type 70-4K. 4000 ohms. **Net 3.53**

CLEVITE-BRUSH

● *NEW* EDUCATIONAL HEADPHONES

ED-300. Frequency response 50-10,000 CPS ±3 db from 80-8,000 CPS. Impedance 50K ohms at 1Kc. Constructed of rugged telephone material with attractive design. The headband is stainless steel covered with washable polyvinylchloride. Interior connections are gold plated; terminals are welded for maximum strength. With washable blanket type ear cushion. Phones can be easily removed by pressing out roll pin. The acoustic bronze filter facilitates perfect dependability. Structurally sturdy and built to stand rigorous language lab usage. In attractive suntan color and weighing only 9 oz. 8"x8½"x3¼
27F358. NET **27.44**
27F359. Donut cushion for ED-300 .... **1.22**
27F360. Blanket Ear Cushion for ED-300 **.73**

● *NEW* MODEL BA-206

For the discriminating music listener: Ideal for both stereophonic or monophonic phonograph records, tape recordings or FM broadcasts. The BA-206 headphones have an exceptionally flat response out to 10,000 CPS and create outstanding fidelity of reception. High impedance and negligible power requirements allow monitoring without any effect on associated equipment. Metalseal crystal elements provide protection against excessive humidity. Wt. 8 oz.
27F361. NET **30.28**

● *NEW* BINAURAL MODELS

Equipt with binaural cords. The impedance of the binaural models is double that of the regular model. Double headphones.
27F362. BA-206B **32.54**
27F363. BA-200B **19.11**

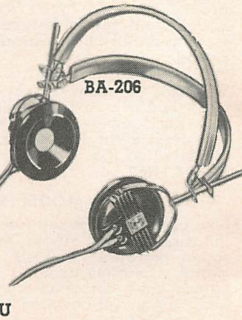
CRYSTAL HEADPHONES

Model BA-200-2. High impedance crystal headphones. Extremely lightweight (6 oz.) and very sensitive. For schools, laboratories, etc. Response: 100-5,000 cps. Cone-type diaphragm. Molded plastic case. Require small DC blocking condenser for DC circuits. With 5-ft. cord and headband. 2 lbs.
27F570. NET **16.90**

SINGLE PHONE SET

Model BA-201. As above, but consists of a single phone complete with 5-ft. cord and spring steel headband with end-cushion iron. Weighs only 5 oz. Shpg. wt., 1 lb.
27F571. NET **14.65**

BA-200


BA-206

C. F. CANNON

ALNICO MAGNETIC HEADSETS

Powerful Alnico permanent magnets assure high fidelity response and excellent volume over wide frequency range. Bakelite case and caps with 4½ ft. flexible tinsel cord with phone tips. Adjustable headband. Shpg. Wt., 14 oz.
27F448. Type AM15-2. 2000 ohms **2.15**
27F449. Type AM15-3. 3000 ohms **2.29**

CORDS

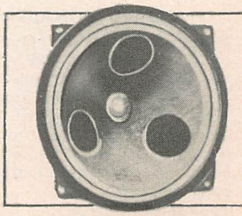
Copper tinsel conductor.
Single Cords. 4½ ft. Shpg. wt., 2 oz.
27F552. Tips 1 end, spade-lugs on other.
27F553. Tips on both ends.
NET EACH **30c**

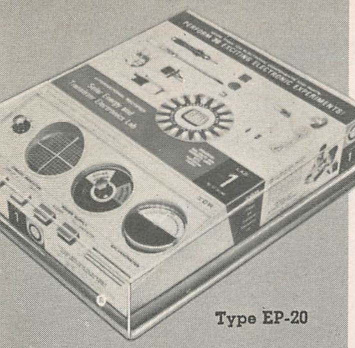
Double Cords. 4½ ft. Shpg. wt., 2 oz.
27F554. Spade-lugs 1 end; tips on other.
27F555. Tips on both ends.
27F556. Small spade lugs on one end; tips on other.
NET EACH **45c**

STENTORIAN 10" LOUDSPEAKER

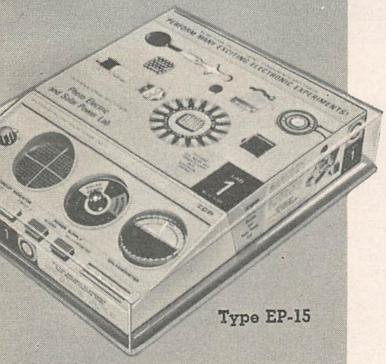
Model HF-1012-U. 10" Universal Impedance Loudspeaker. 2 lb. Alcomax-3 field magnet. Produces 12,000 gauss field at gap. Special variable voice coil, 1" dia. that matches 4, 8, and 16 ohms amplifier output. Freq. resp.: 30-14,000 cps with fundamental resonance at 35 cps. Unit handles 10-watts. W/B Cambric cone with mid-range stabilizer. Diecast chassis. 4 mtg. holes on $10\frac{25}{32}$" circle. Speaker cut-out: 9¼".
86F290. NET **18.95**

HF-1012-U



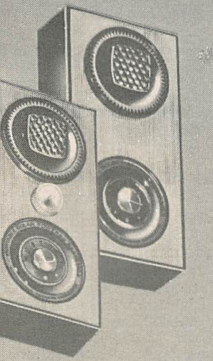


Type EP-20



Type EP-15

Type EP-10



Type EP-5

Type EP-6

Type EP-1

SCIENCE KITS

International Rectifier Science Kits answer the demand created by a growing interest in space-age technology. All kits can use the power of the sun to run the equipment because of the solar cells which are included in each set. The same high standards of reliability used in solar cell production for our nation's satellites is assured in each of these kits. All practical and precision built projects are explained in the easy to understand instruction manual. Each kit features a master control panel. After initial assembly, all subsequent projects are operated through output terminals. The circuit board is designed to allow many projects to be undertaken without disassembling components.

SOLAR CELLS

Each science kit includes an actual, authentic solar cell. These cells provide true space age power from the sun and offer an exclusive thrill found only in projects created from these kits. These cells are the same type as those used in our nation's space projects. They are in a sealed plastic case which offers optimum protection and easy handling.

SNAP-FIT CONNECTORS

Each kit contains these exclusive connectors which hold components and connecting wires securely in place without soldering.

PUSH-BUTTON SWITCHES

These trouble-free switches are similar to those used on professional electronic instruments. They are easy to assemble even for the young hobbyist.

SOLAR ENERGY AND TRANSISTOR ELECTRONICS LAB 1

Type EP-20 Designed to acquaint the junior scientist with basic electronic circuitry. Control panel features indicator scope, galvanometer, signal buzzer and push-button selector. Builds two different radios, code practice set, sun operated "wake-up" alarm, phone and telegraph broadcast transmitters. Size: $16\frac{3}{16}$x$11\frac{3}{8}$x3". Shpg. wt. 3 lbs.

93F200. NET.............................. **14.66**

SOLAR ENERGY AND TRANSISTOR ELECTRONICS LAB 3

Type EP-22 The most complete electronics lab which includes all the features of the other labs. Builds an amplifier, public address system, inter-com, telephone pick-up, electronic timer, and many circuits simulating those in missile guidance, computers, etc. As simple to assemble as the basic unit. Size: $16\frac{3}{16}$x16x3". Shpg. wt., 4½ lbs.

93F202. NET.............................. **29.36**

PHOTO ELECTRIC AND SOLAR POWER LAB 2

Type EP-16 Over 30 experiments can be performed using professional components in this complete, advanced lab. Features an electric motor which runs directly off the solar cell, and a power relay for remote control of electrical appliances. No soldering or special tools required. Size: $16\frac{3}{16}$x16x3". Shpg. wt. 4½ lbs.

93F204. NET.............................. **25.70**

SOLAR ENERGY AND TRANSISTOR ELECTRONICS LAB 2

Type EP-21 An advanced kit which features a master control panel. Builds solar-powered satellite type "beep" transmitter, electronic light indicators, burglar and fire alarm systems, radios, and a transistorized broadcast transmitter. Solar power will operate most experiments; battery power optional. Size: $16\frac{3}{16}$x16x3". Shpg. wt. 4 lbs.

93F201. NET.............................. **22.01**

PHOTO ELECTRIC AND SOLAR POWER LAB 1

Type EP-15 A basic kit designed to demonstrate photo electricity and solar energy and its conversion for use in basic electric circuitry. Builds light meters, rain detectors, "wake-up" alarms, light operated door alarms, TV "commercial killers". Solar power will operate most experiments; battery power optional. Size: $16\frac{3}{16}$x$11\frac{3}{8}$x3". Shpg. wt. 3 lbs.

93F203. NET.............................. **18.34**

BASIC ELECTRICITY, SOLAR POWER AND MAGNETISM LAB 3

Type EP-11 Performs over 30 experiments in electro chemistry, magnetism, solar energy conversion, and the building of an electric motor. Lab includes a unique circuit board which allows assembly and reassembly of many circuits. Size: $16\frac{3}{16}$x$11\frac{3}{8}$x3". Shpg. wt. 3 lbs.

93F205. NET.............................. **14.66**

BASIC ELECTRICITY AND SOLAR POWER LAB 1

Type EP-10 This basic kit provides a complete beginners course in basic electricity and the conversion of sunlight to electrical energy. Builds a chemical battery, basic signal circuits, telegraph code practice circuits, and demonstrates principles of light meters and automatic cameras. Sun battery included. No soldering or special tools required. Instruction manual incl. Size: $16\frac{3}{16}$x$11\frac{3}{8}$x3". Shpg. wt. 2⅓ lbs.

93F206. NET.............................. **9.52**

SOLAR POWERED TRANSISTOR-SPEAKER RADIO KIT

Type EP-6 A powerful senior radio kit complete with Alnico V loudspeaker, rotary volume control, graduated tuning dial, solar cell, 2 transistors, germanium diode. Features built-in ferrite antenna, unique swivel mounting for solar cell, and switch for conversion from solar to battery operation. Basic principles of radio transmission and reception is clearly explained through easy to understand instruction manual. Durable and beautifully designed case. Once assembled, unit is sure to be a constant companion of the builder. Shpg. wt. 2¼ lbs.

93F207. NET.............................. **14.66**

SOLAR POWERED PERSONAL TRANSISTOR RADIO KIT

Type EP-5 A complete transistor radio kit which contains solar cell, transistor, germanium diode, rotary volume control, graduated tuning dial, and earphone. Many hours of pleasure may be had in constructing the solar powered transistor radio which performs outdoors and under artificial light. Unit features an exclusive swivel mounting for the solar cell. Includes instruction manual. Also contains battery holder and built in "solar power-battery power" switch so that radio may be operated in the dark. Shpg. wt. 2¼ lbs.

93F208. NET.............................. **9.52**

SOLAR POWERED ELECTRIC MOTOR DRIVE

Type EP-1 The basic solar "sun battery" energy conversion kit. Provides the most vivid demonstration of direct, immediate conversion of solar power into electrical energy. The satellite type solar cell produces approximately 1 volt and 20 milliamperes of electrical power. This power supply is adequate enough to drive the motor contained in the kit. Included in the kit are reduction gears, pulley, and instructions for the operation of miniature cars and boats and a handbook of solar energy and photo electricity.

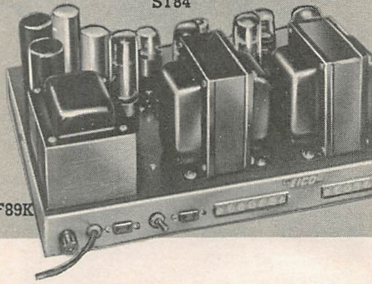
93F210. NET.............................. **7.31**

HF85

ST84

HF87K

EICO®



HF89K

HI FI KITS

STEREOPHONIC DUAL PREAMPLIFIER KIT

Model HF85K. Select, preamplify and control any stereophonic source. Low level inputs in each channel for mag. phono, tape head, and microphone. High level inputs for AM tuner, FM tuner, and FM Multiplex. Independent level controls that may be operated separately or together with built-in clutch. Independent bass and treble tone controls in each channel. Freq. response: ±.3 db 5-200,000 cps. Sensitivity: Mag. Phono 1 mv; Microphone 1 mv; Tape Head 0.5 mv; High Level inputs 0.17V. Harmonic distortion 0.1% at 3V RMS out; 0.15% at 5V RMS. Complete with easy-to-follow instructions. Size: 3⅝x12x8¼''. Includes cover. Shpg. Wt., 10 lbs.

96F669. NET........................ **39.95**

96F670. Model HF85W. Factory wired and tested........................64.95

NEW DELUXE STEREO PREAMPLIFIER KIT

Model ST84K. Low distortion stereo preamplifier for use wi good power amplifiers. Separate bass and treble controls f each channel. Other controls: Input Selector (tape/aux; MX aux; FM/AM; phono A; phono B. mic); Mode; Balance; Leve High Frequency Filter (permits roll-off above 7kc to suppre hiss); Low Frequency Filter (to suppress rumble); tape equa zation; tape monitor (to compare recording being made wi source); Loudness switch (changes Level control into Loudne control). Tape head inputs. Freq. response ±0.3db 5-25,0 cps; harm. distort. (20-20,000 cps) .06% at 2V output; I distort. (60 & 7000 cps at 4:1) .04% at 2V output; hum ar noise —65db or better. Tone controls ±15db at 50 cps, ±15db 10kc. Hum and noise —65 db on magnetic phono @ 10 mv i Tubes: 5-12AX7/ECC83, 1-6x4. Size 5½Hx15⅞Wx8¾"D. Wi complete instructions. Shpg. wt., 8½ lbs. Includes enclosure.

96F626. NET........................ **59.9**

96F627. Model ST84. Factory wired and tested........................89.

70 WATT STEREO DUAL POWER AMPLIFIER KIT

Model HF87K. For use with any good stereo preamp that is self-powered. Each power amp rated at 35 watts and employs cathode coupled phase inverter-driven circuit, with preceding direct-coupled voltage amp. Common power supply has good regulation because of self-bias operation and low impedance of silicon diode rectifiers. Surgistor is employed to limit surge currents at starting. Used as either stereophonic dual 35 watt amp or a monophonic 70 watt amp. Input level controls permit adjustment of sensitivity. Output: 70 watts (2-35 watt amp continuous, 140 watts peak. IM distortion less than 1% at watts. Freq. response: ±0.5 db 5 cps-100kc. Sensitivity: 0.38 for full output. 117V, 60 cps. Power consumption 215 watt Size: 6x15x11". Shpg. wt., 32 lbs. Less enclosure.

96F667. NET........................ **74.9**

96F659. Model HF87. Factory wired and tested........................114.

100 WATT STEREO DUAL POWER AMPLIFIER KIT

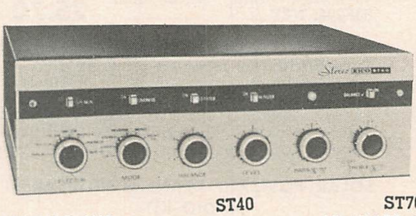
Model HF89K. Easy to assemble kit, same as Model HF87K above except: Output, 100 watts (two 50 watt amps). Continuous, 200 watts peak. IM distortion less than 0.5%at 100 watts. Sensitivity: 0.55V for full output. Power consumption: 215 watts no signal. 270 at 100 watts output. Size: 6x15x11". Complete with instructions. Shpg. wt., 40 lbs. Less enclosure.

96F663. NET........................ **99.5**

96F664. Model HF89. Factory wired and tested........................139.

96F625. Model E-8. Enclosure for HF87 and HF89 amplifiers.....4.

AF-4



ST40

ST70

COMPLETE STEREO DUAL AMPLIFIER KIT

Model AF-4 is constituted of two highly fed-back, four-watt amplifiers preceded by input selection, mode of operation, tone and level control facilities required for complete flexibility in stereophonic/monophonic operation. Provides high fidelity quality at power levels adequate to drive high efficiency loudspeakers to concert volume. Frequency response—± 0.5 db, 30-20,000 cps. Input impedance—Ceramic cartridge phono input—2 megohms; all other input—1 meg. Speaker connections—4, 8, 16, and 32 Ohms. Power requirements—117 VAC, 60 cps, 70 watts power consumption. Harmonic distortion: 8 watts—3% 200-5,000 cps. (max.) Shpg. wt., 13 lbs. 3⅝x12x8¼". Includes metal cover.

96F634. Model AF-4K. Kit. NET........................ **38.95**

96F635. Model AF-4. Factory wired and tested........................64.95

40-WATT INTEGRATED STEREO AMPLIFIER KIT

Model ST40K. Fully-equipped control panel allows normal or r verse stereo using both of the identical 20-watt amplifiers, mono listening using either amplifier alone. Has separate pairs inputs for preamplified tape, tape head, magnetic changer ar magnetic turntable cartridge, FM-AM, and FM-Multiplex; "aux iary" inputs accept crystal or ceramic cartridge. Output Power 40 watts continuous; 80 watts peak. IM Distortion: 1% at 40 wat Harmonic Distortion—less than 1% at 40-20,000 cps within 1 db 40 watts. Frequency Response at ±1 db 12-25,000 at 2 wat Speaker Connections—4, 8, and 16 ohms. Special connection f third channel speaker. Shpg. wt., 35 lbs. Includes cover.

96F636. Kit with illustrated instructions........................ **79.9**

96F637. Model ST40. Factory wired and tested........................129.

70-WATT INTEGRATED STEREO AMPLIFIER KIT

A complete stereophonic high-fidelity control center plus two separate, 35 watt amplifiers. Mode switch on front panel enables: playing either amplifier alone; use of both amplifiers together for enhanced mono listening through two speaker systems. The ST70 will accept, control, and amplify signals from any stereo source. 4-, 8-, and 16-ohm speaker connections, plus third channel speaker connection direct to third speaker. Each audio power amplifier employs the cathode-coupled, phase inverter circuitry, preceded by a direct-coupled voltage amplifier. Output Power—70 wa continuous, 140 watts peak. IM Distortion—1% at 70 watts. Ha monic Distortion—less than 1% from 25 to 20,000 cps within 1 of 70 watts. Frequency Response—½ db 10-50,000 cps. Power co sumption—150 watts. 5⅛x15⅞x15". Shpg. wt., 44 lbs. Includ cover.

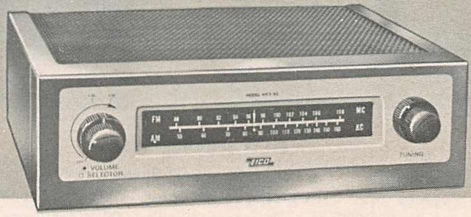
96F638. Model ST70K. Kit........................ **99.9**

96F639. Model ST70. Factory wired and tested........................149.

ST97

MX99

HFT90


HFT92

HI-FI KITS

FM-MULTIPLEX STEREO TUNER KIT

del ST-97K. High quality FM tuner with built-in multiplex ptor. Pre-wired and pre-aligned front-end and IF strip, in-ding 4IF stages plus 1 mc p-p ratio detector. Includes AFC h defeat. Slide rule tuning with "eyetronic" traveling tuning icator. Stereo indicating pilot lamp automatically lit by stereo t carrier. Cathode follower driven 15kc low-pass filter in h audio output channel. Controls: tuning; separation AFC on-eat; stereo-mono; and power 3uV IHFM sensitivity: 1.5 uv for db quieting; multiplex locking sensitivity: 2.5 uv. IHFM signal-iose ratio:—55db. Frequency response: 20 to 15,000 cps. IHFM monic distortion 0.6%, IHFM IM distortion 0.1%. Channel aration 30 db IHFM capture ration 3db. Size: 5⅛Hx15⅞Wx "D. Shpg. wt. 23 lbs.

628. Kit. NET.. **99.95**

629. Model ST-97. As above but factory wired. **NET**......**149.95**

FM TUNER KIT

del HFT90K. Includes entirely completed and aligned "front " (housed and completely shielded in a solid aluminum-zinc ting) that not only provides fabulous sensitivity and low noise, is also entirely stable and drift-free. Sensitivity: 1.5 uv for 20 quieting, 2.5 uv for 30 db quieting, full limiting from 25 uv. quency Response: uniform from 20 to 20,000 cps ±1 db. IF d width: 260 kc at 6 db. Stability: Maximum drift of 20 kc from d start. Stable after approx. one minute. Size: 3⅝x12x8¼". pping wt., 10 lbs. Less case.

682. NET.. **39.95**

del HFT 90. Factory wired and tested FM Tuner.

686. NET **65.95**

683. Model E-3 enclosure for above models. **NET**..............**3.95**

FM MULTIPLEX ADAPTOR KIT

Model MX-99K. Enables all Eico FM equipment (HFT-90, HFT-92 and ST-96) and any other FM tuner with a multiplex output to receive Multiplex-FM-Stereo broadcasts. It incorporates the best features of both the matrixing and sampling techniques. Contains no phase distorting filters and suppresses all spurious signals. It is self-powered and provides entirely automatic stereo/mono operation and includes low impedance cathode follower outputs. Indicator light turns on when station is broadcasting in multiplex stereo. Separation of 30 db between channels. Size: 9⅛x6⅜x3⅞". Shpg. wt.: 7 lbs. Less cover.

96F640. Kit. **NET**.. **39.95**

96F641. Model MX-99. As above but factory wired. **NET**........**64.95**

96F642. E-9 enclosure for above models. **NET**..........................**2.95**

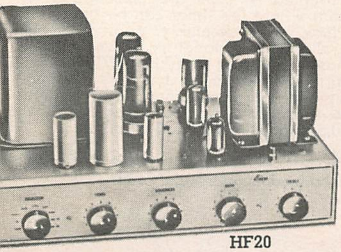
FM/AM TUNER KIT

Model HFT92K. Combines on one chassis the renowned HFT90 FM Tuner with excellent AM tuning facilities. Fabulous sensitivity, low noise, complete stability, and drift-free performance are a result of advanced circuitry. Traveling eye indicator contracts when at exact center of broadcast channel. All IF's supplied prealigned. Sensitivity FM: 1.5 uv for 20 db quieting, AM: 20 uv for .8V out with 15 db S/N. Stability FM: Maximum drift 20 kc from cold start. Frequency Resp. FM: 20-20,000 cps ±1 db. AM: 20-5,000 cps ±3 db. IF bandwidth FM: 260 Kc at 6 db. AM: 8 Kc at 6 db. Size: 3⅝x12x8¼". Shpg. wt., 12 lbs. Includes cover.

96F665. .... **59.95**

Model HFT92. Factory wired and tested.

96F662. NET **94.95**


HF20

HF32

HF12

20-WATT INTEGRATED AMPLIFIER KIT

del HF20-K. Complete with pre-amp, equalizer and control tion. A low-cost amplifier control center of quality that sets performance standard at the price, kit or wired. Rated Power tput: 20 w (34 w peak). IM Distortion 1.3%. Max. Harmonic tortion between 20 & 20,000 cps at 1 db under rated power: ver Response (20 w): ±0.5 db 7-50,000 cps. 5 feedback equal-tions for LPs & 78s. Low Z output to tape recorder. 4 hi-level tched inputs: tuner, tv, tape, aux: 2 low-level inputs for proper loading of cartridges. Hum bal. control. DC superimposed on filament supply. Size: 8½"x15"x10". Matching cover available. Shipping weight, 24 lbs.

96F415. NET **49.95**

Model HF20. As above, except factory wired and tested.

96F685. NET **79.95**

96F691. Model E-1 enclosure for above models........................**4.50**

30-WATT INTEGRATED AMPLIFIER KIT

del HF32-K. Includes pre-amp., equalizer, and control section. mbines excellent HF-30 power amplifier with versatile pre-p-control section, featuring tape head and mike inputs & atch and rumble filters. SPECS—Output Power: 30 w. cont. w. peak. Freq. Resp.: ±0.1 db 15 cps —30 kc at any level n 1 mw to 30 w. Harm. Distort.: below 1% 20 cps —20 kc hin 1 db of 30 w. Inputs: Mag. Phono., tape head, mike. n & Noise Mag. phono 60 db down; tape head, 51 db down, e, 57 db down; tv. tuner aux., 75 db down. Tubes: two C83/12AX7; two EC90/6C4; four EL84; two EZ81. 4¾"Hx15"Wx ½"D. Includes cover. Shpg. wt., 24 lbs.

587. NET.. **57.95**

12-WATT INTEGRATED AMPLIFIER KIT

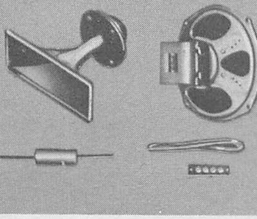
Model HF12-K. Full "front-end" facilities and true high fidelity performance. Direct tape head and magnetic phono inputs with NARTB (tape) & RIAA (phono) feedback equalizations. 6-tube circuit) dual triode for variable turnover bass & treble feedback-type tone controls. Output Power: 12 w cont., 25 w pk. IM Dist., 1.5% @ 12 w; Freq. Resp: 12 w: ±0.5 db 25 cps —20 kc. Harmonic Dist: 1% @ 12 w. Damping Factor: above 8, 20 cps —15 kc. Speaker Connections: 4, 8, 16 ohms. Tubes: 2-ECC83/12AX7; 1-ECC82/12AU7; 2-EL84; 1-EZ81. 3⅝"Hx12"Wx8¼"D. Includes cover. Shpg. wt., 14½ lbs.

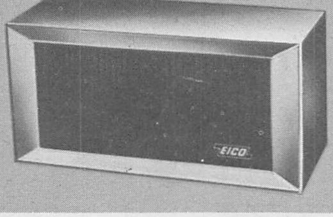
96F681. NET.. **34.95**

Model HF12. As above but factory wired.

96F684. NET..**57.95**

EICO SPEAKER SYSTEMS AND TRANSISTOR RADIO KITS





6 TRANSISTOR PORTABLE RADIO KIT

- Prealigned transformers
- Plug in transistors
- Easy to assemble
- No test instruments needed

EICO
ALL TRANSISTOR

EICO SPEAKER SYSTEM

Model HFS1. Two-Way Speaker System. Jensen compression tweeter and heavy-duty 8'' woofer. Freq. Response: Woofer ±4 db 80-1800 cps; Tweeter, ±2 db 2800-10,000 cps. Crossover Region: 1800-2800 cps; 4 db gradual rise in response when tweeter level controls set to introduce no attenuation. Imped.: 8 ohms. Power Handling Capacity: 25 w. Birch factory-built cabinet 11''x23''x9''D. Wt., 25 lbs.

96F671. NET.. **39.95**

Model RA6K. Portable. Provides unusual sensitivity, selectivity, and high undistorted sound output. An efficient 4x6" oval PM speaker driven by a 250 milliwatt push pull output stage supplies satisfying big-set volume and tone quality. Features include planetary vernier tuning (7:1 reduction), high impedance earphone jack, and built-in rod-type antenna. Kit construction includes plug-in transistor sockets and prealigned transformers. Housed in a simulated tan leather carrying case with retractable handle. Size: 8½" long x 4½" high x 2½" deep. Less batteries. Shipping weight, 3 lbs.

96F666. NET.. **29.95**

49F056. Battery, Type VS305. **NET**.. **1.43**

DYNAKITS

PAM-I PREAMPLIFIER KIT

Low noise, high gain preamplifier kit with full control facilities. Pre-assembled printed circuit board reduces wiring time to under 6 hrs. Patent-pending feedback circuitry for low distortion and consistent performance. 4 AC convenience outlets. 6 inputs for high and low level magnetic phono, radio, TV, tape, plus option for tape head or extra phono position. Equalization for RIAA, LP, and 78 rpm records. Low impedance (1000Ω) output. Bass and treble controls with true flat setting—up to ±15 db of boost and/or cut at 30 cps and 15 kc. Midband unaffected. Takes power from other amplifiers with power socket. Gain at 1000 cps—500 through RIAA input, 10 through radio, tape, or TV inputs. Under 0.05% IM distortion at 1.5 v out. Under 3-microvolt equivalent input noise on RIAA position. Freq. resp. flat ±1 db to 100 kc. Tubes: 2 12AX7 (or ECC83), 1 selenium rect. 12x6x2¾'' Bone White Cabinet. Wt., 7 lbs.

96F418. NET.. **34.95**

96F420. As above, but Brown.............. **34.95**

MARK IV AMPLIFIER

Mark IV. 40 watt amplifier kit. Dynaco circuitry. 40 watt continuous 90 watt peak. Gives less than 1% dist. at 40 watts and less than .05% at 1 watt. Freq. resp.: ±.5 db from 10 cps to 40 Kc. Sensitivity: 1.3 volts RMS input for 40 watts out. Hum & Noise is 90 db below 40 watts. Output imp.: 4, 8, & 16 ohms. Tube comp.: EL-34, (2) 7199 & GZ-34. Power: 115 watts. Size: 5"x14"x6½". Wt. 20 lbs.

96F429. NET. Including cover...... **59.95**

MARK III AMPLIFIER

Mark III. 60-W amplifier kit. Dynaco circuitry. 60 W. at under 1% IM distortion; less than 0.5% below 50 W; about 0.04% at avg. listening levels. Under 1% harmonic distortion within 1 db of 60 watts at freq. between 20 cps & 20 kc. Freq. resp. better than ±0.5 db between 6 cps & 60 kc. Resp. at any level up to 60 W., ±0.1 db at 20 cps to 20 kc. Excel. transient resp. on pulses, square waves, etc. Noise better than 90 db below max. 4-, 8-, & 16-ohm outputs. Tubes. 1 6AN8, 2 KT-88 GZ-34, selen. rect. Extra premium KT-88 tubes supplied in matched pairs. Cover, tubes, parts incl. 9x9x6¾''. 28 lbs.

96F419. NET. Including cover...... **79.95**

PAS-2 STEREO PREAMPLIFIER KIT

A unique printed circuit design using patent-pending circuit made famous in the Dynakit monophonic preamplifier. Includes 2 independent high-gain, low noise preamplifier control channels, complete stereo facilities, including the unique Dyna Blend Control, and built-in full wave power supply. Increased gain is 60 db. through phono or tape head inputs, permitting 1 volt output from 1 millivolt signal. Bone-white vinyl finish. Overall size: 13x4x8''. 11 lbs.

96F432. NET.. **59.95**

96F433. As above, but Brown finish.... **59.95**

STEREO 70 AMPLIFIER KIT

Moderate-power, high performance amp. Power Output: 35 watts continuous; 80 watts peak each channel. Freq. response: ±0.5 db from 10 cps to 40 KC. Power response: 20 cps to 20 KC without exceeding 1% distortion within 1 db of 35 watts. IM distortion: less than 1% at 35 watts. Sensitivity: 1.3 volts rms input for 35 watts output. Power consumption: 175 watts. Bright nickel chassis, vinyl coated charcoal brown cover. Size: 13x9½x6½''. Shpg. wt., 32 lbs.

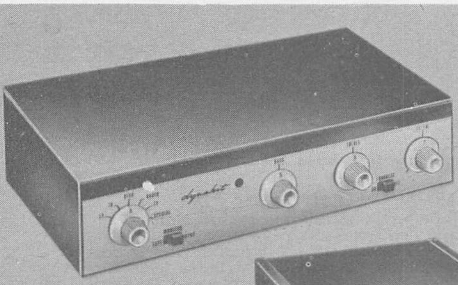
96F430. NET.. **99.95**

"DYNATUNER" FM TUNER KIT

Features low noise, non-critical drift free tuning and distortion lower than in broadcast monitor equipment. It has lowest distortion at the point of maximum tuning. The chassis includes space for a multiplex adapter and the circuit bandpass will enable full fidelity multiplex reception. Four undercoupled IF coils are pre-aligned to the point where the tuner can be operated immediately on assembly prior to complete alignment. Planetary drive system eliminates dial cord stringing. Wide band design eliminates need for AFC. Tuning eye simplifies tuning. Front panel volume control is separate from on/off switch. 117V AC, 60 cps. 55 Watts. Size: 13x8x4".

96F434. NET.. **79.95**

Note: All DYNAKITS are available in Factory-Wired models on special order. Write for prices.

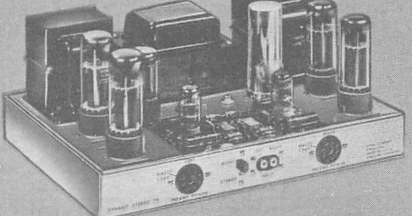


PAM-1

PAS-2

FM TUNER

MARK III



STEREO 70

AT6
Autoslim
Type A

GARRARD RECORD CHANGERS

4-SPEED AUTOMATIC TURNTABLE

Model AT6. Features new dynamically counter-balanced tubular tone arm with adjustable counterweight. Gram scale built into arm for precision setting of tracking weight. Completely separate manual and automatic controls. Oversized turntable. Heavy torque and flywheel action to insure silent operation and reliable, accurate speed. New interchangeable spindles, with convenient short spindle for playing records singly. Precision 4-pole shaded motor with shielding plates. AT6 can be locked against motorboard with thumb screws for moving or portability. Mounting dimensions and cabinet space required: 14½" left to right; 12½" front to rear; 4½" above and 2⅜" below top of motorboard. Additional 1½" required at rear of arm and on right side for clearance of counterweight. Fawn & White. Complete with line cord, 2 audio cables, plug-in shell, standard and manual spindles, 45 rpm adaptor. Less base cartridge and 45 rpm automatic spindle. 100-130 VAC, 60 cycle. Shpg. wt., 12 lbs.

73F777. NET.................................**54.50**

73F778. LRS5 45 rpm auto. spindle for above. **NET**..............................**3.80**

● *NEW* AUTOSLIM

Autoslim/P Automatic Manual Intermix 4-Speed Record Changer. Features a graceful new tone arm with plug-in shell. Only 6½" in height overall. The new tone arm with bayonet fitting, takes plug-in shells. Extra sensitive stylus pressure control in the cast aluminum tone arm insures correct tracking pressure at all times. Unified control panel has completely separate positions for playing records automatically or individually. Intermixes any size or sequence of records with separate removable spindles. Four pole shaded "Induction Surge" motor, with dynamically balanced rotor, provides constant speed without hum or vibration. Leads are connected to the unit with a built in Amplok plug (for AC) and a female twin phono socket, mounted on the unit plate (for audio) 100-130 volts, 60 cycles AC. Fully wired for stereo with 4-pin/5 wire system. Dimensions: 14¼" left to right, 12⅛" front to rear, 4⅜" above and 2⅞" below top of motor board. Gray and silver. Less base, cartridge and 45 rpm automatic spindle Shipping Weight: 9 lbs.

73F776. NET.................................**39.50**

73F778. LR55. 45 rpm automatic spindle for above. **NET**..............................**3.80**

GARRARD PROFESSIONAL RECORD CHANGER

Type A. The 6 lb. dynamically balanced turntable is cast and polished. Constructed in two pieces separated by foam center disc. Completely shielded top and bottom with specially designed and oriented plates. Provides quiet, on-speed performance regardless of load or voltage changes. Other features include finger adjust, knurled knob mounting springs. No tools necessary to mount. Fully wired for stereo with 4-pin isolated 5-wire system, which utilizes a separate connection to ground the unit to the amplifier. Fawn Color with contrasting white and lustrous metal. Required cabinet clearances: 12¼" back to front, 15" wide, 2⅝" below and 5¾" above top of motor board. Add'l 1½" required at rear of pick-up arm and opposite counterbalance wt. For use on 100 to 130V, AC 60 cycle. Complete with line cord, 2 audio cables, plug-in shell, standard and manual spindles, 45 RPM adapter. Less base cartridge and 45 automatic spindle. Shpg. wt., 19 lbs.

73F772. NET.................................**79.50**

Model LRS3. 45 rpm automatic spindle for above.

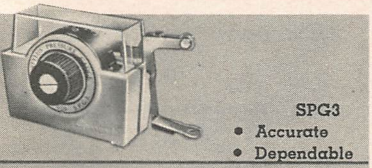
73F713. NET **3.80**

GET A CARTRIDGE FOR A PENNY! SAVE UP TO $23.51

Buy any one of the above Garrard Record Changers and get your choice of a Stereo Cartridge for ONLY 1c.

Choose any one of the Sonotone, G.E., or Shure Cartridges listed below and save up to $23.51.

Model AT6 with cartridge. Specify your choice of cartridge. **73F800.** Changer and cartridge. **NET** **54.51**	**Autoslim** with cartridge. Specify your choice of cartridge. **73F801.** Changer and cartridge. **NET** **39.51**	**Type A** with cartridge. Specify your choice of cartridge. **73F802.** Changer and cartridge. **NET** **79.51**
SONOTONE STEREO CERAMIC CARTRIDGE Model 8TA4-SD **Reg. Price 10.29**	**G. E. STEREO CARTRIDGES Model VR-227** **Reg. Price 16.61**	**SHURE STEREO CARTRIDGES Model M7D** **Reg. Price 23.52**



Or choose any other cartridge listed in this catalog for ONLY 1c except Shure cartridge M3D 50F510.

BASES

FOR TYPE A & MODELS 88/98

Stk. No.	Type	Finish	NET
73F715	B8M	Mahogany	4.95
73F716	B8B	Blonde	4.95
73F757	B8W	Walnut	4.95
73F722	M8	Mtg. Board	2.25

FOR AT6, AUTOSLIM & 210

Stk. No.	Type	Finish	NET
73F765	B10M	Mahogany	4.95
73F766	B10B	Blonde	4.95
73F767	B10W	Walnut	4.95
73F768	M10	Mtg. Board	2.25

SPG3 PRESSURE GAUGE

Has large, legible scale, visible thru clear plastic window. Gram markings easily legible. Can be used either to check weight of tone arm or set predetermined weight. 5 gram separate brass weight supplied, is used as a standard to "zero" unit for accuracy. Plastic scale pan avoids damage to styli. Has swivel balance to guarantee sensitivity. Shpg. wt., ½ lb.

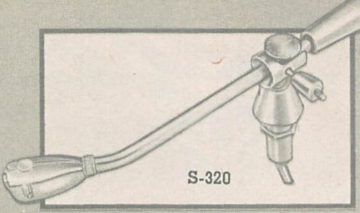
73F771. NET..............................**2.95**

NEWARK TRANSCRIPTION PLAYER

Deluxe Four-Speed unit plays records in 7, 10, 12 and 16" sizes. Meets requirements of broadcast studios. etc. Powerful 4-tube, push-pull high gain amplifier and 8" Alnico V PM speaker. Detachable cover can be used as baffle. Has transcription pick-up arm with turnover crystal cartridge. Separate volume and tone controls. Fabricoid covered plywood case. Size: 17x13x9". 110-120 volts, 60 cycles AC. Shpg. wt., 17½ lbs.

73F604. NET.................................**52.95**

B-12H


S-320

K-34H

REK-O-KUT TURNTABLES AND ACCESSORIES

3-SPEED 12" TURNTABLE

Model B-12H. 3 speed turntable, 33-1/3, 45 and 78 RPM. Noise level 57 db below recording avg. Custom built hysteresis synchronous, lifetime lubricating motor. 45 RPM hub built-in. Single selector knob speed selection. "Off" positions adjacent to each speed permits turntable to be shut off and disengaged without passing thru other speeds. Compensation adjustment built in for slight speed variation. Pilot light "On/Off" indicator. Silvertone aluminum finish. Size: 17¾"x16". Height above deck 3", below 6¼". Shpg. wt., 20 lbs.

74F612. NET **149.95**

CARTRIDGE SHELLS

Model PS-20L. Fits arms S-260, and S-320.
74F639. NET **5.95**
Model PS-20. Fits arms S-120 and S-160.
74F652. NET **5.95**

STEREO TONE ARMS

New design guarantees high quality performance. Features: Permanently attached plug-in cable, single hole mtg., balance control and isolated counterweight. Model S-320 also features exclusive Omni-Balance to insure complete balance in all planes with any cartridge.

Model S-320. 12" Arm.
74F637. NET **34.95**
Model S-260. 16" Arm.
74F638. NET **36.95**

BASES WITH MOTOR BOARDS

Model BW-1. Walnut finish. For B-12H, and N-33H.
74F668. NET **16.95**
Model KB. Walnut finish. For K-34H, and K-33H.
74F669. NET **14.95**

TURNTABLE KITS

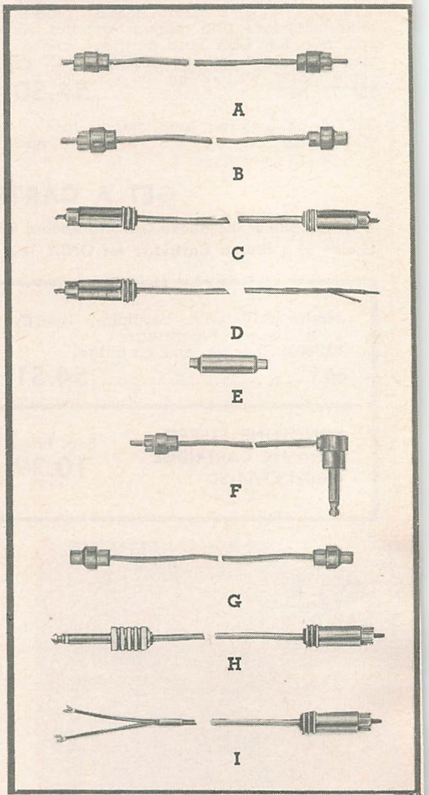
Model K-34H. Two speed 33 and 45 RPM, belt driven turntable. Hysteresis synchronous motor provides perfect rotational accuracy. Noise level is 57 db below average recording level. Shifts from 33 to 45 RPM at the flick of a finger. Features Rekothane continuous belt drive system. Modern design makes it ideal for terraced bookshelves and built-ins. Chassis deck: 12⅝x19". Min. cab. size: 13"x21" deep. Shpg. wt., 15 lbs.
74F629. NET **69.95**

Model K-33H. 33⅓ RPM turntable similar in design to Model N-33H except it is in kit form with complete assembly instructions.
74F628. NET **59.95**

MOLDED-ON CONNECTING CABLES

A complete line of connecting cables for audio use. This Lo-capacity shielded connecting cable now permits lengths of up to 30 feet. Features MOLDED-ON plugs, molded with high impact material to resist breakage. NOMINAL CAPACITY is 18MMFD PER FOOT. All are flexible shielded except * unshielded. 2-cond. cable.

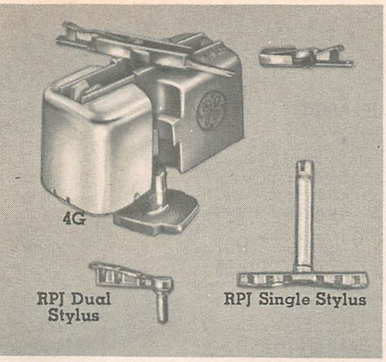
Stk. No.	Fig.	Lgth.	One End	Other End	NET
39F800	A	18"	Phono pin plug	Phono pin plug	.53
39F801	A	36"	Phono pin plug	Phono pin plug	.62
39F802	A	72"	Phono pin plug	Phono pin plug	.79
39F1752	A	10'	Phono pin plug	Phono pin plug	.90
39F1750	A	20'	Phono pin plug	Phono pin plug	1.71
39F1751	A	30'	Phono pin plug	Phono pin plug	2.34
39F803	B	18"	Phono pin plug	Phono jack	.62
39F804	B	36"	Phono pin plug	Phono jack	.70
39F805	B	72"	Phono pin plug	Phono jack	.88
39F1753	B	10'	Phono pin plug	Phono jack	1.02
39F1754	B	20'	Phono pin plug	Phono jack	1.84
39F1755	B	30'	Phono pin plug	Phono jack	2.52
39F807	G	18"	Phono jack	Phono jack	.82
39F808	G	36"	Phono jack	Phono jack	.91
39F809	G	72"	Phono jack	Phono jack	1.09
39F810	F	72"	Phono pin plug	Rt. ang. phone plug	1.09
39F811*	....	10'	Rt. ang. phono pin plug	Alligator clips	.85
39F812*	....	10'	Rt. ang. phone plug	Alligator clips	1.15
39F1600	C	10'	Long Phono pin plug	Long Phono pin plug	1.15
39F1601	C	15'	Long Phono pin plug	Long Phono pin plug	1.44
39F1756	....	6'	Phono pin plug	Stripped, tinned	.65
39F1602	D	10'	Long Phono pin plug	Stripped, tinned	.97
39F1603	D	15'	Long Phono pin plug	Stripped, tinned	1.26
39F1757	D	20'	Phono pin plug	Stripped, tinned	1.77
39F1758	D	30'	Phono pin plug	Stripped, tinned	2.40
39F1604	H	6'	Long Phono pin plug	Phone plug	1.21
39F1605	H	10'	Long Phono pin plug	Phone plug	1.50
39F1606	H	15'	Long Phono pin plug	Phone plug	1.79
39F1607	H	20'	Long Phono pin plug	Phone plug	2.09
39F1759	H	30'	Phono pin plug	Phone plug	2.49
39F1608	I	10'	Long Phono pin plug	Lugs	1.03
39F1609	I	15'	Long Phono pin plug	Lugs	1.32
39F806	E		Double phono pin jack thru conn.; pin plugs (Adapter)		.59
39F825			Phono pin jack to phone plug (Adapter)		.73

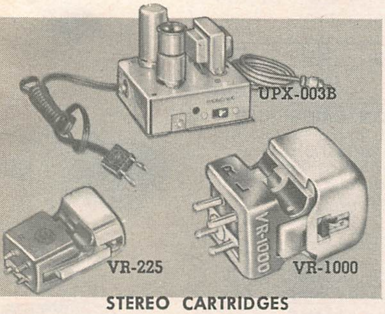


● NEW BOGEN-PRESTO TURNTABLE WITH TONE ARM

Model B61. Turntable with continuously variable speed—29 to 86 rpm, and "click-in" positions for 16, 33, 45, and 78 rpm. Heavy duty 4 pole motor. When motor is off, idler wheel is disengaged. Lever on turntable lowers tone arm to record. Tone arm has lateral and vertical suspensions independantly ball-bearing mounted for maximum compliance in both planes. Provision for raising or lowering tone arm post. Provision for adjusting stylus pressure. Lock-type 4 pin stereo/mono plug-in head for interchanging cartridges. Wow and Flutter les than 0.2% at 33 rpm; rumble 51 db below average recording level. 12", 7¾ lb. machined, zinc alloy cast turntable with heavy rubber mat. Tone arm: modified Bogen-Presto PA1 (aluminum). Sizes: 15¼x13¼", 2½" above deck, 2¼" below. For 115 VAC, 60 cps, 15 watts. Shpg. wt., 28 lbs.
73F632. NET **59.95**

G.E. CARTRIDGES AND REPLACEMENT STYLI





STEREO CARTRIDGES

These new stereo cartridges are outstanding in all four critical areas of stereo cartridge performance: Compliance-tracks precisely, not a trace of stiffness. Channel Separation—up to 30 db for maximum stereo effect. Response—smooth and flat for superior sound from 20 to 20,000 cycles per second (VR-225), and 20 to 17,000 cycles per second (VR-227). Virtually Hum-Free — triple shielded against stray currents. These stereo cartridges are specifically designed to meet your exacting stereo needs. Dependable reliability and sound ruggedness guarantee satisfaction.

Model VR-225. .0005 diamond for professional type arms.
50F333. NET........ **18.57**

Model VR-227. .0007 diamond for record changers.
50F334. NET........ **16.61**

REPLACEMENT STYLI

50F335. VR-221. .0005 diamond. **NET**....10.73
50F336. VR-222. .0007 diamond. **NET**... 9.75

VRII VARIABLE RELUCTANCE CARTRIDGE WITH CLIP-IN-TIP STYLI

Features: 4 gram pressure. "Slim" look. Independently replaceable Clip-in-Tip style. Famous G.E. precision ground diamonds and sapphires. Reduced record wear. Improved tracking ability Electrostatic Shielding. Plug-in terminals. Unaffected by temperature or moisture. Mu metal shielding and special anti-hum coils. No unwanted signals generated by vertical motion. Available in single and triple play models. SPECIFICATIONS: Frequency Response: 20 to 20,000 cps. Tracking Pressure: Professional type tone arm 4 grams. Record Changers—6-8 grams. Equalization: 6.2K for RIAA. Outpt: 22 MV Nominal at 10 cm/sec. Compliance: 1.7x10.6 CM/dyne. Mounting: Either ½" standard or 7/16". Terminals: Plug-in design.

VRII CARTRIDGES

Triple Play Cartridges

No.	Model	Styli	NET
50F208	4G-050	1&3 Mil Sapp.	**12.69**
50F227	4G-052	1 Mil Dia-3 Mil Sapp.	**17.59**
50F230	4G-053	1&3 Mil Dia.	**24.45**
Single Play Cartridges			
50F212	4G-040	3 Mil Sapp.	**9.75**
50F211	4G-041	1 Mil Sapp.	**9.75**
50F232	4G-063	3 Mil Dia.	**14.65**
50F231	4G-061	1 Mil Dia.	**14.65**
NEW VRII CLIP-IN-TIP STYLI			
Sapphire			
50F337	4G-01S	1 Mil	**2.89**
50F339	4G-03S	3 Mil	**2.89**
Diamond			
50F340	4G-01D	1 Mil	**7.79**

LOW IMPEDANCE CARTRIDGES

Designed for use with broadcast and studio equipment with low impedance inputs. Styli can be easily replaced. *Dual stylus low impedance cartridges. Finest quality styli.

No.	Type	Stylus	NET
50F178	4GS-02D	.0025 Diamond	**14.65**
50F179	4GS-01D	.001 Diamond	**14.65**
50F186*	4GD-01D-02D	.001 Diamond .0025 Diamond	**24.45**
50F192*	4GD-01S-02S	.001 Sapphire .0025 Sapphire	**12.69**

G. E. REPLACEMENT STYLI

For any type "A" cartridge or stylus assembly.

Stk. No.	Type	Stylus	NET
50F180	RPJ01D	.001 Diamond	**7.79**
50F181	RPJ02D	.0025 Diamond	**7.79**
50F182	RPJ03D	.003 Diamond	**7.79**
50F183	RPJ01S	.001 Sapphire	**2.89**
50F184	RPJ02S	.0025 Sapphire	**2.89**
50F185	RPJ03S	.003 Sapphire	**2.89**

50F193. ST-7D. .0007 Diamond stylus for GC-7, GL-7. **NET**........**9.75**
50F194. ST-7S. .0007 Sapphire stylus for GC-7, CL-7. **NET**........**3.43**

Single stylus and assembly for former RPX-040, 041, 061, 063, and 046.

Stk. No.	Type	Stylus	NET
50F220	RPJ001	.003 Sapphire	**2.89**
50F222	RPJ002	.0025 Diamond	**7.79**
50F221	RPJ004	.001 Diamond	**7.79**
50F218	RPJ005	.001 Sapphire	**2.89**

For Dual stylus. Incorporates individual replaceable stylus elements. Fits both former and RPX type, but not VRII.

Stk. No.	Type	Stylus	NET
50F215	RPJ010A	.001 Sapphire .003 Sapphire	**5.83**
50F217	RPJ012A	.001 Diamond .003 Diamond	**14.65**
50F224	RPJ013A	.001 Diamond .003 Sapphire	**9.75**
50F214	RPJ007A	.001 Sapphire .0025 Sapphire	**5.83**

● *NEW* DUAL-FUNCTION PREAMPLIFIER

Model UPX-003C. Use with phonograph or microphone. Completely self-contained, has two position Phono-Microphone switch. Uses two stages of triode amplification with a double triode special low noise/low microphonics 7025 tube. Provides RIAA compensation on "Phono", completely flat response 30-15,000 cps on "Mike". Also serves as a flat voltage preamplifier in "Mike" position for PA or tape recording applications. Power Rating: 105-125 volts AC, 50-60 cycles, 4 watts at 115 volts. Gain: 33 decibels at 1000 cycles. Output Impedance: at 30 cycles—120,000 ohms, at 15,000 cycles—1,700 ohms. Dimensions: 3⅝" wide x 3⅝" long x 3⅜" high. Shpg. wt. ½ lb.

50F206. NET........ **14.65**

NEW VR-1000 STEREO CARTRIDGES

VR-1000-7. .7 Mil diamond stereo cartridge. Recommended tracking force: 3-7 grams. Frequency response—20-20,000 cycles. Load resistance—47 K ohms. Output: 1 millivolt per cm/sec. Resistance: 1100 ohms. ½" mounting ctrs.
50F200........ **24.45**

VR-1000-5. Same as 1000-7, except .5 Mil and recommended tracking force is 1-3 grams.
50F201. NET........**29.35**

REPLACEMENT STYLI

50F202. DR-7D. .7 mil. diamond. **NET**..**12.69**
50F203. DR-5D. .5 mil diamond. **NET**..**14.65**

RECORD ACCESSORIES

GOTHAM RECORD PROTECTO PAD

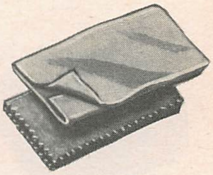
Effective preventive maintenance for both the recording and the player. Foam rubber cushion helps prevent needle damage, stops record slippage, absorbs motor rumble. Keeps records clean. 9¾ inches diameter. Wt., 8 oz.
73F586. NET........ **89c**

NEEDLE BRUSH

No. NB-1. "Kleen Needle" for Automatic Changer. Fits all changers. Designed to remove the familiar dust-blob from the stylus tip. This dust is removed by the brush each time the changer cycles. Fastened to the changer base by means of a pressure sensitive adhesive which is supplied with the unit.
76F114. NET........ **1.03**

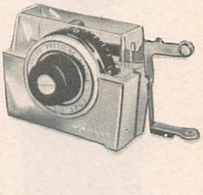
NEWARK ANTI-STATIC CLOTHS

Chemically treated red cloth siliconizes and preserves records. Completely destaticizes records, repels dust. Blue cloth treats Hi-Fi cabinets, dial glasses, picture tubes and lenses. Wt., 8 oz.
51F597. Pkg. of 2. **NET**........ **59c**



NEW SPG3 PRESSURE GAUGE

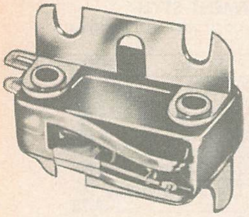
Has large, legible scale, visible thru clear plastic windows. Gram markings easily legible. Can be used either to check weight of tone arm or set predetermined weight. 5 gram separate brass weight supplied is used as a standard to "zero" unit for accuracy. Plastic scale pan avoids damage to styli. Has swivel balance to guarantee sensitivity. Shpg. wt., ½ lb.
73F771........**2.95**



NEWARK CAN SUPPLY ALL YOUR AUDIO NEEDS

SONOTONE PHONO CARTRIDGES

- High compliance compliments
- Balanced sensitivity
- Designed to eliminate dust.



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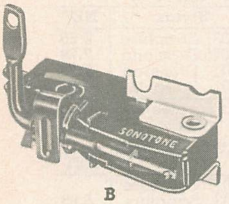

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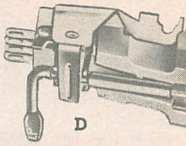

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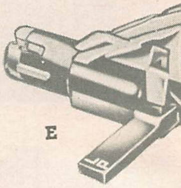

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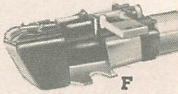

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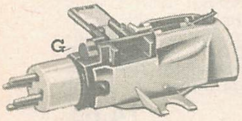

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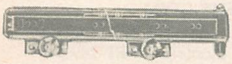

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HI-FI CERAMICS

Monophonic

Ideal replacement phono cartridges. Fit most arms, 1-v. self-equalized output; needs no preamp. 8-10 grams tracking force. Response - 20 to 20,000 cps., flat to 12,000. Compliance, 1.0x10^6 cm/dyne.

Stk. No.	Type	Fig.	Stylus	NET
50F601	1P-1S	A	.001 Saph.	2.85
50F603	1P-1D	A	.001 Dia.	5.59
50F600	2TA-S*	B	.0007 Sahp. .003 Saph.	3.32
50F615	2TA-SD*	B	.0007 Dia. .003 Saph.	5.70
50F616	2TA-LB-S**	....	.0007 Saph. .003 Saph.	3.32

*Turnover types. **Less bracket.

Type 10T. Unitized construction cuts the cost of stereo conversion. Includes "fuse-clip" mounting bracket. Output - .5 volts. Channel separation - 18db. 5-7 gram tracking pressure.

Stk. No.	Type	Fig.	Stylus	NET
50F627	10T2-S	E	.7 mil Saph. 3 mil Saph.	5.70
50F628	10T2-SD	E	.7 mil Dia. 3 mil Saph.	7.64
50F629	10T2-S77	E	.7 mil Saph. .7 mil Saph.	5.70
50F630	10T2-SD77	E	.7 mil Dia. .7 mil Saph.	7.64

Type 8Ta. Output - .3 volts. Channel separation - 20 db. Tracking force - 4-6 frams for changers. 3-5 grams for professional arms. Response - 20-1500 cps. with gradual rolloff to 20,000 cps.

Stk. No.	Type	Fig.	Stylus	NET
50F617	8TA4-S	F	.7 mil Saph. 3 mil Saph.	5.14
50F618	8TA4-SD	F	.7 mil Dia. 3 mil Saph.	7.64
50F626	8TA4-S77	F	.7 mil Saph. .7 mil Saph.	5.14

9TA STEREO CERAMIC

Response: flat ± 1 db from 20 to 17,000 cps, with deliberate rolloff to 20,000 cps. Output voltage: 35 volts. Styli are .7 mil except (*) .7 mil and .3 mil. Shpg. wt., 2 oz.

Stk. No.	Type	Fig.	Stylus	NET
50F608	9TA-S*	H	Dual Sapp.	4.91
50F609	9TA-SD*	H	Diam. Sapp.	7.64
50F611	9TA-D77	H	Dual Sapp.	9.41

SUPER HI-FI CERAMICS

Monophonic

Stylus gives you a smooth equalized response over a range of 20 to 20,000 cycles per second. Tracking forces are as low as 6 grams. Has excellent transient response. 0.5 volts output. Fits most arms. Both types are turnover. Wt., 2 oz.

Stk. No.	Type	Fig.	Stylus	NET
50F606	3T-S	C	.001 Sapp. .003 Sapp.	4.56
50F607	3T-SD	C	.001 Diam. .003 Sapp.	7.29

CRYSTAL STEREO CARTRIDGE
(Fig. D)

Designed to improve quality of budget-priced stereo phonos at low cost. Output - 2.5 volts. Channel separation - 20 db. Dual jewel tips.

Stk. No.	Type	Fig.	Stylus	NET
50F610	12THR-S	....	.7 mil- .3 mil Saph.	3.44

STEREO CONVERSION CARTRIDGES

Convert your monaural hi-fi to stereo the easy way! Response: 20-15,000 cycles ± 2.5 db. Tracking force: 5-7 g. Output: 0.5 V. Shpg. wt., 2 oz. .7 mil and .3 mil needles except * both needles .7 mils.

No.	Type	Fig.	Stylus	NET
50F627	10T2-S	E	Dual Sapp.	5.70
50F628	10T2-SD	E	Dia., Sapp.	7.64
50F629	10T2-S77	E	Dual Sapp.*	5.70
50F630	10T2-SD77	E	Dia., Sapp.*	7.64

16TA STEREO CERAMIC

Unique separate cartridge for each needle. Response: flat ±1 db from 20-10,000 cps, with smooth rolloff to 12,000 cps. Styli: .7 mil and .3 mil (*) .7 mil both.

Stk. No.	Type	Fig.	Stylus	NET
50F634	16TA-S	I	Dual Sapp.	3.53
50F635	16TA-SD	I	Diam. Sapp.	5.73
50F636	16TA-S77*	I	Dual Sapp.	3.53

VELOCITONE MARK II

Complete stereo cartridge assembly. Contains the Sonotone "9TA" deluxe stereo cartridge and matched set of equalizers. Styli are .7 mil and .3 mil, except (*) both .7 mil.

Stk. No.	Type	Fig.	Stylus	NET
50F631	9TAS-V	J	Dual Sapp.	8.67
50F632	9TASD-V	J	Diam. Sapp.	11.32
50F633	9TAD77-V	J	Dual Sapp.	13.08

PHONO ACCESSORIES

PHONO DRAWER SLIDES

Standard Type. 16½" long, extend 12½". Shpg. wt., 4 lbs.

73F615. NET per pair	1.95

Heavy-Duty Type. 18" long, extend 16". Shpg. wt., 5 lbs.

73F616. NET per pair	3.45

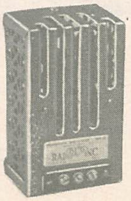
ROBINS PHONO AIDS

Phono Turntable Pads. Thick foam rubber turntable mat cushions records, helps prevent static electricity charge. Wt., 8 oz.

76F115. PC-10. 10". **NET**	.84
76F116. PC-12. 12". **NET**	1.10

Phono Changer Covers. Transparent, fits most units. Wt., 1 lb.

76F117. CC-1. For VM, Webcor	1.28
76F118. CC-2. For Garrard, Thorens, Audiogersh	1.28
76F119. CC-3. Turntable cover, Size: 22x16½x9".	1.65



BUD WO-6A PHONO OSCILLATOR

Wireless phono oscillator. May be used for playing records through radio set—without interconnecting wires. Transmits directly to clear channel on radio from record player. Will play through any number of radios up to 50 feet away—simultaneously. Tone and volume regulated from radio. For 110-120 volts, 60 cycles AC. 5¼x3x2⅛". Wt., 3 lbs.

51F335. NET	**11.81**

WALCO DISC COVERS

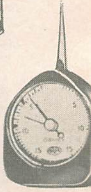
Durable protective sleeves for records prevents scratching of delicate grooves when sliding from envelope. Contour bottom slips easily inside original jacket. Seals out dust and moisture. Made of soft, pliable polyethylene. Wt., 1 lb.

51F598. Pkg. of 15-10" sleeves. **NET**	**88c**
51F599. Pkg. of 12-12" sleeves. **NET**	**88c**

WALCO STATI-CLEAN

All-around protection and assurance of longer record life. Stops dust attraction, cuts needle noise, cleans. Spray on. Wt., 1 lb.

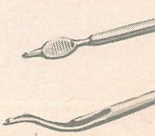
51F588. NET	**88c**



SCHERR STYLUS PRESSURE GAUGE

Precision dynamometer for measuring stylus pressure. Easy to use, merely place indicator arm beneath cartridge and raise, extra indicator hand remains at maximum reading until reset by knob on dial face. Calibrated from 2 to 15 grams each side of center. Size: 1½"Wx4"L; shpg. wt., 1 lb.

50F039. NET	**11.65**



JENSEN CONVENTIONAL NEEDLES

"All Purpose". Durosmium. Plays standard and microgroove records.

51F311. NET	**59c**

"Concert". Durosmium tip. Flexible shank. For 78 rpm records.

51F313. NET	**59c**

"Royal Jewel". Sapphire tip. For 78 rpm records.

51F314. NET	**1.47**

REPLACEMENT TONE ARMS AND CARTRIDGES
ASTATIC CARTRIDGES

DIRECT REPL. PLUG-IN CART.

Assures excellent transient response and low distortion. Frequency response extends from 30 to 15000 cps. Tracking force is 6 grams. Has flip-over mounting bracket. .001'' stylus for 45 and 33⅓ RPM, .003'' stylus for 78 RPM records. x-Diamond tip.

Stock No.	Type	Code	Replacements For Models	NET
61F056	91T	1 and 3 mil	EV76S, Webcor A1919, Webster V8-2D.	2.32
61F057	91TX	1(x) and 3 mil	EV 76DS, Webster V8-2D	5.85

TURNOVER TWO NEEDLE CARTRIDGES

For 78, 45, and 33-1/3 RPM records. †Ceramic elements immune to temp. and humidity. All others are Rochelle Crystal. Sapphire needles included, 1 mil for microgroove and 3 mil for 78 RPM. Replacement code*: 1-RCA; 2-Webster; 3-Ronette; 4-Philco; 5-V-M; 6-Sonotone; 7-Magnavox; 8-Admiral; 10-Web. F22; 11-Web. R1-A200; A-204; 13-RCA 75475. Shipping wt.: 4 oz.

Stock No.	Type	O.P. Volts	* Code	Response CPS	NET
50F353	40-T	1.0	1,2,3	50-6000	4.09
50F351	40-TB	1.0	2,4	50-6000	4.97
50F394	41-T†	.6	1,5	50-5000	5.59
50F805	41-TB†	.6	1,4,7, 5	50-5000	5.88
50F398	55-T†	.7	1,5,6 7,4,8	30-15000	4.67
50F807	57-T†	.7		30-15000	5.59
50F808	62-TB†	1.0	3,4,5	50-7000	5.88
50F350	62-TY†	1.0	Jen.	50-7000	4.68
50F388	66-TY†	3.0	1,Jen.	50-5000	3.83
50F810	66-TB†	3.0	4,5,7	50-5000	5.29
50F811	66-TS†	3.0	2,5	50-5000	4.26
50F812	81-T†	1.0	1,4,5	30-15000	2.32
50F365	81-TB†	1.0	1,4,5, 6,7,	30-15000	2.91
50F814	81-TX†	1.0	1,2,5	30-15000	4.67
50F815	89-T†	1.3	1,5	30-15000	2.91
50F816	89-TBX†	1.3	1,4,5, 6,7,8	30-15000	7.03
50F817	89-TB†	1.3	1,5,6, 7,8	30-15000	3.50
50F818	89-TX†	1.3	1,5	30-15000	6.44
61F060	118	.75	2,5, 3,4	30-13000	3.79
61F061	120	3.0	2,3, 5,4	30-11000	3.79
50F819	124	3.0	2,3	30-11000	3.79
50F821	310-TS	3.0	5	30-11000	3.21
50F822	312-T	.75	1,5	30-13000	3.21
61F062	314-TS	3.0	1,5,4	30-11000	3.20
61F064	406	3.0	10	30-5000	4.67
50F825	409†	.7		30-15000	5.59
61F065	410	.8	13	50-6000	3.82
61F066	420	3.0	2,8,7, 4,5,3	30-11000	3.20
61F067	422	.75	2,8,7, 4,5,3,	30-13000	3.50
61F068	424	3.0	11	30-11000	3.82

MICROGROOVE SINGLE NEEDLE

For 33-1/3 and 45 RPM records. All contain 1 mil sapphire needle. *Ceramic elements immune to temp. and humidity. All others are Rochelle Crystal. Replacement code +: 1-American; 2-Webster; 3-RCA; 4-Sonotone; 5-RCA 74067; 6-RCA 74625; 7-Philco; 8-V-M; 9-Ronette. 4 oz.

Stk. No.	Model No.	O.P. Volts	+ Code	Response CPS	NET
61F070	40-1	1.0	1,2	50-10000	3.81
50F829	50-1	.5	7	30-10000	5.59
61F072	51-1*	.7	1,3,2,4	30-15000	4.35
61F073	62-1	3.0	3	50-5000	2.91
50F826	89-1*	1.3	5	30-15000	2.50
50F827	89-1D*	1.3	5	30-15000	6.03
50F828	310-1	3.0	....	30-11000	2.91
61F074	408	.8	1,5,6	50-6000	2.62
61F075	414-1	3,0	1,3 7,9,8	30-11000	2.62

STANDARD SINGLE NEEDLE

For 78 RPM use. All are of Rochelle Crystal. +A cartridge having sapphire needle. All others use the Astatic N4-3 conventional needle. Replacement *code: 1-Webster; 2-Magnavox; 3-RCA; 4-Admiral; 5-Philco; 6-Turner; 7-V-M; 8-American; 9-401A RCA; 10-403J RCA; 11-Airline. 4 oz.

Stk. No.	Model No.	O.P. Volts	* Code	Response CPS	NET
50F358	2	2.5	1,2	50-4000	5.29
50F355	4	1.4	10	50-4500	2.62
50F356	6	.6	10	50-4500	2.62
61F076	12	4.0	1	50-5000	2.62
61F077	12U	4.0-1.25	3,1,4 5,6,7	50-5000	2.91
50F360	24	1.0	10	50-4000	2.91
50F362	26	3.5	10	50-4000	2.91
50F363	32	3.5	10	50-5000	2.62
61F078	66-3	3.0	8,1 5,7	50-5000	2.91
61F079	401	1.4	9	50-4500	3.50
50F369	402	.7		50-10000	4.67

ALL GROOVE SINGLE NEEDLE

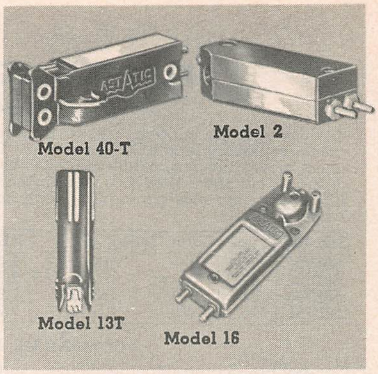
Convenient single needle cartridges play 78, 45, and 33-1/3 RPM records. +Have 2 mil needle for standard and microgroove, and sapphire needle included. All others use the N4-2 conventional all groove needles. *Ceramic elements are immune to temp. and humidity. All others are Rochelle Xtal. Replacement @ code: 1-Webster; 2-V-M; 3-American; 4-Turner; 5-RCA; 6-Admiral; 7-Sonotone; 8-Ronette.

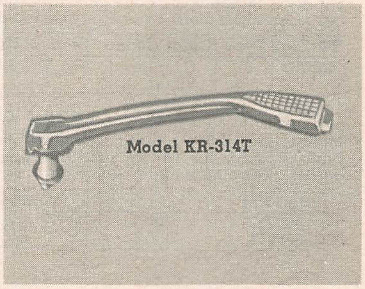
Stk. No.	Type	O.P. Volts	@ Code	Response CPS	NET
50F391	16	3.5	1,2	50-5000	2.32
50F381	22	3.0	1,2	50-5000	2.32
61F082	40-2+	1.0	3,1, 6,2	50-10000	3.82
61F072	51-1*	.7	3,5, 1,7,2	30-15000	4.35
50F392	51-2	.7	1,2,3 6,8	30-10000	4.35
50F831	59-2*	.7		30-10000	5.00
50F832	60-2	1.0	3,5 6,8	50-5000	4.12
50F387	66-2+	3.0	3,2	50-5000	2.91
50F835	414-2	.3	8	30-11000	2.62
61F085	416-2+	.75	3,6,8	30-13000	3.21

NEWARK MAINTAINS SEVEN GIANT WAREHOUSES

TO INSURE FASTEST DELIVERY FROM STOCK.

MAKE NEWARK YOUR ONE POINT SOURCE.





STEREO PLUG-IN CARTRIDGES

25 db channel separation, two ceramic elements. and four terminal contacts. X-Precision natural diamond tip. Rest sapphire tip. Both styli—one .7 mil & one .003 tip. Shpg. wt., 4 oz.

Stock No.	Model No.	O.P. Volt	Response CPS	NET
50F838	9-7B	.5	20-15000	4.27
50F842	13AT	.3	30-20000	4.67
50F843	13ATX	.3	30-20000	8.20
61F050	13T	.5	20-15000	4.09
50F346	13TX	.5	20-15000	6.44
50F836	13TB	.5	20-15000	4.67
50F837	13TBX	.5	20-15000	7.03

STEREO-MONO CRYSTAL CARTRIDGES

Stereo-mono crystal cartridges with round spindle and metal needle. Two Ceramic elements and four terminal contacts. Needle pressure 8gr. Speed RPM: Stereo and all. (*) RCA replacement. Wt. 4 oz.

Stk. No.	Type	O.P. Volts	Response CPS	NET
50F844	70TS*	2.0	50-10000	4.27
50F845	74TS*	2.0	50-10000	4.27
50F846	76TS*	2.0	50-10000	4.67
50F847	80TS	.8	50-15000	4.41
50F848	86TSB	.8	50-15000	5.00

ASTATIC PHONOGRAPH PICKUPS

Model KR-314T. Pickup. High output turnover cartridge. For self-replacement and direct replacement where ruggedness at low cost is required. Usable on phonos with low clearance in lid. Includes mtg. hardware and arm rest. Wt., 8 oz.

50F314. NET **4.09**

Model B-310T. Phono Pickup. New! Sturdy! Ideal to update older phonos. Pressure-cast aluminum, gold finish tone arm. Cartridge output, 3.0 V.; freq. range, 30-11,000 cps. 10 oz.

50F312. NET **5.85**

Model 8-D. Easy, all-speed replacement for Webcor changers 246, 255, 256, 262, 264, 3A6, 355, 357, 363, 364. Turnover cartridge 40-TB. Shpg. wt. 8 oz.

50F302. NET **8.63**

ELECTRO VOICE CARTRIDGES

MONAURAL CERAMICS

Replacement for plug-in crystal and ceramic replaceable-needle cartridges. To select model needed, match the color code or model number. New E-V plug-in cartridge slips into existing mount. Each has 2 needle tips.

Stk. No.	Type	Color Code	Styli	NET
50F731	51-1	Red	1S/1S	**2.32**
50F732	52-2	Green	2.3S/2.3S	**2.32**
50F733	53-3	Black	3S/3S	**2.32**
50F741	*76	White	1S/3S	**2.32**

Ceramic Plug-in cartridges. Output, 1 volt. Tracking force, 5-8 grams. No mounts needed for models 81, 81DS, 83-1, 76, 76DS. Shipping weight: 3 oz.

Stk. No.	Type	Color Code	Styli	NET
50F734	56	Blue	1S/3S	**2.32**
50F735	56DS	Orange	1D/3S	**5.85**
50F740	*76DS	Pink	1D/3S	**5.85**

*Replacement for Webcor plug-ins.

COMPATIBLE STEREO MONAURALS

Compatible Stereo Monaurals are ceramic plug-in cartridges replacement for monaural cartridges. To choose the proper styli, match color code or model number. Combines both cartridge and needle for wide range and low distortion for stereo or monaural. Offers high compliance and excellent tracking. Response flat from 20 cps-15 kc, output 1V.

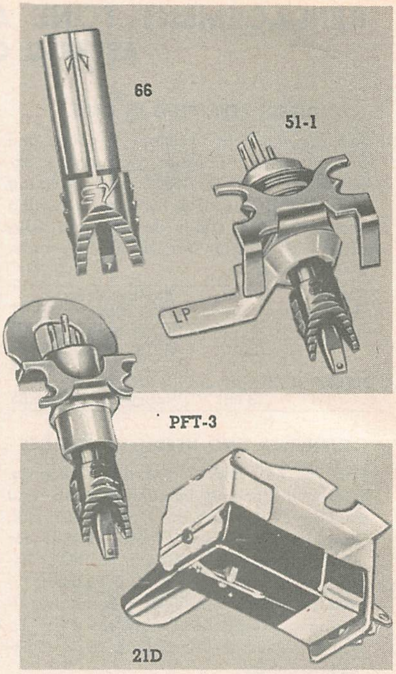
Stk. No.	Type	Color Code	Stvli	NET
50F767	61	Orange/ Silver	.7S/.7S	**3.50**

Stk. No.	Type	Color Code	Styli	NET
50F765	66	Blue/ Silver	.7S/3S	**3.50**

PLUG-IN CARTRIDGE MOUNTS

Mounts for all E-V plug-in cartridges. Fit standard ½" and 7/16" mounting centers. All have 3 terminals: for monophonic operation, two outside terminals are strapped together. Shipping weight: 3 ounces.

Stk. No.	Type	Operation	Use With	NET
50F757	PFT-3	Fixed	51-1, 52-2, 53-3, 61, 61DS	**.59**
50F758	PT-3	Turnover	56, 56DS, 66, 66DS	**.59**



20 SERIES COMPATIBLE STEREO-MONAURAL CARTRIDGES

COMPATIBLE STEREO CARTRIDGES

Superb for stereo and monaural. Use with any changer or transcription player. Response: 20 cps-15 kc. Less than 2% distortion. Type 21D used for 45 and 33⅓ rpm only. Type 26ST is a turnover for all speeds.

Stk. No.	Type	Tip	NET
50F723	21D	0.7 mil Diam.	**8.82**
50F751	26ST	0.7 mil Sapp. 3 mil Sapp.	**6.17**

REPLACEMENT NEEDLES

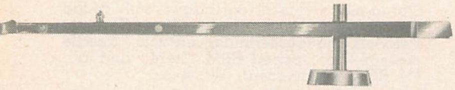
50F774. Type 2604. .7 mil sapphire tip. **NET**........1.47
50F775. Type 2605. 3 mil sapphire tip. **NET**........1.47
50F773. Type 2604D. .7 mil diamond tip. **NET**........5.85

LINEAR VELOCITY STEREO CARTRIDGE

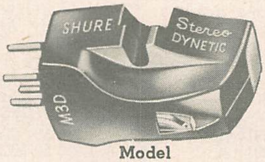
Type 26MDST. Revolutionary new Electro Voice turnover stereo cartridge for dramatically superior performance. Unit is designed to replace ALL magnetic cartridge types. Tip: 0.7 mil diamond and 3 mil sapphire. For 78, 45 and 33⅓ RPM speeds.

Stk. No.	Type	Tip	NET
50F756	26MDST	0.7 mil Diam. 3 mil Sapp.	**11.47**

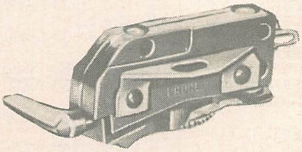
SHURE REPLACEMENT TONE ARMS AND CARTRIDGES



MODEL M232



Model
M3D



Model M232. For 12" records. Accepts Stereo and Monophonic cartridges. Tracking force 0-8 grams. Furnished with arm rest, mounting hardware, mounting template, 4 ft. cable assembly. Arm length 12 11/16". Wt. 1 lb.
50F514. NET........29.35

Model M236. As above, for 16" records. Arm length 14½". Wt., 1⅛ lbs.
50F515. NET........31.31

STEREO CARTRIDGE

Model M7D. Completely compatible for use in stereo and monaural applications. Clear hum free reproduction and trouble free operation. Response: 20-15,000 cps. Compliance: 3.5x10 —6 cms/dyne. Channel separation: more than .20 at 1000 cycles. Output level: 5 mv per channel at 1000 cps. Load imp.: 47,000 ohms. Tracking force: 4-7 grams. Fits 4 lead and 3 lead stereo record changer and transcription arms. Independent ground for each channel. Stylus: .0007" diamond.
50F511. NET........**23.52**

Model N7D. Replacement styli for above.
61F137. NET........11.76

COMPATIBLE STEREO CARTRIDGE

Model M3D. Stereo Dynetic Phono Cartridge. SPECS—Freq. Resp.: 20-15,000 cps (±3 db). Output voltage 5 millivolts at 1000 cps. Recommended Load Imped.: 47,000 ohms. Tracking Force: 3 to 6 grams. Inductance: 400 millihenries. DC Resist.: 400 ohms. Terminals: 4; independent ground term. for each channel; can use for 3 term. operation by connecting 2 grnd. terms. Channel separation. More than 20 db. Compliance: 4x10^{-6} (vertical or lateral). Standard ½" mounting centers. Stylus: .0007" diamond stylus.
50F510. NET........**44.10**

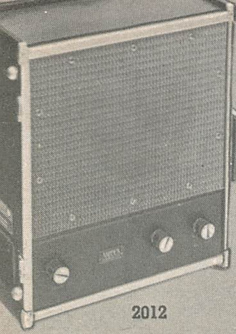
Model N3D. Replacement styli for above.
61F138. NET........22.05

REPLACEMENT CARTRIDGES

For all popular record players. †Turnover cartridges. ‡All-purpose types. .002" osmium needle. All others are standard less needles. ††Dual-Weight Cartridge with capacitor. All with C in type number are ceramics.

Stock No.	Mfrs. Type	Pres.	O.P. Volts	Range CPS	NET EA.
50F568	W22	8 gm.	1.2/1.4	10,000	**5.59**
50F579	W22-T	8 gm.	1.2/1.4	10,000	**5.88**
50F580	WC24†	8 gm.	0.6/0.6	7,000	**5.15**
50F577	W26	8 gm.	.87/1.0	8,000	**3.82**
50F575	WC38‡	9 gm.	.09	10,000	**4.41**
50F585	W68	1 oz.	1.6	6,000	**4.41**
50F587	W70‡	10 gm.	3.0/3.8	5,000	**2.91**
50F586	W78††	1 oz.	4.0/2.0	6,000	**3.27**

NEWARK MAINTAINS SEVEN GIANT
WAREHOUSES TO SERVE YOUR ELECTRONIC
NEEDS QUICKLY AND EFFICIENTLY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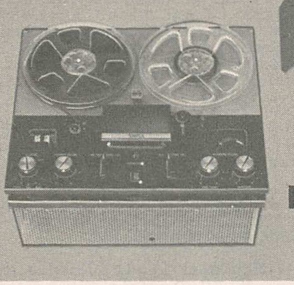
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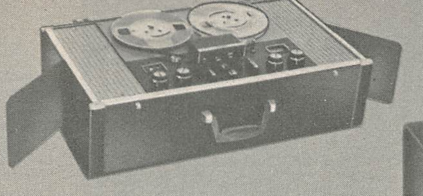
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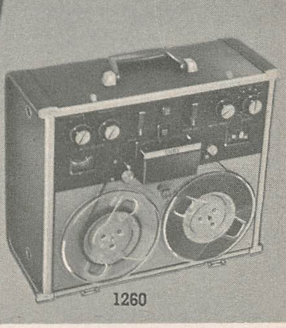
AMPEX PROFESSIONAL RECORDERS


1260

● *NEW* AMPEX 1200 RECORDERS

The fine-line 1200 is a 4 track stereophonic and monophonic recorder/player. It records 4 track stereo and mono, plays 4 track half or full track mono tapes. Ideal for professional recordings, education, business, theater, church or audio-visual systems. Features 3 separate heads-erase, record, playback eliminating dual purpose heads. Fine line alignment eliminates cross-talk between channels. Automatic shut-off turns off both mechanism and power in auto-set position. Speeds: 7½ and 3¾ ips, 50-15,000 cps on ±2db at 7½ ips. Flutter and wow: .2% input: Hi-Z mike; two Hi-Z line. Output: Playback .75V from cathode follower. Dimensions: 13x15" requires 1⅜" above deck, 6⅛" below deck). With record electronics and PB preamp.

Model 1250, un-mounted tape deck for custom-built hi-fi system.
99F620. NET **499.50**

Model 1260. In portable grey luggage 14x17½x9¼". With record electronics and PB preamp.
99F621. NET **545.00**

Model 1270. In portable grey luggage with pair of low level emplifiers and speakers.. 14x24¾x9¼".
14x24¾x9¼".
99F622. NET **645.00**

AMPEX AMPLIFIER 2012

Amplifier/speaker unit in grey portable luggage (to match 1260 and 1270 models)—pair used with 1260 or 1270, make a complete, portable high fidelity stereo system. Output: 10 watts nominal, without distortion. Frequency response: 65-10,000 cps. Signal to noise 70db below rated output. Shpg. wt. .....
99F623. NET **199.50**

600 SERIES MONAURAL TAPE RECORDERS

Series 601. Portable Tape Recorder. This is the portable recorder that will fit your professional recording needs exactly. It offers matchless performance because of these outstanding features: Separate record and playback amplifiers; Direct reading meter for accurate program levels; Separate erase, record and playback heads contained in a single housing; Low impedance output; low or high impedance microphone; inputs; Precise timing through use of Synchronous motor drive and it can be monitored during either record or playback. It is available with either full track or half track heads. Tape speed is 7½ ips. Uses std. 7" RMA reels. Freq. resp. 30 to 15000 cps at 7½ ips, —4db at 15000 cps, ±2db from 40 to 10000 cps. Signal to noise ratio over 55db. Flutter and WOW: Below 0.17%. Comes complete with case of rugged Samsonite for easy portability anywhere. 117V., 60 cps, 61 watts. Size: 8x13¾x16½". Wt., 30 lbs.
99F601. Model 654. With full track heads.
99F600. Model 652. With half track heads.
NET **595.00**

Series 601-2. Portable stereophonic recorder. Consists of standard model 601 tape transport with "in-line" stereophonic head assembly and two modified model 601 electronic chassis. Specifications: 7½" per second tape speed. Frequency response: ±2 db 50-10,000 cps. Signal-to-noise ratio: In excess of 50 db each channel. Other specifications same as 601. Samsonite case. 117 V., 60 cps. 13"W, 24½"H, 8"D. Shpg. wt., 42 lbs.
99F603. Model 672. NET **795.00**

Model 862. Reel Hold-down Knob. For series 601, 601-2 Recorders. Made of rubber. Holds reels firmly in position.
99F615. NET **70c**

Model 620. Amplifier-Speaker. An ideal companion unit to the Series 601 portable recorders. The speaker, enclosure and amplifier were specially designed to work with each other. 8" speaker with a 10 watt push-pull amplifier. Overall frequency response 65 to 10,000 cps essentially flat. 117 v, 50 or 60 cycles. 55 watts. 13x16x8". Samsonite case. 29 lbs.
99F602. NET **189.50**

● *NEW* AMPEX PR-10 SERIES RECORDERS AND REPRODUCERS

Model PR-10-1. Fully portable, 2 speed compact recorder with professional studio quality. Four position head assembly with separate erase, record and playback heads. Bias, level, equalization controls are on front panel. Large continuous duty synchronous motor. Exclusive electro-clutch system. Freq. resp. 30-15,000 cps, ±2 db @ 15 ips. Flutter and wow: .15%, output: 4 dbm into 600 ohm balance or unbalanced line, phone jacks. Two input, one per channel. Both unbalanced bridging with provision for L-Z mike or line transformer. 117 VAC. 1.84 amps. 8¾x19x6". Shpg. wt., 53 lbs.

99F731. Model PR-10-1. Type 96001-11. Full-track. Tape speeds: 3¾" and 7½". **NET** **995.00**

99F700. Model PR-10-1. Type 96001-09. Full-track. Tape speeds: 7½" and 15". **NET** **995.00**

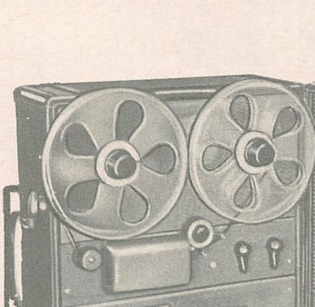
99F732. Model PR-10-1. Type 96001-03. Half-track. Tape speeds: 3¾" and 7½". **NET** **995.00**

99F733. Model PR-10-1. Type 96001-01. Half-track. Tape speeds: 7½" and 15". **NET** **995.00**

99F704. Model PR-10-2. Same as PR-10-1 except dual channel recorder. Type 96000-03. Two tracks. Tape speed: 3¾" and 7½". **NET** **1195.00**

99F705. Model PR-10-2. Type 96000-01. Two tracks. Tape speeds: 7½" and 15". **NET** **1195.00**

PR-10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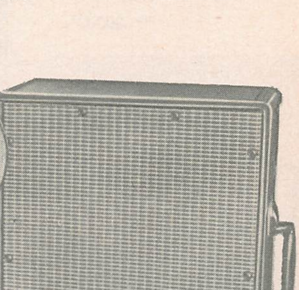
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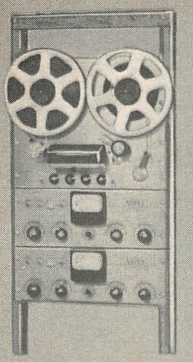
AMPEX PROFESSIONAL RECORDERS



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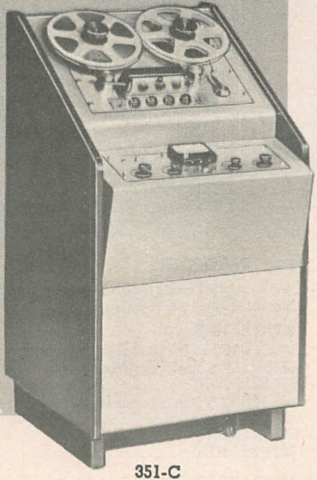

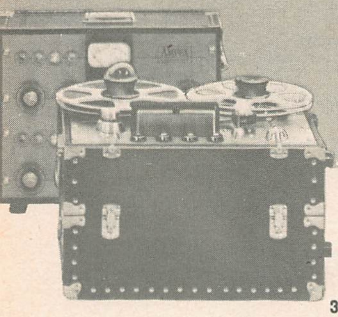

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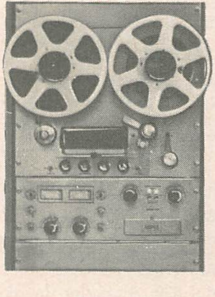

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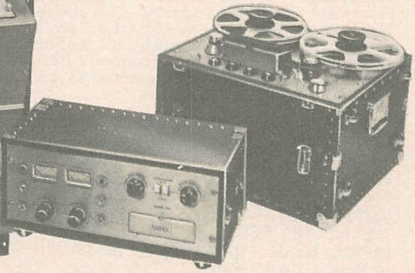

300-C

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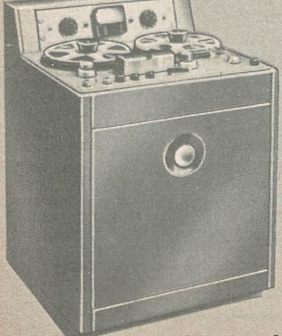


SERIES 351

Ideal for educators, recording companies, research laboratories, industry and business use. Tape speeds: 7½ and 15 ips. Freq. Response: 15 ips. ±2 db 30 to 18,000 cps. Flutter and Wow below 0.15% RMS. Starting time less than 1/10 sec. Independent Record and Playback Amps. Playback timing accuracy ±0.2%. For 117VAC 60 cps. operation.

Model 351-C. Recording Console. Size: 48x24½x28½". Shipping weight 260 lbs.
99F650. Type 30700-03. NET........**1970.00**

Model 351-U. Uncased—Rack mount Recorder. Mounted on a standard 19" wide panel with commercial notching. Tape transport 15" of rack space, 58 lbs. Elec. assembly 7", 18 lbs.
99F651. Type 30700-01. NET........**1675.00**

Model 351-P. Portable Single Channel Recorder. Size: 15½x17x20¼". Electronics case: 9x13x21". Wt., 175 lbs.
99F649. Type 30700-05. NET........**1795.00**

Note: Half track heads available for above on special order.

Model 351-2U. Uncased, Rack-mount Two-channel Recorder. With two electronic assemblies for two-channel stereo. Wt., 94 lbs.
99F653. Type 30810-01. NET........**2195.00**

Model 351-2P. Portable Two-channel Recorder. Tape transport is in a separate case as are the electronic assemblies. 120 lbs.
99F652. Type 30810-03. NET........**2325.00**

NOTE: On all models above 3¾ and 7½ ips speed units are available on special order.

Model 96510-01. Remote Control Unit. Controls 351. 352, 354 and PR10 models from a distance. With 30' cable. 10 lbs.
99F711. NET........**50.00**

Model 96520-01. Remote Control. Panel type (less cord). Above mounted on a flat plate for flush mounting. Wt., 8 lbs.
99F712. NET........**42.00**

SERIES 3200 TAPE DUPLICATOR

Produce quality half track, full track or stereophonic tape. The basic Ampex Tape Duplicator system has a Master Playback Unit, Master Amplifier Panel, Master Bias Oscillator, Master Control. This system will produce: (1) full track, (2) half-track, (3) simultaneous (double) half-track and (4) two-track stereophonic duplicates. Frequency response: ±2 db, 50 to 15,000 cycles. Signal-to-noise ratio is more than 55 db over the entire range. Flutter and wow is below 0.2% rms. in duplicates.

Model 3201-C. Master unit. 60-cycle console with lower half track and upper half track, also used for full track. Tape speeds are 30 and 60 ips. Console model includes electronics housing—will feed 1-10 slave units. 340 lbs.
99F667. Mfr. type 16295-03. **NET**........**4950.00**

Model 3202-C. Duplicator slave unit. 60 cycle console model. Full track, lower halt track, and upper half track. 30 and 60 ips tape speeds. Shpg. wt.: 270 lbs.
99F668. Mfr. type 16294-03. **NET**........**2550.00**

SERIES 354—MAGNETIC TAPE RECORDERS

New 2-channel recorder designed for professional stereophonic sound. Heads: 2 channel Erase, Record, Playback. Tape speed 7½ and 15 ips. Tape width ¼". Freq. Response: 15 ips ±2db 30 to 18000, 7½ ips ±2db 40-12000. Flutter and Wow: 15 ips below 0.15% RMS, 7½ ips below 0.2% RMS. Start 1/10 sec. Stop within 2" tape travel after button is depressed. Power requirements: 2 amps at 117 VAC, 60 cps.

Model 354-C. Console Model. 7½-15 ips. Size: 48" high x 24½" wide x 28½" deep. Shpg. wt., 200 lbs.
99F671. Type 96600-02. NET........**2185.00**

Model 354-P. Two Case Portable Model. 175 lbs.
99F675. Type 96600-03. NET........**2010.00**

Model 354-U. Unmounted Model. Rack space: tape transport 15¾", electronics 7 inches. Both have 19 inch wide panels for rack mounting. Shpg. wt., 100 lbs.
99F676. Type 96600-01. NET........**1890.00**

MODEL 300 MAGNETIC TAPE RECORDER

7½ and 15 ips. Frequency response: 15 ips: ±2 db., 30-15,000 cps: 7½ ips: ±4 db, 50-15,000 cps. Signal-to-noise-ratio: over 70 db . . . over 60 db as defined by NAB standards. Flutter and wow at 15 ips well under 0.1% rms; at 7½ ips. under 0.2%. Record amplifier with balanced or unbalanced +4 VU bridging input and playback amplifier that is adjusted for +4 VU output, 600 ohms or 150 ohms, 30-15,000 cps. For standard 19" rack or console mounting. Playback timing accuracy is 0.2% or ±3.6 seconds for a 30 minute recording. 117V, 60 cps.

Model 300-U. Single channel. Full track. Tape width is ¼". Wt., 280 lbs.
99F660. Mfr. type 7425-01. **NET**........**2395.00**

Model 300-C. Single-channel console recorder-reproducer. ¼" tape size. Full track. Flutter and wow, as above. 420 lbs.
99F661. Mfr. type 7425-03. **NET**........**2630.00**

Model 300-2U. Two channel uncased recorder-reproducer. Two track. Tape size is ¼". 60 cycles. Shpg. wt.: 280 lbs.
99F662. Mfr. type 30902-01. **NET**........**3490.00**

Model 300-2C. Two channel console recorder-reproducer. Two track. ¼" tape width. Wt., 420 lbs.
99F663. Mfr. type 30902-03. **NET**........**3815.00**

Model 300-3C. Three channel console recorder-reproducer. Three tracks. Tape width is ½". Shpg. wt., 420 pounds.
99F730. Mfr. type 30903-03. **NET**........**4698.00**

Model 300-4SSC. Four channel console with Sel-Sync, recorder-reproducer. Four tracks. ½" tape width. 420 lbs.
99F666. Mfr. type 30904-03. **NET**........**5900.00**

AMPEX RECORDERS

AMPEX PROFESSIONAL TAPE REPRODUCER

Model 352-U. Uncased. Rack-mount Tape Reproducer, plays pre-recorded tapes much as a turntable plays disc records. Since it has no erase or record facilities, valuable tapes cannot be accidentally erased. For advertising agencies, broadcast networks and advertisers; ideal for playing auditions, air checks, etc. Has full track heads, operates at 7½ and 15 ips. Freq. resp.: at 15 ips is ±2 db from 30-15,000 cps; at 7½ ips, ±4 db from 30-15,000 cps. Flutter and wow, below 0.15%. S/N ratio better than 55 db. Accommodates all reels up to 10½". 117V 60 cps. operation.
99F654. Type 9991-01. NET..**1250.00**
99F655. Type 6125-01. ....

SERIES PR-10 ACCESSORIES

Model 96980-01. SA-10 Speaker and enclosure only.
99F713. NET..120.00

Model 96950-01. 40-watt Amplifier.
99F714. NET..175.00

Model 96960-01. Portable Case for SA-10.
99F715. NET..60.00

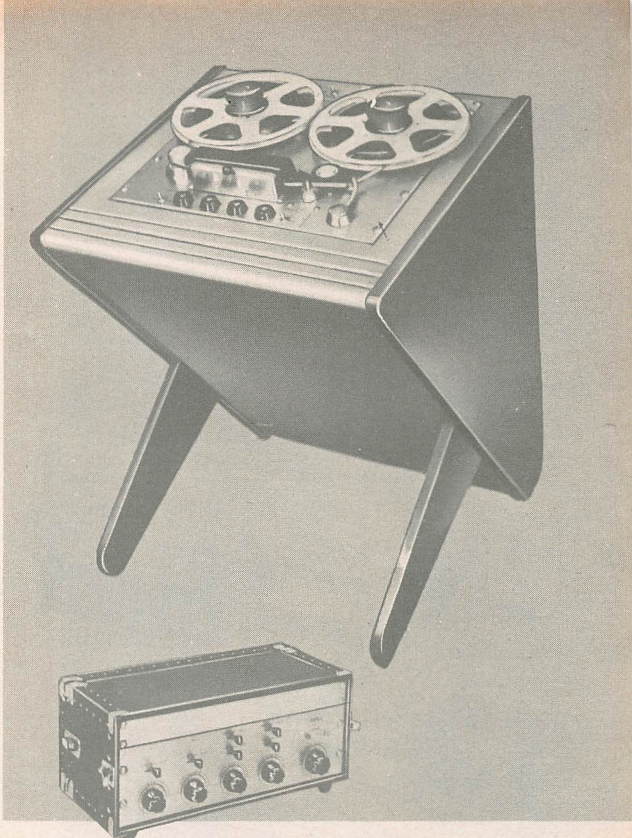
Model 96010-01. Portable Case for PR-10-1 or PR-10-2.
99F209. NET..60.00

Model 96940-1. Portable Case for PR-10 and MX-10.
99F710. NET..125.00

Model 96015-01. 4-track playback head.
99F728. NET..79.50

MX-35 MIXER—UNMOUNTED

Type 96910-01. Compact 4-position, 2-channel mixer operating from 4 low-Z microphone inputs and 2 unbalanced line inputs. Switching control permits each input to feed either left or right, or split to feed equally into both channels. For more inputs, 2 or more mixers can be coupled, with over-all master gain controlled by last unit.
99F672. Model MX-35. NET..**395.00**
99F708. Model 96900-01. MX-10 Mixer, unmounted. **NET**........395.00



AMPEX FACTORY REPLACEMENT PARTS AND ACCESSORIES

TRANSPORT PARTS

Stk. No.	Type	Description	NET
99F002	30945-01	Capstan Idler Assy. (¼")	21.60
99F003	30945-02	Capstan Idler Assy. (½")	21.60
99F012	17612-01	Brake Band Assy. (Per Set)	5.50
99F013	337-01	Brake Solenoid	9.85
99F015	958-00	Turntable Pad	.45
99F016	61460-01	Brake Band Leaf	.50
99F017	61460-02	Brake Band Leaf	.15
99F018	342-01	Reel Guard	6.90
99F023	61462-01	Turntable	3.15
99F024	257-00	Tape Guide, Reel Idler (¼")	3.20
99F028	463-00	Record Pushbutton Guard	.85
99F029	361-00	Start & Stop Pushbutton Guard	.85
99F030	020-006	Relay, 3 PDT, 115V DC	9.75
99F040	976-00	Reel Centering Adapter	.85
99F042	17952-01	Turntable Pin Kit	1.25
99F067	122-029	Lever Switch	19.80
99F068	120-006	Push-Button Switch	3.15
99F070	31210-01	Drive Motor (7½-15 ips) for 350, 351	140.40
99F071	582-016	Rectifier for 350, 351	10.75
99F074	7970-01	Brakeband Kit	2.75
99F033	475-01	Full Track Head Assy. Model 300	220.00
99F066	475-18	Full Track Head Assy. Mod. 351-354	220.00
99F035	438-01	Gate Spring	.20
99F036	457-00	Glass Tape Guide (13/16" Long)	.40
99F037	1372-00	Glass Tape Guide (½" Long)	.20
99F058	17331-01	Transformer Mike Input	22.95
99F073	012-087	Selected 12SJ7 Tube (350 Ser.)	3.25
99F041	834	Standard Tape Duplic, 30-60 ips	34.00
99F658	832	Standard Alignment Tape (15 ips)	21.95
99F659	831	3¾ ips Alignment Tape	21.95
99F619	830	Std. Alignment Tape (7½ ips)	21.95

ACCESSORIES

Stk. No.	Type	Description	NET
99F043	575-00	Strobostickers, 60 cps, 24 bar.	.10
99F044	823	Head Cleaner	1.45
99F045	825	Lubrication Oil	.95
99F072	30971-01	Hold-down Knob for EIA Reels	1.60
99F091	4100-01	Elec. Case (Sin. Channel) for 35:	45.00
99F616	9093-00	Reel Hold-down Knob	12.50
99F617	1917-00	Reel Editing Knob, 2⅞" dia.	7.30
76F060	820	Head Demagnetizer	9.95
99F624	818	Stereo Microphone Kit, Hi-Z	75.00
99F090	5727-01	Top Plate Case	75.00
99F091	4100-01	Electronic Case....1 Chan.	45.00
99F092	3935-01	Electronic Case—2 Chan.	55.00

PLUG-IN MICROPHONE PREAMPS FOR 354 AND PR-10

99F673. No. 96440-01. 40db. For High Output MIC. **NET**..........45.00
99F674. No. 96440-04. 65db. General Purpose. **NET**..................60.00

REPRODUCE PLUG-IN EQUALIZERS FOR SERIES 354 AND PR-10

Interchangeable units provide NAB, AME, or CCIR curves appropriate to the tape speed used. One per channel required.

99F680	96111-03	7½ NAB-15 NAB	9.90
99F681	96110-03	3¾ (120u-sec)-7½NAB	9.90
99F682	96112-03	7½ NAB-15 AME	14.50
99F684	96114-03	3¾ (200u-sec)-7½NAB	9.90

RECORD PLUG-IN EQUALIZERS FOR SERIES 354 AND PR-10

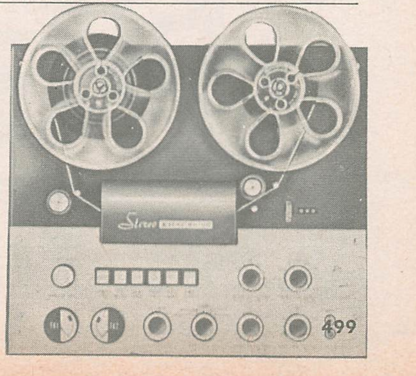
One per channel required.

99F685	96121-01	7½ NAB-15 NAB	**9.90**
99F686	96120-01	3¾-7½ NAB	
99F687	96122-01	7½ NAB-15 AME	

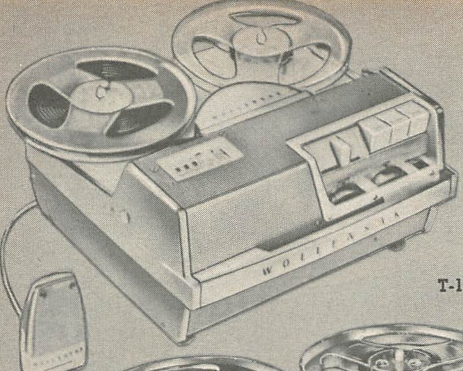
EICO

ALL-TRANSISTOR STEREO/MONO 4-TRACK TAPE DECK KIT

Model RP-100K. Complete easy to assemble kit with 3 heads, and stereo record and stereo playback amplifiers. Speeds—7½ and 3¾ IPS. Top of deck, jam-proof speed shift. Max. reel size—7 inches. Sweep type tape loading for rapid, easy loading. Winding time—1200 ft. per minute. Wow and Flutter 0.2% RMS at 7½ IPS. 0.25% RMS at 3¾ IPS. Timing accuracy— ±0.15% (±sec. in 30 minutes). Playback frequency response—6±2db 30-15,000 cps at 7½ IPS, 55 db signal to noise ratio. ±2 db 30-10,000 cps at 3¾, 50 db signal to noise ratio. Playback/Monitor outputs—Approximately 1.0 volt at 5000 ohms output impedance. Microphone Inputs Sensitivity: 1mv (suitable for dynamic mikes with high Z output connection). Electronics: 2 playback amplifiers. 2 microphone preamplifiers. 2 line recording amplifiers. 1 push-pull bias-erase oscillator. 16 transistors. 15⅞x13 5/16x7¼". Shpg. wt. 48 lbs.
96F660. NET..**299.95**
96F661. RP-100W factory wired and tested..399.95



Newark Can Supply All Your Tape Recording Needs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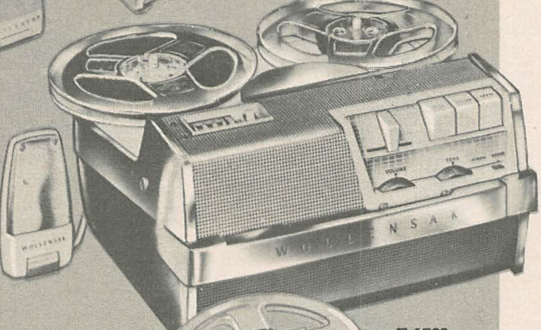
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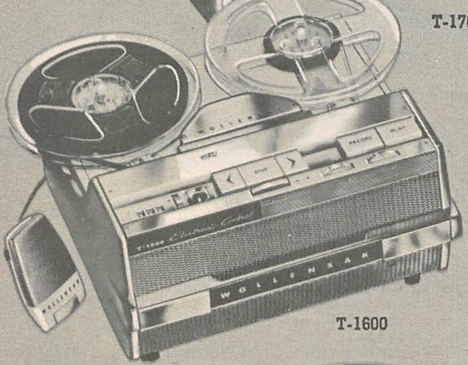
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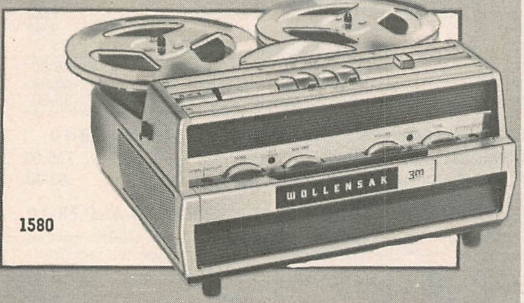
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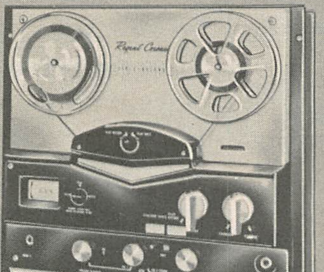
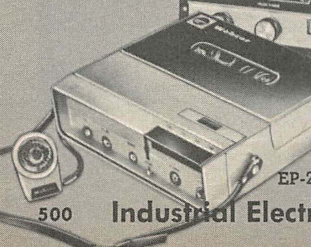

ED-2250


EP-2104

WOLLENSAK TAPE RECORDERS

DUAL SPEED HI-FI RECORDER

Model T-1500. You can record speech at the 3¾ IPS speed and hi-fi music at 7½ IPS through the professional ceramic microphone or direct from phonograph or radio. Pushbutton keyboard controls. Indicator for maintaining proper recording level. Precision index counter tells how much tape is left on reel and lets you locate any passage quickly. 5" speaker is fed by a 10-watt "Balanced Tone" amplifier that has enough power for large auditorium speakers. Freq. resp., 40-15,000 CPS. Two reels (one with tape) are included. Chrome and white case, 10¼x11x6½". Shpg. wt.: 20 lbs.

96F976. NET **167.50**

IN-LINE STEREO RECORDER

Model T-1515-4. Same features as the T-1500 but plays 2 or 4 track stereo tapes and records up to 4 separate monaural tracks on a single reel of tape. Plugs into hi-fi system, radio, phonograph or TV for stereo sound.

96F977. NET **191.50**

MOBILE TAPE RECORDER "T-1700"

Portable tape recorder that operates from both home AC outlets and 12 volt auto batteries. Dual speeds of 3¾ and 7½ IPS. 10 watt push-pull output. Power consumption: 120 v, 60 cyc.—100 watts: 12 VDC—6.5 amps. Freq. resp.: 40-15,000 cps ±3 db at 7½ IPS; 40-8,000 cps ±3 db. at 3¾ IPS. Signal to noise ratio 48 db. Retractable handle. Chrome metal cabinet. With mike, 2 reels (one with tape), battery clip, connector, lighter plug, and 12 volt power cord. 10¼x11¾x6½". Shpg. wt.: 25 lbs.

96F980. NET **207.50**

ELECTRONIC CONTROL TAPE RECORDERS

Hours of listening enjoyment without any attention whatsoever! An advanced electronics development controls recorder by means of electrical tabs anywhere on the tape.

T-1616. STEREO. Stereo head and precision track shifting mechanism enables playing 2 and 4 track stereo tape. Track dialing enables recording 4 separate monophonic tracks on single tape. Lower stereo channel with built in preamp plugs into any speaker system serving as second speaker. Freq. resp. of both channels 30-20,000 cps ±3 db at 7½ IPS. Upper channel resp.: 30-15,000 cps. ±3 db at 3¾ IPS. WOW and flutter less than .3%. Signal to noise ratio: greater than 48 db. Power supply: 115 v, 60 cycle. With mike, 2 reels (one with tape) and cords. Gray and brushed chrome. 10¼x11x6½". Shpg. wt.: 25 lbs.

96F979. NET **263.50**

T-1600 MONOPHONIC. Exclusive "Balanced Tone" emphasizes treble and bass, giving depth and hi-fidelity quality. Accepts 7" reels. 2-level indicators. Index counter. Freq. resp.: 40-15000 cps ±3 db at 7½ IPS; 40-8,000 cps. ±3 db at 3¾ IPS. Both speeds—signal to noise ratio 48 db. WOW and flutter less than .3%. With mike, 2 reels (one with tape) and cord. Gray and brushed chrome. 10¼x11x6½". Shpg. wt.: 22 lbs.

96F978. NET **239.50**

"1580" FULL STEREO TAPE RECORDER

Self contained for 2 and 4 track stereo and mono record/playback. Provides 22 watts combined output. Dual speed (3¾ and 7½ IPS), dual preamps, dual amplifiers and dual speakers. Up to 8 hours mono, 4 hours stereo playback with long play tape. All metal construction with gray and brushed chrome finish. Freq. resp.—40-18,000 cps ±3 db at 7½ IPS; 40-13,000 cps ±3 db at 3¾ IPS. With 2 mikes, 2 reels (one with tape), protective cover and accessory cords. 6½x10¼x11¾". Shpg. Wt.: 32 lbs

96F982. NET **303.20**

TF-404. Foot control for all above tape recorders. Starts and stops without manual operation in record or play positions.

96F983. NET **15.75**

Model TSC-405. Carrying Case. Vinyl slipover type. Fits all recorders listed above.

96F981. NET **6.75**

WEBCOR

MICROCORDER ALL TRANSISTOR TAPE RECORDER

EP-2104. All-transistor tape recorder that provides top quality sound reproduction. 6 transistors. Amplifier powered by 9 v. battery. Power supply: 6-1½ v. cells, 1-9v. batteries. Operates at 1⅞ and 3¾ IPS. Freq. resp.—250-5000 cycles at 3¾ IPS and normal voice freq. at 1⅞ IPS. Wide range remote control hand mike included. External input for AC current and adapter for 12 volt operation in auto and auto lighter. Ebony and polished chrome with carry strap. 8x8x2⁵⁄₁₆". Shpg. wt.: 5 lbs.

73F651. NET **139.95**

ACCESSORIES FOR MICROCORDER

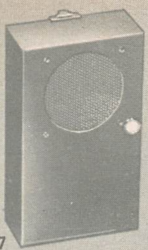
73F652. Model A-2963. Leather carrying case **13.46**
73F653. Model A-2965. 110 v. 60 cycle AC converter **17.96**
73F654. Model A-2970. 12 v. DC converter **8.96**
49F262. Burgess Z 1½ v batteries. (6 required). **EA.** .... **.11**
49F188. Burgess 2U6 9 v battery (1 required). **EA.** .... **.58**
49F530. Mallory ZM9 1½ v mercury cells. (Can be used instead of Burgess Z cells, if desired.) **EA.** .... **.56**
49F511. Mallory TR146 9 v mercury battery. (Can be used instead of Burgess 2U6, if desired). **EA.** **1.74**

STEREOPHONIC HIGH FIDELITY TAPE DECK

ED-2250. Features "Synchro Track" which permits you to record on one track, rewind, play back the recording and record a second track simultaneously. Normal voice freq. at 1⅞ IPS; 50 to 7 KC ±2 db at 3¾ IPS; 40 to 14 KC ±3 db at 7½ IPS. Two preamplifiers. 6 tubes including dual selenium rectifier. Power supply—117v, 60 c. AC; 90 watts. Heavy duty motor. Belt driven tape transport. Record safety lock. Automatic shut off. Tape counter. Size: 7½x15x15". Shpg. wt. 26 lbs.

73F699. NET **215.55**

AA-7320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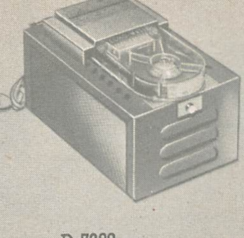
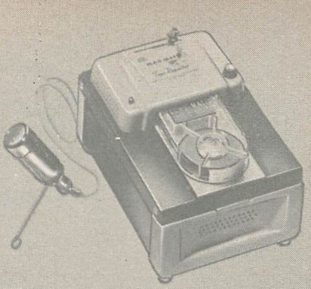

D-7300

AA-7322


PR-2331

Cousino TAPE EQUIPMENT

- Automatic voice delivery for home, office, school or factory!
- Perfect for Employee Training Programs
- Ideal for Automatic Sales Presentations
- Safe, Reliable, Automatic, Low-cost

Highly versatile and tireless automatic voice for delivery of any professional, commercial or industrial message when and where you want it. Ideal for point-of-purchase display attraction, automatic sales presentations, story and audio effects for exhibits. Best for automated voice supervision of complicated factory assembly tasks and teaching machine instruction with minimum work space and operating attention. Perfect for business and industrial employee training, safety messages, spot announcements and countless other standby intermittent or continuous duty applications.

AUDIO ANNOUNCER

Model AA-7320. All transistor Audio Announcer. Transformer powered for shock proof safety for all applications served by low level output. Three stage transistor amplifier drives telephone handsets, headphones or input of any power amplifier. Controls: off-on-volume; automatic-threading; automatic shutoff, plug connections for external start and audio output. Tape drive: heavy duty, 4-pole induction motor, 2-step pulley and o-ring belt driving a die-cast flywheel. Normally supplied for 3¾ ips. 1⅞ ips available by means of step pulley. Frequency response: 80-10,000 cps. signal to noise ratio: 45 db; flutter and wow, less than 0.4% RMS. Equipped with a simple, reliable automatic shutoff device actuated by metallic foil or silver paint applied to the tape itself. All-transistor electronics require no warmup or standby operation. Low starting load and 20 watt power consumption permit start actuation by virtually all switches and switching devices including pushbuttons, switchmats, photoelectric cell actuators, and clock timers. Providing exceptional voltage variation tolerance at 105-120 volts, 60 cycles AC. Dimensions: 5⅞"Wx9"Lx 5⅜"H. Half track magnetic head. Shipping weight, 10 lbs.

76F136. NET.......... **99.75**

POWER-MATIC SPEAKER

Model PS-4177. Accessory power speaker for group audience applications requiring a speaker source. A two-watt all-transistor amplifier and 4 inch speaker in a metal baffle designed for hinged and snap-lock cover attachment to Model AA-7320 (described above) for storage and shipment as a unit. Important features include attached connecting cord for remote operation such as counter top or speaker mounted in display, push-button flush mounted hear speaker, audio-output jack for multiple speaker installation; remote start socket and 100 watt, 117 volt, 60 cycle AC "Animation Power" outlet for synchronizing display illumination and animation. Dimensions: 5¼"Wx9"Lx2½"H. Shipping weight, 4½ lbs.

76F137. NET.......... **39.00**

ECHO-MATIC CARTRIDGE DECK

Model D7300. Compact, versatile module for adding tape cartridge convenience to existing audio installations, or continuous tape loop applications, rewiring custom-built electronics. Self-compensating double o-ring belts provide either 3¾ or 1⅞ ips. Heavy duty, 4 pole induction motor and die-cast flywheel. Flutter and wow less than .4% RMS. Self-threading transport mechanism only, with standard head bracket, pressure pad assembly and head location template, without magnetic head or electronics components, in Audio-Announcer case, without hinged cover or carry handle. Dim.: 5⅞Wx9½Lx4⅜"H. Shpg. wt., 9½ lbs.

76F138. NET.......... **75.00**

AUDIO-ANNOUNCER AND POWER-MATIC SPEAKER

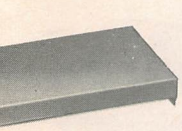
Model AA-7322. Audio-Announcer and Power-Matic speaker combination ordered and supplied as a unit, provides all the functions and operating features of the AA-7320 and PS-4177. Shipped with speaker attached to announcer. Overall dimensions: 5⅞"Wx 9"Lx7"H. Shipping wt., 14½ lbs.

76F139. NET.......... **134.75**

MAG-MATIC TAPE REPEATER

Model PR-2331. Fully automatic Mag-Matic Tape Repeater. Echo-Matic cartridge insertion threads tape, actuates microswitch to turn on motor and all-transistor record-playback electronics. Automatic gain control of microphone input eliminates monitoring of VU meter, indicator light. Controls: Playback volume control, record play lever with safety interlock, automatic metallic foil or silver paint shutoff, input jack accommodates both low level (microphone) and high level (tuner phone, etc.) signals for recording, built in 4x6" oval speaker plus external speaker output jack. Audio output: 5 watts; Freq. Resp.: 50-10,000 cps ± 3 db; signal to noise ratio: 55 db; flutter and wow: less than .3% RMS. Power consumption: 50 watts, 105-120 volts, 60 cycles AC. Dimensions with carry case handle lowered: 7¾"Wx6"Hx10¼"L. Overall Height With Handle raised: 6¾". Includes cover, supersensitive Dynamic microphone and stand. Shpg. wt., 18 lbs.

76F140. NET.......... **297.00**



SNAP LOCK COVER

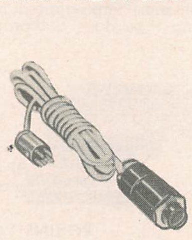
Model SL-6278. Hinged and snap-lock cover only. For models AA-7320 and 7300 deck.

76F141. NET.......... **4.50**

REMOTE START PUSHBUTTON

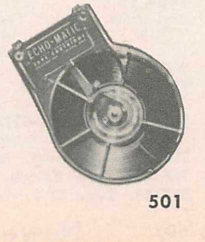
Model PC-4541. Remote start pushbutton with six foot cord that fits Models AA-7320 and 7300. Equipped with foil shutoff.

76F143. NET.......... **4.50**



ECHO-MATIC CARTRIDGES

Stock No.	Type	Running Time 3¾ ips	NET
76F144	BL-1410-40S	40 seconds	2.95
76F145	BL-1410-70S	70 seconds	3.00
76F146	BL-1410-12	12 minutes	4.60
76F147	BL-1410-15	15 minutes	4.95
76F148	1410-MT	Empty, 15 min. capacity	2.00
76F149	1430-MT	Empty, 40 min. capacity	3.00
76F151	LD	Loading disc with instructions	1.50
76F152	1435	Modified 1430-MT containing removable U-1310CC-12,12 min. Audio-Vendor mag.	12.75



FOOTMAT START SWITCH

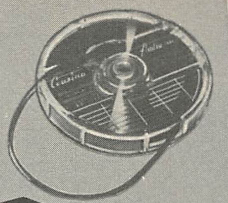
Model MS-4547. Footmat start switch equipped with a foil shutoff. For Models AA-7320 and 7300 deck.

76F142. NET.......... **22.50**

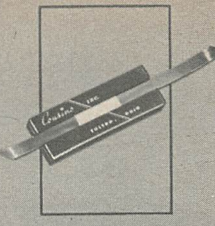
Newark Can Supply All Your Tape Recording Needs

A

B


U1310

M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Cousino TAPE AND ACCESSORIES

COUSINO AUDIO-VENDOR

Endless tape loop magazines for continuous, non-rewind recording and playback operation on most reel-to-reel tape recorders. Saves head wear with friction-free tape. Available for clockwise or counter clockwise rotation. Repeat times are for 3¾ inches per second operation.

Clockwise		Counter Clockwise			
Stk. No.	**Type**	**Stk. No.**	**Type**	**Time**	**NET**
76F167	U-1310C-3	**76F171**	U-1310CC-3	3 min.	**4.60**
76F168	U-1310C-5	**76F172**	U-1310CC-5	5 min.	**4.95**
76F111	U-1310C-12	**76F109**	U-1310CC-12	12 min.	**6.65**
76F169	U-1310C-15	**76F173**	U-1310CC-15	15 min.	**7.35**
76F170	U-1110C-30	**76F174**	U-1110CC-30	30 min.	**14.95**

COUSINO FRICTION-FREE TAPE

Cousino Friction-Free Tape for loading and reloading all endless tape loop magazines and cartridges. Double oxide coated for both "A" and "B" magnetic head positions and for double-play Moebius (half-twist) loop loading. Tape is standard ¼" width.

Stock No.	Type	Feet in Rolls	NET
76F175	ff 500-3	300	**4.90**
76F176	ff 500-6	600	**9.45**
76F177	ff 500-12	1200	**18.55**

COUSINO TAPE SPLICING KIT

Cousino Tape Splicing Kit with self-mounting splicing block, precut tabs (ST-S for reel-to-reel tape splicing) cutting blade and instructions permits fast and easy repair of broken tape.

Stock No.	Type	Description	NET
76F110	SK	Loop Splicing Kit	**1.25**
76F182	ST	Loop splice repl. tape tab card	**.25**
76F183	ST-S	Std. splice repl. tape tab card	**.25**

REEVES SOUNDCRAFT TAPE ACCESSORIES

LABELKWIK PRESSURE SENSITIVE LABELS

The easiest way to label tape boxes, film cans or any container that will accept a pressure sensitive label. Each label is 9½x⅜". Mounted on "accordion pleated" backing for easy handling.

76F128. LK-1. 50 labels. **1-19**............... **.84** **20-up**............... **.75**
76F129. LK-2. 250 labels. **1-9**.................**3.17** **10-up**...............**2.85**

CONDUCTIVE CUEING TAPE

Model CT-18. Can of 2 rolls, ¼" x 18 yards.
76F130. 1-5 Cans, Ea. **9.92**
6-11 Cans, Ea. ....**8:92** **12-up, Ea.** **8.44**

MAGNA-SEE MAGNETIC TAPE VISUALIZER KIT

Lets you see the magnetic track recorded on your tape. Making the tape affords a fast, simple and accurate way to check for head alignment, track uniformity, balance and head wear. Kit contains: ½ pint Magna-See solution—Plastic Bath-Eye piece magnifier (for close inspection of tracks)—roll of pressure sensitive tape—5 glass slides.

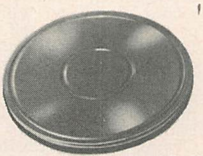
76F131.. SRK. Magna-See kit for sound recordings. **NET**........**7.20**
76F132. SRR. ½ pint replacement can of Magna-See. **NET**........**2.25**
76F133. PRK. Magna-See kit for instrumentation and video recording. **NET**.. **7.20**
76F134. PRR. ½ pt. replacement can of Magna-See for above..**2.25**

TAPE ACCESSORIES

COMPCO
7" TAPE STORAGE CAN

Model 1330. Air tight for dust and weather protection. Steel construction, handsomely finished in baked blue hammerloid enamel. Cans are ribbed for stacking. ⅞" thick. Shipping weight: 1 pound.

76F125. 1-5 Each..**.45**
6-11 Each............**.39** **12-up Each**............**.35**



TELEPHONE PICKUP

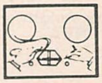
For all standard cradle-type telephones. Plugs into any amplifier to broadcast the conversation to others in the room. Use with tape recorder to make permanent record. Size: 5½" wide x ¾" high x 9¼" long. Includes 6 foot cord and phone plug. Shpg. wt., 1¾ lbs.

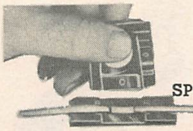
76F105. NET................................ **5.88**

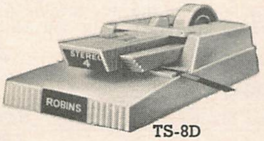
WALSCO KLEEN-TAPE

Type 335. No need to remove head cover. New formula cleaner, impregnated in long-wearing, multiple cleaning tape does a thorough job. Use just like standard recording tape. Fits all tape recorders.

769165. NET.. **1.73**



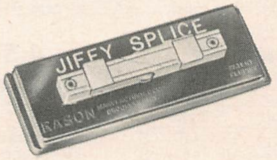

SP-4

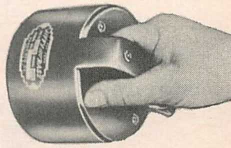

TS-8D

ROBINS "GIBSON GIRL" TAPE SPLICERS

Type TS-8D. Deluxe "Stereo 4" Tape Splicer. Cuts diagonally and trims wastes. Features "See-Thru" window for "CUT" and "TRIM." Tape guide and fingers secure tape during splicing. Integral tape dispenser with roll of ½"x100" splicing tape.

76F113. NET **8.46**
76F112. Type TS-4S. Tape Splicer similar to above, but without "See-Thru" feature. Tape is ⅜"x100". **NET**..............................**6.25**
76F121. Type TK4-STD. Accessory Kit. Has TS-4S splicer, labels, head cleaner, threader, cleaning cloth, clips. **NET**................**8.82**
76F120. Type SP-4. Hand Splicer with alignment guide..........**1.83**
76F122. Type ST-500. Splicing Tape...**36c**
50F129. Type TT-1. Tape Threader...**73c**



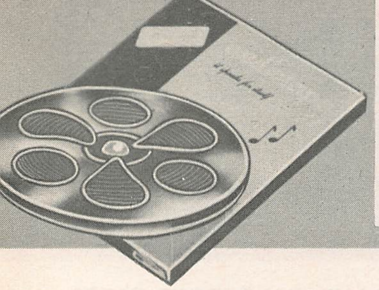


JIFFY RECORDING ACCESSORIES

Type P-30 "Jiffy-Rase" Tape Eraser. Easily erases magnetic tape without rewinding noise. Place the Jiffy-Rase over the reel of tape to be demagnetized and move it around while pressing the on-off switch. Cleans magnetized screwdrivers, pliers. or any metal where magnetism is not desired. For 100-130 volts, 25-60 cycles. Case measures 5" O.D. x 3½" H. Wt., 6½ lbs.

76F101. NET **21.17**

Jiffy Tape Splicer. For quick, professional splicing and editing.
76F100. NET **1.50**



AUDIOTAPE SOUND RECORDING TAPE

Finest professional-quality recording tape obtainable — with maximum fidelity, uniform frequency response and freedom from noise and distortion.

MASTER AUDIOTAPE

High quality magnetic recording tape which virtually eliminates "print through".

MASTER AUDIOTAPE 1.5 MIL ACETATE

Stk. No.	Type	Length	Reel	1-9, Ea.	10 up, Ea.
76F552	651-M	600′	5″ Plastic	1.79	1.62
76F553	1251-M	1200′	7″ Plastic	2.80	2.53

Stk. No.	Type	Length	Reel	1-4, Ea.	5 up, Ea.
76F555	2551R-M	2500′	10½″ Aluminum	8.16	7.35

MASTER AUDIOTAPE 1.5 MIL MYLAR

Stk. No.	Type	Length	Reel	1-9, Ea.	10 up, Ea.
76F557	671-M	600′	5″ Plastic	2.09	1.88
76F558	1271-M	1200′	7″ Plastic	3.37	3.00

Stk. No.	Type	Length	Reel	1-4, Ea.	5 up, Ea.
76F560	2571R-M	2500′	10½″ Aluminum	8.82	7.94

SUPER THIN AUDIOTAPE—TEMPERED .5 MIL MYLAR

Stk. No.	Type	Length	Reel	1-9, Ea.	10 up, Ea.
76F538	331-T	300′	3″ Plastic	1.05	.94
76F539	1231T	1200′	5″ Plastic	3.63	3.27
76F540	2431T	2400′	7″ Plastic	6.33	5.70

Stk. No.	Type	Length	Reel	1-4, Ea.	5 up, Ea.
76F541	4831T-R	4800′	10½″ Aluminum	14.67	13.20
76F542	4831T-FS	4800′	10½″ Fiberglass*	14.67	13.20

*Fiberglass reel with solid hub and 5/16″ center hole.

SUPER THIN AUDIOTAPE—.5 MIL MYLAR

Stk. No.	Type	Length	Reel	1-9, Ea.	10 up, Ea.
76F569	1231	1200′	5″ Plastic	2.29	2.06
76F570	2431	2400′	7″ Plastic	4.24	3.82

EMPTY 7″ REELS IN BOXES—2¼″ HUB—COLORED

Stk. No.	Type	Color	1-9	10 up
76F577	7PB	Clear	.49	.44
76F586	7PBR	Red	.49	.44
76F587	7PBB	Blue	.49	.44
76F588	7PBG	Green	.49	.44
76F589	7PBY	Yellow	.49	.44

76F590. 10FS. Empty 10½″ Fiberglass Reel in box. 1-4. Ea. 2.62
5 up, Ea. 2.35

AUDIOTAPE RECORDING TAPE

LR (Longer Recording) 1. Mil Mylar

For professional quality recording. "A" tape on 1 mil "Mylar" polyester film base. Immune to temperature (—50 to 150° C.), impervious to moisture, unbreakable. Tensile strength, 25,000 psi. 50% more recording time.

Stock No.	Type	Length	Reel	1-9, Ea.	10 up, Ea.
76F537	261	225 ft.	3″ Plastic	.66	.59
76F573	961	900 ft.	5″ Plastic	2.35	2.12
76F574	1861	1800 ft.	7″ Plastic	4.05	3.65

Stock No.	Type	Length	Reel	1-4, Ea.	5 up, Ea.
76F576	3661R	3600 ft.	10½″ Aluminum	9.41	8.47

Red Oxide Coating—Professional—1.5 Mil Acetate

Stock No.	Type	Length	Reel	1-9, Ea.	10 up, Ea.
76F615	151	150 ft.	3″ Plastic	.46	.41
76F613	351	300 ft.	4″ Plastic	.88	.79
76F606	651	600 ft.	5″ Plastic	1.47	1.32
76F597	1251	1200 ft.	7″ Plastic	2.29	2.06

Stock No.	Type	Length	Reel	1-4, Ea.	5 up, Ea.
76F619	2551H	2500 ft.	NARTB Hub	5.56	5.00
76F604	2551R	2500 ft.	10½″ Aluminum	7.12	6.41

LR (Longer Recording) 1.0 Mil Acetate

Stock No.	Type	Length	Reel	1-9, Ea.	10 up, Ea.
76F543	941	900 ft.	5″ Plastic	2.29	2.06
76F544	1841	1800 ft.	7″ Plastic	3.60	3.23

MAILING BOXES

Stk. No.	Type	Size	1-9, Ea.	10 up, Ea.
76F595	5M	5″	.10	.09
76F596	7M	7″	.13	.12

Model 400 Tape Head Demagnetizer. Electro magnet assembly with extended pole pieces for removing magnetism.
76F592. NET 5.88

Type 200 Head Aligning Tape. Recorded at 2000, 10,000 and 15,000 cps. at 15″ per second. 300′ length on 4″ reel. 8 oz.
76F591. NET 5.88

Self-Timing Leader Tape. Made of white Mylar. Box of 100 ft.
76F593. 3L. 1-9, Ea. 36c. **10 up, Ea.** 32c

Self-Adhesive Labels. For reel identification. 2″x½″. 30 per pkg.
76F594. 30AL. 1-9, Ea. 13c. **10 up, Ea.** 12c

AUDIO RECORDING HEAD CLEANER

Type 1HC. For cleaning recording heads on tape recorders to insure perfect contact. One ounce bottle with applicator brush.
76F567. 1-4, Ea. 42c. **5 and up, Ea.** 38c

EMPTY AUDIOTAPE BOXES

Stk. No.	Type	Size	1-9, Ea.	10 up, Ea.
76F571	5B	For 5″ Reel	.13	.12
76F572	7B	For 7″ Reel	.13	.12

RCA TAPE AND ACCESSORIES

RCA tape uses either "Mylar" or Acetate as a base material for the oxide coating. Both bases offer quality recordings and durability. However, under extremely adverse recording conditions, or if "Extra-Long" playing time is required, "Mylar" base tape is recommended. "Mylar" is a registered DuPont trademark for its polyester film.

PROFESSIONAL GRADE 1.5 MIL ACETATE

Stk. No.	Type	Length	Reel	1-11	12 up
76F810	15A-1.5	150′	3″ Plastic	.46	.41
76F800	15A-6	600′	5″ Plastic	1.47	1.32
76F801	15A-12	1200′	7″ Plastic	2.29	2.06

RCA
sound tape
sound tape

LONG PLAY 1.0 MIL ACETATE

Stk. No.	Type	Length	Reel	1-11	12 up
76F802	10A-9	900′	5″ Plastic	2.29	2.06
76F803	10A-18	1800′	7″ Plastic	3.60	3.23

PROFESSIONAL GRADE 1.5 MIL MYLAR

Stk. No.	Type	Length	Reel	1-11	12 up
76F804	15M-6	600′	5″ Plastic	1.73	1.56
76F805	15M-12	1200′	7″ Plastic	2.77	2.50

LONG PLAY 1.0 MIL MYLAR

Stk. No	Type	Length	Reel	1-11	12 up
76F811	10M-2.25	225′	3″ Plastic	.66	.59
76F806	10M-9	900′	5″ Plastic	2.35	2.12
76F807	10M-18	1800′	7″ Plastic	4.05	3.65

TENSILIZED .5 MIL MYLAR

Stk. No.	Type	Length	Reel	1-11	12 up
76F812	5TM-12	1200′	5″ Plastic	3.11	2.79
76F813	5TM-24	2400′	7″ Plastic	5.71	5.14

EXTRA LONG PLAY .5 MYLAR

Stk. No.	Type	Length	Reel	1-11	12 up
76F808	5M-12	1200′	5″ Plastic	2.97	2.68
76F809	5M-24	2400′	7″ Plastic	5.14	4.61

TAPE REELS AND BOXES

Stk. No.	Mfg. No.	Description	EACH
76F814	501C1	5-Reel Tape Chest for 5″ Reels	.75
76F815	502C1	5-Reel Tape Chest for 7″ Reels	.82
76F816	506C1	5″ Empty Reel with Box	.38
76F817	507C1	7″ Empty Reel with Box	.44

RECORDING TAPE, ACCESSORIES

TYPE 175 TENZAR—1.5 MIL

For applications requiring frequent repeat, fast starts and stop. High quality with 16 times greater tear resistance than plastic tapes. Non-drying. On clear plastic reels.

Stk. No.	Type	Len.	Reel	1-11	12-up
76F708	175-6	600′	5″ Plastic	1.57	1.41
76F709	175-12	1,200′	7″ Plastic	2.45	2.20

SUPER RUGGED TYPE 282 "SANDWICH"—1.5 MIL

Ideal for use in the language labs and audio-visual centers. Features protective, micro-thin plastic shield over oxide coating which eliminates rub-off, wears up to 30 times longer. Polyester backing insures strength and resistance to temperature and humidity changes. On clear plastic reels.

Stk. No.	Type	Len.	Reel	1-11	12-up
76F711	282-6	600′	5″ Plastic	2.03	1.82
76F712	282-12	1,200′	7″ Plastic	3.23	2.91

● *NEW* 290-6 POCKET RECORDER TAPE

Polyester base tape. Fits most pocket recorders. Extended play, double strength, .65 mil. ¼″x600′ on 3¼″ reel.

76F726. 1-11........................**1.93** 12-up........................**1.73**

LIVING LETTERS
ON 3-INCH REELS—BOXED—READY FOR MAILING

Just write in address, apply postage and mail.

Stock No.	Type	Description	Size	1-11	12-up
76F628	111-1.5	150 ft. Acetate	¼″x150′	.46	.41
76F647	150-2.25	225 ft. Polyester	¼″x225′	.66	.59
76F648	200-3	300 ft. Tensilized	¼″x300′	1.05	.94

QUICK LOAD CARTRIDGE

No. 8000. For cartridge tape recorders. Contains 560 ft. of type 150 polyester base tape.

76F706. NET EACH (Lots of 1-11)........................**2.94**
Lots of 12 or more **EACH**........................**2.65**

TYPE 24 COLORED LEADER AND TIMING TAPE

¼″ wide by 100 feet long in dispenser package.

Stk. No.	Type	Color	1-11	12-up
76F713	24-1W	White	**.59**	**.53**
76F714	24-1R	Red		
76F715	24-1B	Blue		
76F716	24-1G	Green		
76F717	24-1Y	Yellow		

TYPE 41 SPLICING TAPE

Coated one side with non-run self-sticking adhesive. ½x150″ *in metal dispenser. †non-metal dispenser.

Stk. No.	Type	Size	1-11	12-up
76F650	41½S*	½x150″	.38	.34
76F652	41½L†	½x66′	.74	.67
76F653	41¾L†	¾x66′	.99	.89
76F656	41 7/32L†	7/32″x 66′	.56	.50

TYPE 51 ALUMINIZED SENSING TAPE

For recorders with automatic "stop" and "reverse" controls. Has self-sticking, non-run adhesive on one side—foil on the other.

Stk. No.	Type	Size	1-11	12-up
76F718	51 7/32S	7/32″x150″	1.85	1.67
76F719	51 7/32L	7/32″x66″	5.88	5.29
76F720	51½L	½″x 66′	11.51	10.37

TYPE 10 LIBRARY LABELS

Provides front and edge identification on all size boxes with tear-off tabs for reels. In white, red, green, yellow and blue for coding (specify color). 50 labels per pack.

Stk. No.	Type	Color	1-11	12-up
76F721	10-W	White	**1.79**	**1.62**
76F722	10-R	Red		
76F723	10-G	Green		
76F724	10-Y	Yellow		
76F725	10-B	Blue		

EMPTY REELS IN BOXES

Supplied with index box.

Stock No.	Type	Reel Dia.	Reel	1-11 Ea.	12-up
76F700	RB-14M	14″	Aluminum-NAB	5.68	5.12
76F667	RB-10½M	10½″	Aluminum-NAB	2.94	2.65
76F669	RB-10½RPS	10½″	Plastic-opaque	2.94	2.65
76F660	RB-7	7″	Plastic	.49	.44
76F661	RB-5	5″	Plastic	.43	.38
76F663	RB-4	4″	Plastic	.36	.32
76F662	RB-3	3″	Plastic	.17	.15

EMPTY BOXES FOR TAPE REELS

Stock No.	Type	Takes Reel	1-11 Ea.	12-up
76F693	B-3	3″	10c	9c
76F694	B-4	4″	13c	12c
76F695	B-5	5″	13c	12c
76F696	B-7	7″	13c	12c
76F698	B-10½	10½″	49c	44c

END-OF-REEL TAPE CLIPS
FOR ¼″ WIDE TAPE

76F710. Per pkg. of 10........ **.23** Lots of 12 pkgs. (per pkg.)........ **.21**

Scotch
magnetic tape
EXTRA PLAY
150

"SCOTCH" BRAND RECORDING TAPES

Exclusive! All tapes feature built-in lifetime Silicone lubrication to protect recorder heads against wear and extend tape life. Free in each box: "End-of-reel" TAPE CLIP to prevent spilling.

TYPE 111 1.5 MIL ACETATE

The acknowledged standard in the recording field. Famous for flawless sound reproduction at lowest possible cost and a favorite of engineers everywhere.

Stock No.	Type No.	Size	Reel	1-11 Ea.	12-up Ea.
76F626	111-12	1200 ft.	7″ Plastic	2.29	2.06
76F627	111-6	600 ft.	5″ Plastic	1.47	1.32
76F628	111-1.5	150 ft.	3″ Plastic	.46	.41

Stock No.	Type	Size	Reel	1-11 Ea.	12-up Ea.
76F629	111-24H	2400′	NAB Hub	5.55	5.00
76F633	111-24R	2400′	10½″ Alum.-NAB	7.12	6.41
76F639	111-24RPS	2400′	10½″ Plastic-EIA	7.12	6.41

TYPE 102-1.5 MIL MYLAR

"PE" backing (formerly No. 111 AM). High strength "PE" polyester backing is combined with standard 111 Red Oxide coating. This tape exhibits remarkable stability despite sharp changes in temperature and humidity.

76F670	102-6	600′	5″ Plastic	1.73	1.56
76F671	102-12	1200′	7″ Plastic	2.77	2.50
76F672	102-24H	2400′	NAB Hub	5.75	5.17
76F673	102-24R	2400′	10½″ Alum.-NAB	7.32	6.59

TYPE 190 EXTRA-PLAY 1 MIL ACETATE TAPE

A revolutionary recording tape that gives you 50% more recording time from a conventional size reel with complete purity of sound, thanks to super-sensitive high potency oxide. Acetate base for economy.

Stk. No.	Type	Len.	Reel	1-11	12-up
76F682	190-9	900′	5″ Plastic	2.29	2.06
76F683	190-18	1800′	7″ Plastic	3.59	3.23
76F684	190-36H	3600′	NAB Hub	6.53	5.88
76F685	190-36R	3600′	10½″ Alum.-NAB	8.40	7.56

TYPE 150 EXTRA-PLAY 1 MIL MYLAR TAPE

Made with tough durable polyester backing, this tape is "weather balanced." It offers 50% more recording time. Super-sensitive high potency oxide.

76F686	150-9	900′	5″ Plastic	2.35	2.12
76F687	150-18	1800′	7″ Plastic	4.05	3.65
76F688	150-36H	3600′	NAB Hub	7.84	7.06
76F689	150-36R	3600′	10½″ Alum.-NAB	9.41	8.47

TYPE 200 DOUBLE PLAY .5 MIL TENSILIZED MYLAR

Plays twice as long as standard tape . . . Don't pamper it! Invisible polyester "muscles," conditioned by exclusive tensilized process, make it extra tough.

Stock No.	Type	Size	Reel	1-11 Ea.	12-up Ea.
76F707	200-12	1200′	5″	3.56	3.20
76F701	200-24	2400′	7″	6.20	5.59

TYPE 120 HIGH OUTPUT 1.5 MIL ACETATE

Recommended for all sensitive recording jobs. Unequaled performance in difficult recording applications. One hundred thirty-three per cent (133%) more output guarantees greater dynamic range recordings—with harmonic distortions cut to a minimum.

Stock No.	Type	Lgth	Reel	1-11 Ea.	12-up
76F640	120-6	600′	5″ Plastic	1.47	1.32
76F641	120-12	1200′	7″ Plastic	2.29	2.06

TYPE 122 HIGH OUTPUT 1.5 MIL MYLAR

"PE" backing (formerly No. 120 AM). "High Output" oxide is coated on "PE" polyester backing.

76F676	122-6	600′	5″ Plastic	1.73	1.56
76F677	122-12	1200′	7″ Plastic	2.77	2.50

TYPE 131 LOW PRINT 1.5 MIL ACETATE

First and only tape to reduce print-through to a point below noise level on even the most critical professional machines. Lowest print level of any tape on the market.

76F703	131-12	1200′	7″ Plastic	2.87	2.59
76F705	131-24R	2400′	10½″ Alum.-NAB	8.10	7.29

BURGESS MAGNETIC RECORDING TAPE

BURGESS
plastic all purpose
extra-play
MAGNETIC RE
190

Series No. 111 1.5 MIL ¼" All-Purpose Plastic

Stock No.	Type	Tape Lgt.	Reel Size	1-11 Each	12 or More
77F200	111-1.5	150′	3″	.46	.42
77F201	111-3	300′	4″	.89	.81
77F202	111-6	600′	5″	1.49	1.35
77F203	111-12	1200′	7″	2.31	2.10
77F204	111-24R	2400′	10½″M	7.19	6.54
77F205	111-24H	2400′	HUB	5.61	5.10

Series No. 150 1.0 MIL ¼" Extra-Play Polyester Mylar*

Stock No.	Type	Tape Lgt.	Reel Size	1-11 Each	12 or More
77F206	150-2.25	225′	3″	.66	.60
77F207	150-9	900′	5″	2.38	2.16
77F208	150-15	1500′	7″	3.41	3.10
77F209	150-18	1800′	7″	4.09	3.72
77F210	150-36R	3600′	10½″M	9.50	8.64
77F211	150-24H	3600′	HUB	7.92	7.20

Series No. 102 1.5 MIL ¼" All-Purpose Mylar*

77F212	102-6	600′	5″	1.75	1.59
77F213	102-12	1200′	7″	2.81	2.55
77F214	102-24R	2400′	10½″M	7.39	6.72
77F215	102-24H	2400′	HUB	5.81	5.28

Series No. 190 1.0 MIL ¼" Extra-Play Plastic

Stock No.	Type	Tape Lgt.	Reel Size	1-11 Each	12 or More
77F216	190-9	900′	5″	2.31	2.10
77F217	190-15	1500′	7″	2.97	2.70
77F218	190-18	1800′	7″	3.63	3.30
77F219	190-36R	3600′	10½″M	8.48	7.71
77F220	190-36H	3600′	HUB	6.60	6.00

Series No. 200 .5 MIL ¼" Double Length Tensilized Polyester Mylar*

Stock No.	Type	Tape Lgt.	Reel Size	1-11 Each	12 or More
77F221	200-3	300′	3″	1.06	.96
77F222	200-6	600′	4″	2.01	1.83
77F223	200-12	1200′	5″	3.60	3.27
77F224	200-24	2400′	7″	6.27	5.70
77F225	200-48RPS	4800′	10½″ (plastic 5⁄16″ EIA center hole)	14.52	13.20

*Trademark of DuPont

Series No. 141 1.5 MIL ¼" Stereo Quality Plastic

Stock No.	Type	Tape Lgt.	Reel Size	1-11 Each	12 or More
77F226	141-6	600′	5″	1.16	1.05
77F227	141-12	1200′	7″	1.95	1.77

Series No. 140 1.0 MIL ¼" Stereo Quality Plastic, Extra Play

77F228	140-9	900′	5″	1.65	1.50
77F229	140-18	1800′	7″	2.81	2.55

Series No. 131 1.5 MIL ¼" Low Print Through Professional Quality Plastic

Stock No	Type	Tape Lgt.	Reel Size	1-11 Each	12 or More
77F230	131-12	1200′	7″	2.90	2.64

Series No. 138 1.5 MIL ¼" Low Print Through Professional Quality All-Purpose Mylar*

77F231	138-12	1200′	7″	3.37	3.06

*Trademark of DuPont

ACCESSORIES

Stock No.	Type	Accessory Item	Size	1-11 Each	12 or More
77F232	LT-15	Mylar Leader Tape	150′ L. ¼″ W.	.73	.66
77F233	ST-5	Splicing Tape	150″ L. ½″ W.	.31	.28
77F234	RB-3		Clear Plastic 3″ reel	.17	.15
77F235	RB-4	Empty Reels Boxed	Clear Plastic 4″ reel	.36	.33
77F236	RB-5		Clear Plastic 5″ reel	.43	.39
77F237	RB-7		Clear Plastic 7″ reel	.50	.45
77F238	B-3		For 3″ reels	.10	.09
77F239	B-4	Empty Boxes	For 4″ reels	.13	.12
77F240	B-5		For 5″ reels	.13	.12
77F241	B-7		For 7″ reels	.13	.12
77F242	MB-4	Corrugated	For 4″ reel & box	.10	.09
77F243	MB-5	Mailing	For 5″ reel & box	.10	.09
77F244	MB-7	Cartons	For 7″ reel & box	.13	.12

RECORDING DISCS AND ACCESSORIES

AUDIODISC BLANKS

The smooth surface of Audiodiscs and the uniformity of the easy-cutting surface make these the finest blanks available.

Red Label Discs. For professional recording everywhere. Aluminum base, double sided. *1½" ctr. hole. Av. wt., 16 oz.

No.	Size	Thick	Each	Pkg. 25
77F048*	7″	.040″	1.01	22.54
77F001	10″	.040″	1.12	25.23
77F002	12″	.050″	1.83	41.40
77F003	16″	.050″	3.30	74.48

Blue Label Discs. Fine performance, to please the professional or amateur. Aluminum base, double sided. Av. wt., 16 oz.

No.	Size	Thick	Each	Pkg. 50
77F031	6½″	.027″	.39	17.64

Reference Label Discs. Meets every requirement for making test cuts, reference recordings, auditions, White paper label. Double faced discs. Av. wt., 1 lb.

No.	Size	Thick	Each	Pkg. 25
77F021	10″	.040″	.75	17.15
77F022	12″	.050″	1.12	25.23
77F023	16″	.050″	1.99	44.83

Yellow Label Discs. For commercial recording studios. Aluminum base, double sided. Av. wt., 16 oz. *Indicates 1½" center hole.

No.	Size	Thick	Each	Pkg. 25
77F009*	7″	.040″	.85	19.35
77F010	8″	.040″	.67	14.94
77F011	10″	.040″	.89	20.09
77F012	12″	.050″	1.44	32.34
77F013	16″	.050″	2.66	59.78

AUDIOPOINTS

Type 14. Dural shank needle with 87° angle. Polished sapphire tip. Designed for standard recording. Wt., 1 oz.
51F450. Short shank.
51F464. Long shank.
NET EACH **4.85**

Type 20. Dural shank 87° angle needle. Sapphire tip. For professional recorders. Microgroove only. Wt., 1 oz.
51F463. Short shank.
51F462. Long shank.
NET EACH **4.85**

Type 202. Short brass shank with polished sapphire tip. For professional or home recorders. Standard only. 1 oz.
51F452. NET EACH **3.88**

Type 34. Short brass shank with stellite cutting point. Cuts accurate groove. 1 oz. For professional or home recorders.
51F454. NET EACH **1.47**

AUDIOPOINT RESHARPENING SERVICE

We will forward needles to manufacturer for resharpening on special order.

Type	Point	1-2, Ea.	3 up, Ea.
14	Sapph.	2.50	2.25
20	Sapph.	2.50	2.25
34	Steel	.93	.84
113	Sapph.	1.33	1.20
202	Sapph.	2.17	1.95

NEWARK HAS FOR IMMEDIATE DELIVERY, THE MOST COMPLETE STOCK OF ELECTRONIC EQUIPMENT.

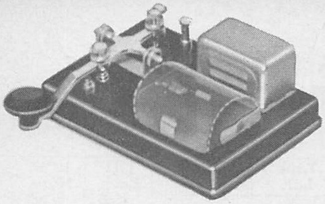
NEWARK TAPE

NEWARK
RECORDING
TAPE

Made by famous manufacturers to Newark's rigid specifications. This tape is splice-free. It is one continuous reel of the highest quality tape ¼" wide and a thickness of .5 Mil., 1.0 Mil., 1.5 Mil. Available with Acetate or Mylar base for uniform output and lower noise level. The 1.0 Mil thick tape offers 50% more recording time for the listeners convenience. Recording tape has a very high tensile strength.

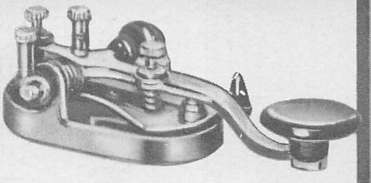
No.	Mil.	Size	Reel	1-9	10-24	25-up
76F751	1.5 Mil†	1200′	7″	1.76	1.65	1.54
76F753	1.0 Mil†	1800′	7″	2.38	2.24	2.09
76F755	1.0 *	1800′	7″	2.88	2.70	2.52
76F750	1.5 Mil†	600′	5″	1.15	1.08	1.01
76F752	1.0 Mil†	900′	5″	1.44	1.35	1.26
76F754	1.0 *	900′	5″	1.58	1.49	1.36
76F756	1. *	225′	3″	.62	.58	.54
76F757	.5 *	300′	3″	.82	.77	.72
76F758	.5 *	600′	3¼″	1.44	1.35	1.26

*Mylar †Acetate



CODE PRACTICE KEY WITH BUZZER only 1^{33}

Budget priced key for amateur and code practice groups. Adjustable to touch. Buzzer is locking type and adjustable for freq. Requires one 1½ V standard battery. Takes headsets. Less battery. 6¾"x2¾"x1⅜". Shpg. wt., 1 lb.
46FX019. NET..1.33

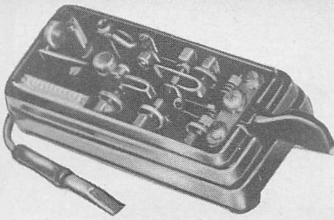


BALL BEARING SPEED KEY 2.07

Standard precision built telegraph key. Perfect for code practice and transmitting, has smooth action. Base is drilled for mounting screws. Semi-automatic keys may be plugged in. Wt., 12 oz.
46FX021. NET..2.07

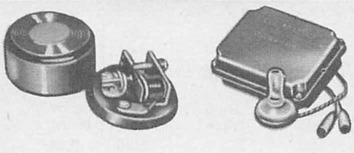
"STUDENT" SPEED KEY 60c

Perfect for code practice for beginner. Imported. Wt., 6 oz.
46FX022. NET.. .60



PROFESSIONAL SPEED MASTER KEY 10^{95}

Professional key. Semi-automatic, adjusts from 10WPM up. 8 tension and speed adjustments. Precision tooled with steel springs, cord, and tension wedge. 3½ lbs.
46FX020. NET..10.95

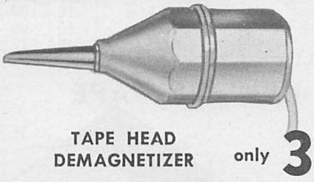


HIGH FREQUENCY PRACTICE BUZZER only 69c

Can be used with any key as an accessory buzzer. Requires 1 1½V battery. Shpg. wt., 3 oz.
46FX002. NET.. .69

CODE PRACTICE OSCILLATOR 2.87

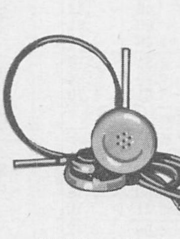
With plugs, cord, and earphone. Uses 1 1½V penlight battery. Less battery. Wt., 6 oz.
46FX023. NET..2.87



TAPE HEAD DEMAGNETIZER only 3^{27}

Remove accumulated tape head magnetization quickly and easily. For true hi-fidelity, tape heads must be demagnetized often. Will decrease second harmonic distortion and reduce noise level several db after each use. May be used on all tape heads, monaural, stereo or four track. For home and professional machines. Safe, will not burn out. Cord, plug, included. 1½"x 4½"x1½". Wt., 1 lb.
46FX001. NET..3.27

Ear Phone



2000 Ohm Headset

IMPORTED EARSETS, HEADPHONES

Magnetic type, plastic covered earhook. Long cord, standard RCA-type min. plug.
46FX006. NET.. .67

8 ohm impedance, ear hook type. 2 oz.
46FX007. NET.. .67

15 ohm impedance, ear hook type. 2 oz.
46FX008. NET.. .67

High impedance crystal set with over the ear fitting cord and plug. 2 oz.
46FX010. NET.. .80

Magnetic insert earphone, small 8 ohm insert, with cord and standard plug. 2 oz.
46FX015. NET.. .80

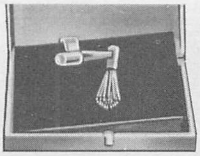
Crystal pillow receiver. Large xtal element for high input. Plastic case 2¼" x ½".
46FX005. NET..1.33

Magnetic Pillow Speaker with cord, plug, and jack. Flat plastic with contact plate to conduct sound to inner ear by by-passing ear channel. Only user hears.
46FX037. NET..1.95

2000 OHM HEADSET

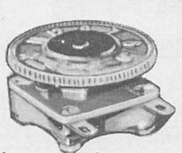
A lightweight headset, perfect for code practice sets, short wave listening, etc. Black plastic with white earcaps on spring band. Complete with long cord with standard phone tips. Shpg. wt., 10 oz.
46FX004. NET..1.33

CAMEL HAIR RECORD BRUSH



Increase record life and tone quality. A must for true fidelity on all your records. Brushes foreign matter from in front of needle. Clip fits most arms. Wt., 1 oz. Imported.
46FX030. NET.. .20

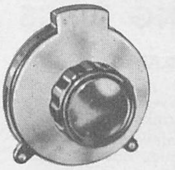
VARIABLE CONDENSERS



365 mfd, 1 gang polyvarican condenser with 1¼" clear plastic dial. For RF transistor use. 1" x 1" x ½". Wt., 2 ounces.
46FX003. NET.. .67

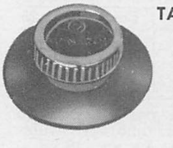
Miniature, 2 gang variable condenser. Completely enclosed in polyethylene plastic. Max. Cap.: ANT 148.1 uuF, OSC 65.2 uuF. Trim Cap.: Effective variable cap. more than 6 uuF. ¾"x¾"x7/16". Wt. 3 oz.
46F069. NET..1.47

PRECISION VERNIER DIALS

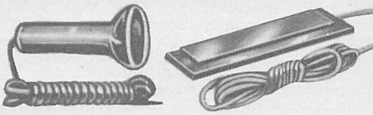


8:1 ratio vernier dials with bakelite base and nickel-silver dial plates with etched scales. Molded knob calibrated 0 to 100 in 180° rotation. For panel mtg. Wt. 10 oz.
46F070. 1½" Dia........ .83
46F071. 2" Dia. NET.... .93
46F081. 4" Dia. NET....2.67

TAPE REEL HOLDER



Black rubber reel holder to fit standard hub. Fluted knob and grooved gripper. Large rubber flange. Set of two. Wt. 5 oz.
46FX040. NET.. .53



SUCTION CUP TELEPHONE PICK-UP COIL 1.07

Attaches near the magnetic field of a telephone. No permanent connection required. Shpg. w., 12 oz.
46FX044. NET..1.07

TELEPHONE PICK-UP COIL 1.20

Record or amplify both sides of a phone conversation. No wired connections to phone. Lay pickup under any cradle type phone and connect lead to hi-imp. input of disc, wire, tape, recorder or amp. 4½x1½x¼". Sh. wt., 12 oz.
46FX039. NET..1.20

Sunburst Mike

Dynamic Mike

Hand Mike

MADE IN JAPAN

DYNAMIC MIKE WITH SWITCH 11.95

Complete with base. Output level: —45 db. Imp. 50,000 ohms. Mike size: 7" long, 1¼" dia. Shpg. wt. 1½ lbs.
46F079. NET..11.95

SUNBURST CRYSTAL LAPEL MIKE 1.93

Complete with spring lapel clip on back and plastic covered coaxial cord. Gold and black case. Shpg. wt. 1 lb.
46F080. NET..1.93

CARBON HAND MIKE 3.60

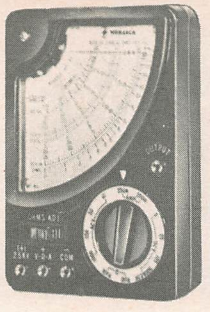
For use with citizen-band equipment, public-address systems, amateur mobile station, etc. Low internal resistance of 100 ohms. Range 70-7,000 cycles per second. Sensitivity of —50 db. Shpg. wt., 12 oz.
46FX042. NET..3.60

COMPACT PRECISION VOM'S

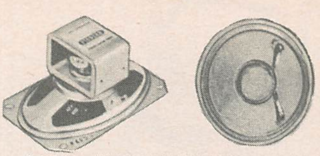
2000 ohms per volt, AC and DC. Ranges: AC and DC Complete with test leads, battery, instructions. Volts: 0-5-25-250-1000-2500 Volts, DC current: 0-500 uA, 0-250 mA. Resistance: 0-10,000 ohms, 0-1000K. (7.5 ohms and 7.5K midscale) Decibels: —20 to +16 db (0 db — 1 mW, 600 ohm line). 3¼"x4½"x1".
46F064. NET **9.27**

10,000 ohms per volt, AC and DC. Ranges: AC and DC volts: 0-6-30-120-600-1200 volts. DC current: 0-120 uA, 0-3-300 mA. Resistance: 0-30K (150 ohm center), 0-3 meg. (15K center). Capacitance: 50 uuF to 0.01 uF, 0.001 uF to 0.15 uF. Decibels: —20 to +63 db (5 ranges). 3¼"x4½"x1". Wt., 3 lbs.
46F065. NET **11.27**

20,000 ohms per volt DC, 10,000 ohms per volt AC. Ranges: DC volts: 0-5-25-50-250-500-2500. AC volts: 0-50-100-500-1000. DC current: 0-50 uA, 0-2.5 mA, 0-250 mA. Resistance: 0-6K (30 ohm center), 0-60K (300 ohm center), 0-6000K (30K center). Capacitance: 10 uuF to 0.001 uF. Decibels: —20 to +63 db. 3 lbs.
46F066. NET **13.27**



Carrying Case for both meters and leads. Has carrying handle and belt hook. Wt., ½ lb.
46F067 .... 1.47

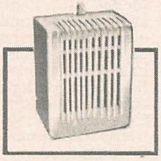


RADIO AND EXTENSION SPEAKERS

4"x6" Oval speaker. Suitable for portable radios or extension uses. Smooth, flat overall response. P.M. type. 8-ohms imped. Range: 120-8000 cps. Shpg. wt., 1 lb.
46F073. NET **1.61**

1¾" Dia. Sub-miniature speaker. Fits all types of transistor radios, phonographs, etc. 8-ohms imped. Shpg. wt., 6 oz.
46F062. NET **1.20**

NEWARK'S SPECIAL VALUES



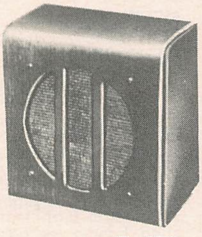
2½" PM SPEAKER IN PLASTIC BAFFLE

Small, sturdy, mahogany colored plastic baffle which houses a completely enclosed 2½" PM speaker. Baffle size: 3"x2¾"x1½". Voice coil impedance. 8 ohms. Shpg. wt., 2 lbs.
46F060. NET **2.21**

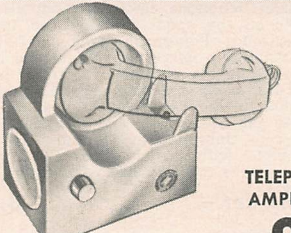
4" SPEAKER IN WOOD BAFFLE

Ideal for intercom use. 2-tone wood cabinet with enclosed back, sloping front and flat base makes it practical for wall or desk mounting. The baffle contains a fine 4" speaker with a heavy ticonal magnet. Voice coil imp., 8 ohms. Wt., 3 lbs.
46FX036. NET **2.92**

8" SPEAKER IN WOOD BAFFLE



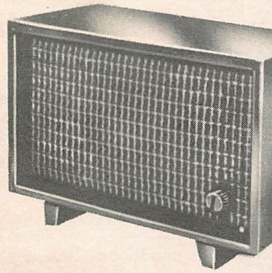
Sturdy, powerful, wide range speaker in attractive walnut baffle. Ideal for all extension uses. 8" speaker has heavy magnet structure and will deliver smooth sound from 75 to 9000 cps. 8 ohms. Wt. 6 lbs.
46FX043. NET **5.67**



TELEPHONE AMPLIFIER

9^{95}

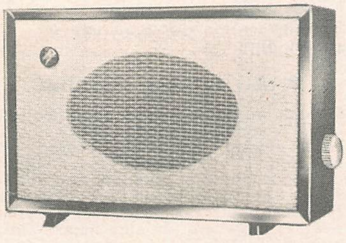
Amplifier which enables you to carry on a conversation from up to 25 feet away from the telephone. Easy to use . . . simply place the receiver in the cradle and talk. With volume control and output jack. Uses 4 std. penlight cells. 5½x5½x3". Shpg. wt. 2 lbs.
46F063. NET 9.95



4" PM SPEAKER IN CABINET WITH VOLUME CONTROL

4^{13}

Type SP-106. 4" speaker in cabinet measuring 7¾x5½x3½". Finished in rich dark walnut shades with beveled front covered with gold threaded grille cloth. Volume control. Wt., 3 lbs.
46FX041. NET 4.13



4"x6" PM SPEAKER IN FINISHED CABINET

5^{47}

A deluxe imported remote speaker unit consisting of a quality 4"x6" PM speaker in a piano finished cabinet; in rich walnut with an attractive contrasting grille cloth covering. Volume control. 9½"x6½"x3½". 3 lbs.
46FX038. NET 5.47

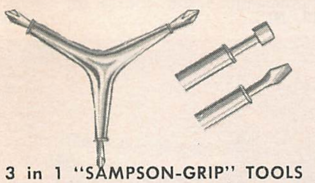
CAP SECURELY WHEN NOT IN U
MONARCH
EZ MARKER

EZmarker

Writes-Draws On Anything **8 FOR** **1^{67}**

Writes on wood, paper, plastic, cloth, metal, rubber, glass — EVERYTHING. Plastic barrel holds large ink supply. Waterproof, instant drying. Packaged 1 each of 8 colors in carton.
46F073. NET 1.67

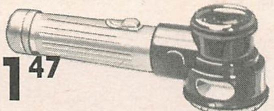
RED AND BLACK ASSORTMENT. 6 black and 2 red EZ markers in carton.
46F074. NET 1.67



3 in 1 "SAMPSON-GRIP" TOOLS

Sturdy, convenient sized tools designed for highest leverage. Manufactured of top-quality steel and insulated with plastic. 6" overall length. Screw drivers fit small, medium, and large size heads. Hex wrench has ¼, ⅜ and 5⁄16" sockets. Shipping weight 1 lb.
46F076. Phillips screw driver **NET** .... .56
46F077. Screw driver **NET** .... .60
46F078. Hex wrench **NET** .... .87

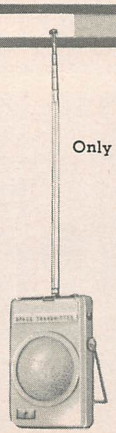
1^{47}



● *NEW* 7X ILLUMINATED MAGNIFIER

Ideal for the technician, serviceman, student, engineer and hobbyist. Fitted with two magnifying lens which look down into a calibrated measuring field. Heavy black plastic head with plated body which holds two standard "C" flashlight batteries. Supplied less batteries. Shpg. wt., 2 lbs.
46F074. NTT 1.47

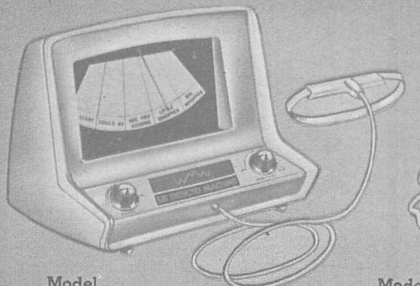
MADE IN JAPAN



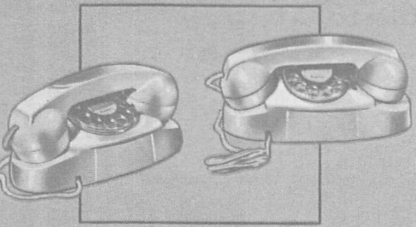
TRANSISTORIZED WIRELESS MIKE

Only **8^{80}**

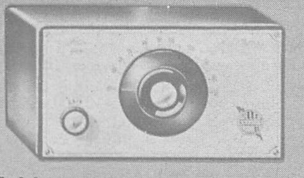
Broadcast through any radio without wired connections. Transmits on standard AM band in the 1600 kc region. Range: 100ft. With push button on-of switch and 40 inch antenna. Grey case in impact plastic. Pocket size—4" x 2½" x 1¼". Shpg. wt., 1½ lbs.
46F075. NET 8.80



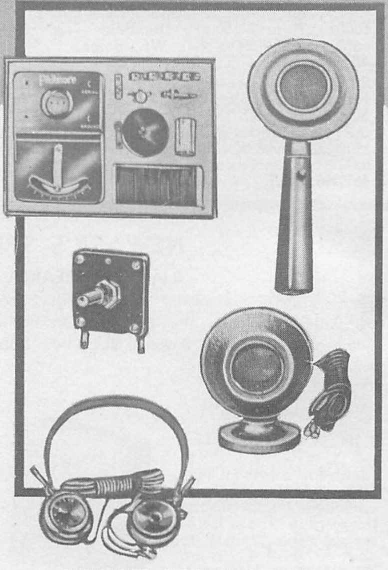
Model 234



Model 215



Model 585



ZIPEES LIE-DETECTO MACHINE

Model 234. An action packed electronic sensation that will provide hours of entertainment for both youngsters and adults. Registers emotions, feelings, reactions and works on the same method used in the professional Polygraph machine (GSR—Galvanic Skin Response). An elastic hand band sends the change in current to the indicator on the machine depending on the reaction of the person being tested. Operates on a single 9-volt transistor type battery. Unbreakable Norolon Cabinet. Complete with battery and instructions. Color: olive green. 9x8x5½". Shpg. wt. 5 lbs.
96F318. NET.......... **8.46**

MILLER HI-FI AM TUNER KIT

Model 585. Hi-Q ferrite antenna coils specially coupled provide a broad tuning characteristic. Uses no tubes and draws no power from the amplifier to which it is connected. Freedom from distortion, microphonics, and 60-cycle hum. Tuning (540-1700kc). Selectivity, 20 kc. Output from .07 to .7 volts, depending upon signal. With external antenna and ground, for 25 mile radius reception. Includes instructions, wire and hardware. Specify ebony or ivory case. 4"x7"x3½". Shpg. wt., 2 lbs.
27F575. NET.......... **19.09**
Model 595. Wired and tested.
27F586. NET.......... 23.46

Rangerhorn. Fully transistorized lightweight directional voice amplifier. Provides a complete address system. Communication range up to 1000 feet. Employs high gain telephone type microphone and dynamic speaker (Alnico V permanent magnet). Easy to operate—just press the trigger in the pistol grip and talk. Unique far listening feature by placing the horn on "mike" side. Operates on 6 std. 1½ volt batteries. 10½" long. Wt. 2 lbs
96F320. NET (Less batteries).......... **12.88**
1½ v. batteries for above (Eveready 835).
49F388. NET.......... .18

● *NEW* BRUMBERGER PRINCESS TELEPHONE SET

Model 215. Featuring real light-up dial. Dial number and phone rings. Loud and clear phone conversations can be carried on over great distances. Ideal for house-to-house communications. Works on standard flashlight batteries Can be used for permanent installations with excellent results. Compleet with wire and instalation instructions. Constructed of high impact plasic for increased durabiliy. Shpg. wt. 2 lbs.
95F569. NET.......... **6.41**
Batteries for above (4 required).
49F260. NET.......... .14

● *NEW* "THE BIG BLAST"

Futura's self containing portable transistorized megaphone is completely portable. Just squeeze the trigger and send your voice booming over distances in excess of 100 yards. Ideal for boating, playgrounds, sporting events. Lightweight 1½ lbs. Constructed of high impact plastic, featuring sling handle for easy carrying. Operates on standard flashlight batteries. Unit is 12" long with a horn diameter of 6". 4 D batteries required. Shpg. wt. 2 lbs.
95F565. NET.......... 7.13
Batteries for above (4 required).
49F260. NET.......... .14

● *NEW* FUTURA "EXECUTIVE"

Portable transistor tape recorder. Featuring single control: switch operates play, record, rewind, off and volume. Uses standard 150' magnetic tape. Sensitive crystal microphone and powerful built-in Alnico 5" speaker. Latest motor design and recording head. Completely self contained —works anywhere. In high impact plastic case. 8¼"x9¼"x3⅛". 3 batteries required. Wt. 14 lbs.
95F566. NET.......... 21.38
49F260. NET (2 required).......... .14
Batteries for above.
49F188. NET (1 required).......... .58

ELECTROSOLIDS

Spacephone. Two-way transistorized radio just 5" high. Features the lowest cost "walkie-talkie" on the market. High-impact, shock resistant unit, fully transistorized with printed circuits. Operates in 27 Mc Citizen's Band. No license, no examination needed. Effective communication range up to ½ mile. Ideal for house, office and entertainment. Uses Burgess type 2U6 9 Volt Transistor Battery. Size: 2½x5". Shpg. wt., 1½ lb.
96F319 NET (Less battery).......... **24.95**
9 Volt Trans. Battery for above.
49F188. NET.......... .95

PHILMORE CRYSTAL SET KIT

Supertone. Educational, useful—excellent reception within 25-mile radius. Xtal enclosed in a dust-proof plastic case. With all parts, hardware, instructions and headphone. Less antenna. 12 oz.
27F593. NET.......... **3.47**

PHILMORE VARIABLE CONDENSER

Wafer-type single-gang variable tuning condenser. Capacity: 365 mmf. Interleaved insulation prevents possible shorting between plates. Has std. ¼" shaft, 1½" sq., ¾" L., requires 9⁄16" behind panel. 3 oz.
27F516. NET.......... .60

TRIMM PHONES

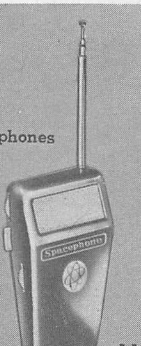
With phone-tip terms. 2000 ohms. 8 oz.
27F584. NET.......... 2.36
Single phone with headband. 1000 ohms.
27F585. NET.......... 1.29

PHILMORE JUNIOR MICROPHONE

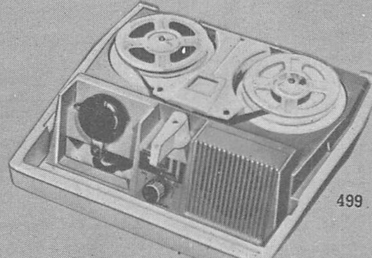
Type 500. Carbon mike designed for home broadcasting. Operates from any radio. Easy to attach, no rewiring. Has switch for cutting into programs. Sensitive, shockproof. Gray hammertone. 8 oz.
27F512. NET.......... 1.62

PHILMORE CARBON HAND MICROPHONE

Type 500H. Button switch permits cutting in and out of broadcasts, simple to install. Gray hammertone. 9-ft. cord. 8 oz.
27F513. NET.......... 2.06



Spacephones



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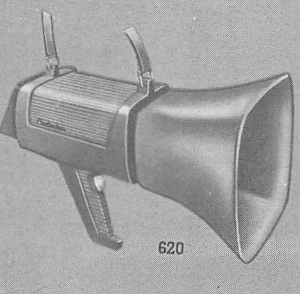

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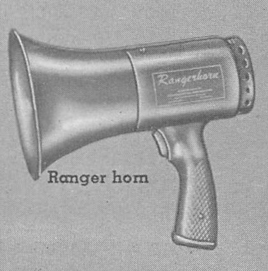


Ranger horn

RADIO COMMUNICATIONS SECTION

In the following pages you will find Newark's comprehensive selection of radio equipment, satisfying the communications needs of the radio amateur, business, industry, the private citizen, and the casual listener.

SHORT WAVE LISTENING EQUIPMENT

Short Wave Listening is an intriguing hobby. Listen to English speaking programs from all over the world. Such things as signals from ships, police, and radio "hams", can also be heard. Short wave listening affords new insights into science, geography, and history in the making. All that is required is a short wave receiver and an antenna, as shown on this page and the following pages. For further information, write Dept. JF-38 at Newark-Chicago.

BOOKS FOR SHORT WAVE LISTENERS

52F557. Better Shortwave Reception......**2.85**

53F013. World Radio Handbook.............**3.00**

53F042. How To Listen To The World....**1.50**

NATIONAL

GENERAL COVERAGE RECEIVER

Model NC-190. Covers .54 to 30 mc in 5 bands. SSB, AM, and CW. Double conversion above 4 mc, 1st IF 2215 kc, 2nd IF 230 kc. AGC, Detector for CW/SSB. "Ferrite Filter" provides 600 cycle, 3 kc, or 5 kc selectivity at 6 db down. Sensitivity 1 uv for 10 db S/N ratio. 3.2 ohm output headphone jack. Bandspread calibrated on all amateur bands 80 thru 10 meters and 13, 16, 19, 25, 31, and 49 meter foreign SW. bands. Bandspread tuning ratio 60:1. Steel chassis, ⅛" steel panel, ceramic forms for frequency stability, 8 tubes plus rect. and volt, reg. Blue steel case. Size: 15¾"W x 8¾"H x 9"D. For 105-125 VAC, 50-60 cycles, 75 watts. Shpg. wt., 28 pounds.

98F359. NET.................................**219.95**

Model NTS-3. Speaker for above.

98F358. NET.................................**19.95**

4 BAND AMATEUR AND SW RECEIVER

Model NC-60. Features coverage .55 to 31 mc. Electrical bandspread, logging scale for ease in tuning. BFO for reception of CW and SSB signals. Has built-in 5" speaker. Phones jack on front panel cuts out speaker when earphones are used. Controls: volume; bandswitch; tuning; bandspread; standby/receive switch; BFO, off/on. 4 tubes plus rectifier. Size: 13½"W x 7⅝"H x 8⅝"D. Black and grey finish. For 105/125 volts AC or DC, 25 watts. Wt., 12 lbs.

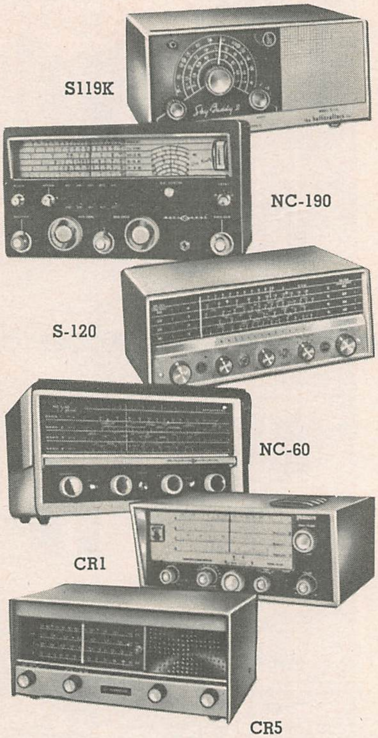
98F343. NET.................................**59.95**

HAMMARLUND

● *NEW* WORLD WIDE RECEIVER

CR-1. receiver features reception of am/cw from 540kc-30mc Superhet design. 6AS11 Oscillator, 6AS11 1st audio, 6A11 converter, 6A11 audio output, 6AS11 IF. Controls on/off/AGC, 4 pos. Band Switch, Main tuning/BFO control. 10⅜"L x 7¾"D x 15⅛"H. Green texture cabinet; Wt. 8½ lbs.

97F422. NET.................................**59.95**



HALLICRAFTERS

"SKY BUDDY" RECEIVER

Model S-119K. Kit Form, Receiver for amateur and short wave listener. Provides CW/AM reception on two short wave bands from 2-16 mc, the broadcast band, 535kc to 1620kc. Planetary Drive dial for accurate tuning. Superheterodyne Circuit. Uses 4 tubes. Diode Detector. Built-in Speaker, Headphone jacks. Controls: On-Off/Volume, Range switch, AM/CW Switch, Spkr./Phones Switch. 5x10½x7½. Wt. 9 lbs.

98F090. NET.................................**39.95**

Model S-119. As above but factory wired.

98F091. NET.................................**49.95**

ECONOMY RECEIVER

Model S-120. Ideal receiver for beginner. Covers 550-1600 kc plus SW bands including 1600 kc to 30 MC. IF 455 kc. Features: Audio output SW. Controls: Band selector, main tuning, band spread tuning, standby/receive, BFO/selectivity, AC on/off volume. 4 tubes plus Rectifier: 105/125 VDC or 50/60 cycle AC/DC—30 watts. Gray steel cabinet with silver trim. Size: 13½"W x5⅞"Hx8¾"D. Shpg. wt., approx. 11¾ lbs.

98F069. NET.................................**69.95**

PHILMORE

COMMUNICATIONS RECEIVER KIT

Model CR5-AC. Five tube beginners receiver kit covers from .55 to 30 mc. Adjustable BFO for CW. Controls: sensitivity, with AVC on/off switch; AM-CW-standby switch; volume with AC pwr switch. With instructions, less cabinet.

27F398. NET.................................**49.95**

Gray cabinet for above. 15 3/16"x6 9/16"x10".

27F399. NET.................................**9.45**

"HAM" RADIO AS A HOBBY

Actually converse with, rather than just listen to some of the ⅓ million "Hams" throughout the world. Ham Radio includes persons, regardless of age or sex who, after passing an FCC exam, may "speak" not only with voice but also with Morse Code, teletypewriters, and even television. Some "Hams" are interested only in conversation while others are interested in research, disaster work, building equipment, learning electronics, message handling, and other phases of this fascinating hobby. Although large sums of money may be spent, a complete station can be put on the air for very little.

Newark's entire licensed Amateur Dep't. staff can help you select the equipment which is best suited to both your needs and your pocketbook. We can help you get started. Write, with no obligation, to Newark-Chicago. You may also call or drop-in for immediate service.

RECOMMENDED AMATEUR BOOKS

Amateur exams consist of Morse Code and multiple choice questions. These books, and those in the book section, will help you get your license, then NEWARK will help you select your equipment.

ARRL Radio Amateur's License Manual.
52F615 Postpaid in USA............................**.50**

ARRL Learning the Radio-Telegraph Code.
52F605 Postpaid in USA............................**.50**

AMECO Radio Amateur Theory Course.
27F537 Postpaid in USA............................**3.95**

AMECO RADIO CODE COURSE RECORDS

Junior Code Course. Enables beginner to attain 7½ wpm 5 records, 78 RPM. Shpg. wt., 5 lbs.

27F535. NET.................................**6.95**

27F562. Similar to above but 33⅓ RPM. **NET**..........**4.95**

Advanced Code Course. Prepares Novice operators for General Class Amateur and 2nd class Radio-telegraph code tests, 6 records, 8½-18 wpm, with book. 78 RPM. Shpg. wt. 5 lbs.

27F538. NET.................................**5.95**

27F564. Similar to above but 33⅓ RPM. **NET**..........**4.95**

Senior Code Course. Combines Junior and Advanced Courses, also sample FCC exam for Amateur and Comm. licenses. 8 lbs.

27F536. NET.................................**11.50**

27F563. Similar to above but 33⅓ RPM. **NET**..........**9.50**

JOHN F. RIDER CODE COURSE RECORDS

SOUND-n-SIGHT CODE COURSE. Model REC-08. New scientific advance requiring no conscious effort to memorize. Progress one word per minute per day. Novice course: (0 to 8 words per minute)—Three 10-inch LP's (96 minutes), 47 identification cards and instruction book. Shpg. wt. 3 lbs.

53F209. NET.................................**9.50**

No. REC-920. Advanced course: Shpg. wt. 3 lbs.

53F210 NET.................................**8.95**

No. REC-020. Complete course: Shpg. wt. 6 lbs.

53F211. NET.................................**15.95**

HAMMARLUND

● *NEW* **HK-1B**

Front controls: Volume of monitor for control of AF side tone. Built-in speaker. Speed, ratio of characters and off-automatic/bug/hold switch. Built-in keying relay protects possible transistor damage due to reverse polartiy. 22½ Volt (Burgess 4156 or RCA VS102) battery. Steel cabinet, grey with white marking. 7"Lx4¼"Wx 2⅜"H. Wt., 2 lbs.

97F414. HK-1B. (Less battery) **NET 39.95**

49F166. Burgess 4156 battery. **NET**........**1.61**

BUD

CODE OSCILLATOR AND MONITOR

CPO-128B. A practice oscillator for learning the code which can be converted to a fine CW monitor with the flip of a switch! Will operate up to 20 pairs of headphones, or can be heard through its own built-in 4" speaker. Volume and pitch controls can be adjusted to suit your taste and requirement. All controls are on front . . . all jacks at rear of 5½x3½x6½" cabinet. 110v 60-cycle AC or DC. Wt., 3½ lbs.

27F510. NET........ **19.13**

PRACTICE OSCILLATOR AND MONITOR

Type CPO-155T. Available in earphone model only. Small, lightweight, operates entirely on transistors. Works entirely on penlight batteries, needs no power supply or tubes. Finished in light gray hammertone. Size 1½x2¼x4¼". Wt. 1½ lbs.

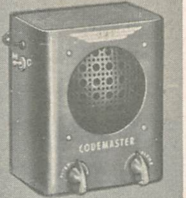
47F952. NET........ **5.88**

VOLUME
SPEED
AUTO
BUG
OFF
HOLD
RATIO
HAMMARLUND
KEYER HK-1B

HK-1B
HA-1

CODE OSCILLATOR

- Transistorized
- Battery Operated
- Built-in Speaker.



128-B

706

CPO-155T

HALLICRAFTERS

● *NEW* **MODEL HA-1**

The HA-1 T.O. Keyer employs digital circuitry, as found in modern computers. Features side tone signal and built-in speaker for constant monitoring. Handles 300 wpm comfortably. Front panel controls: AC low/high speed. Hold down key for tune up, Neon indicator for perfect character formation. Long life Mercury-wetted contact. 7" long, 5" high, 7" deep. Wt., 10 lbs.

98F068. NET........ **79.95**

EICO

CODE PRACTICE OSCILLATOR

Model 706. Battery operated transistor audio oscillator. Headset may be plugged in which automatically cuts out loudspeaker. External key terminals are provided on front panel. Tone freq. range: approx. 500 to 2000 cps continuously variable. Bakelite, satin finish, deep etched aluminum. Size: 6½x3¾x3¾". Shpg. wt., 2 lbs.

62F862. 706K Kit. **NET**........ **8.95**

62F863. 706. Factory wired. **NET**........**12.95**

Battery for above. Requires 2.
49F261. .... **.14**

JOHNSON KEYS AND ACCESSORIES

Fig. A. Practice Set. Provides high frequency tone which simulates code signal. Two can be connected to provide a two-way signal system. Uses two dry cells or "C" battery (Not Supplied).

27F517. Type 114-450. **NET EACH**........ **4.95**

Fig. C. Heavy Duty Keys. Heavy die cast base, chrome plated key arm. Well insulated for heavy duty service. Large ¼" coin silver contacts. Navy type knob. Adjustable steel bearings and spring designed to give a light keying touch.

27F531. Type 114-320. Black wrinkle enamel base. **NET**........ **4.70**

Standard Keys. Heavy die-cast base. Smooth adjustable bearings. ⅛" coin silver contacts. With switch. 2 lbs.

27F528. Type 114-310-3. Black wrinkle base. **NET**........ **3.95**

27F532. Type 114-321. Polished chrome plated base. **NET**........**5.85**

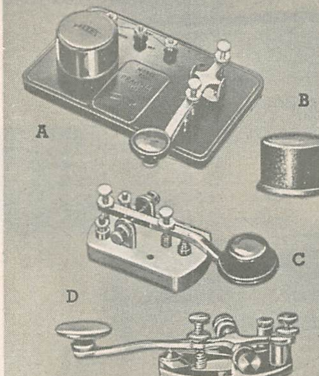


Fig. B. Constant Frequency Buzzer only, as used on practice set. Type 114-450.

27F530. Type 114-400. NET........ **1.85**

Fig. D. High Speed Standard Key. Fully adjustable spring tension, contact spacing and bearings. .072" platinor contacts. Includes shorting switch. Satin brass. Wt., 2 lbs.

27F526. Type 114-100-3. NET........ **7.35**

27F529. Type 114-311-3. Chrome plated base. With switch. **NET**........**6.20**

VIBROPLEX SEMI-AUTOMATIC KEYS

Fig. F. "Vibro-Keyer." This keying mechanism is built to the same high-quality standards as the famous "bugs," but is intended to key electronic units, will not form self-completing dots. Has same large contacts, frame and parts as "Deluxe" model, same easy-operating Vibroplex trunnion lever. Colorful red finger and thumb pieces, with beige base. Fully adjustable. Size: 3½x4½ in. Shpg. wt., 3¼ lbs.

27F492. NET........ **17.95**

Fig. G. "Original" Vibroplex. A smooth, easy-working bug. Can be slowed to 10 words per minute, or adjusted to as high a rate of speed as desired. Single lever type; dashes are made manually by moving lever to left, dots are made automatically by moving lever to right. One-piece cast pivot support. Chrome-plated parts mounted on gray base, black plastic finger pieces. Shpg. wt., 4¼ lbs.

27F500. NET........ **22.45**

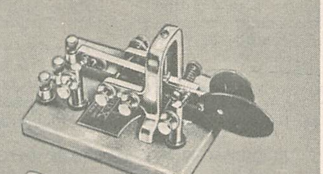
Fig. H. "Blue Racer" Vibroplex. Similar to the "Original", but approximately half the size. Polished chrome-plated parts mounted on gray finished base. Shpg. wt., 3 lbs.

27F502. NET........ **22.45**

Deluxe Model. As above, but with polished chrome-plated base, jeweled pivots, and red plastic finger pieces. Shpg. wt., 3 lbs.

27F503. NET........ **26.95**

F



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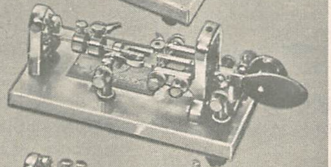

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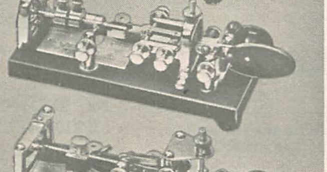

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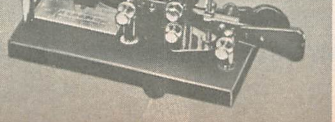


Super-Deluxe "Presentation" Vibroplex. 24K gold-plated base top, patented jewel movement and super speed control. New patented adjustable main spring affords wider range of speed. Polished chromium precision matchined parts, red switch knob, finger and thumb piece. Shpg wt., 6 lbs.

27F505. NET........ **33.95**

Deluxe Model. Same as "Original," but with polished chrome-plated base, jeweled pivots, and red plastic finger pieces. Shpg. wt., 4¼ lbs.

27F501. NET........ **26.95**

"Champion" Vibroplex. Std. finish only. Chromium finished top parts on gray crystal base. Shpg. wt., 4 lbs.

27F504. NET........ **17.95**

Vibroplex Carrying Case. Cloth lined, finished in handsome simulated black morocco leather. Reinforced corners, leather handles. Complete with lock and key. Wt., 2 lbs.

27F509. NET........ **6.75**

Cord & Wedge
27F447........ **1.75**

hallicrafters
RECEIVERS

NEW TRIPLE CONVERSION RECEIVER

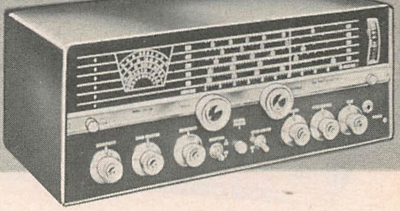
odel SX-117. Triple conversion hetero- yne type communications receiver. Fea- res: Transmitter type VFO; Constant ning rate; Back-lash free tuning mech- nism; Crystal controlled 1st and 3rd con- ersion oscillators; Selectable SB; Sensitiv- less than 1uv; Selectivity is variable in steps from 500 to 5000 cycles; Product etector for SSB/CW-envelope detector for M; IF type noise limiter; VFO can be used crystal locked oscillator. Spurious re- ponses down 50 db.; Audio inverse feed- ack. Shipped with crystals to cover 3.5-4.0, 0-7.5, 14.0-14.5, 21.0-21.5, 28.5-29.0 mc. eceiver can operate on most frequencies om 150 KC to 30 MC with proper crystal. as 12 tubes. Panel controls: RF Gain, Au- o Gain, Tuning, Function Selector (up- er/lower SSB, AM, on/off switch), Cal eset, Selectivity, Notch Frequency, BFO tch, ANL/CAL, Band Selector, Headphone ck and Preselector. Rear chassis: Coax ntenna Connector, Audio Output (3.2 and 0 ohms), Line Fuse, Ground Lug. Power pply: 105/125V, 50/60 cy. AC. 15x13x /8". Shipping weight, 21 lbs.

F093. NET........ **379.95**

DELUXE SHORT WAVE LISTENER RECEIVER

Model SX62A. An ideal unit for the advanced short wave listener. Covers standard bdcst.; A.M. or Morse code from 1.62-32 Mc; AM or FM from 27-109 MC. Provides variable selectivity. Single tuning control. Slide rule dial with one band lighting at a time. Built-in 500 KC crystal calibration oscillator. Two RF and three IF stages allows maximum sensitivity on all bands. 10 watts undistorted output with very flat frequency response from 50 to 15,000 cps. Fourteen tubes plus voltage regulator and rectifier. Controls: Band selector 550kc-1620kc, 1.62mc-4.9mc, 4.9 mc-15mc, 15mc-32mc, 27mc-56mc, 54mc-109mc; Receive/standby, Calibration on/off, Noise limiter, Tuning, AF gain, Phono/FM/AM/CW, Tone, Sensitivity, Calibration reset. External terminal: Audio Output 3.2/8/500 ohms; Doublet or single wire antenna (52-600 ohms input impedance). Power supply: 105/125 V, 50-60 cps. Satin black steel cabinet w/light gray front panel and chrome trim. Size 20"x10½"x16". Shpg. wt., 64 lbs.

98F007. NET........ **430.00**

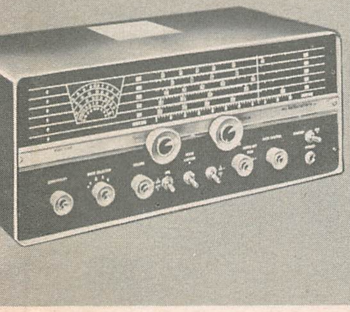


6 BAND GENERAL COVERAGE RECEIVER

- **EXCELLENT FOR NOVICE OR EXPERT**
- **SEVEN TUBES PLUS RECTIFIER**

Model SX-110. All-purpose receiver. Broadcast band from 540-1680KC plus three short wave bands covering 1680KC to 34MC. Calibrated bandspread dial for 80, 40, 20, 15, and 10 meter amateur bands and 11 meter citizens' band. Separate bandspread tuning condenser, crystal filter, antenna trimmer, "S" meter, one RF two IF stages. Circular main tuning dial is calibrated in megacycles and has 0-100 logging scale. Seven tubes plus one rectifier. Audio output power: 2 watts at 3.2 and 500 ohms impedance. Controls: Main tuning, bandspread tuning, band selector, volume, antenna trim, BFO pitch, on/off/tone/standby, AM/CW switch, selectivity, crystal phasing, noise limiter, headphone jack. Terminals for doublet or single wire antenna plus terminals for speaker/line on rear. Power: 105/125v, 50/60 cps. Size: 18¾"Wx8"Hx10¼"D. Shpg. wt., 32 lbs.

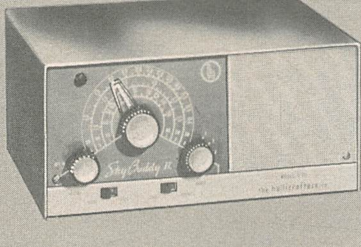
98F062. NET........ **169.95**



BAND GENERAL COMMUNICATION RECEIVER

odel S-108. Standard broadcast band 540- 00kc plus three short wave bands cover- g 1550kc-34mc. The slide rule dial is band pread calibrated on 10, 15, 20, 40, and 80 eter amateur bands. Separate band- pread tuning. Temperature compensated cillator and built in speaker. Controls: nsitivity, band selector, tuning, band- pread, volume, AVC, noise limiter, AM/ W, on/off/tone, pitch, standby-receive. 7 bes plus one rectifier; 6SG7 r-f amp.; A7 conv; 6SK7 1st i-f amp; 6SK7 2nd i-f mp; 6SC7 BFO and aud amp; 6K6GT aud. tput; 6H6 ANL, AVC, and det; 5Y3GT ct. Terminals for single or double wire tenna. Headphone jack. 105/125V 50/60 cle AC. Gray steel cabinet with brushed rome trim. Size: 10¼"Wx8"Hx8¾D". ipping wt., 32 lbs.

F064. NET........ **139.95**



"SKY BUDDY" RECEIVER

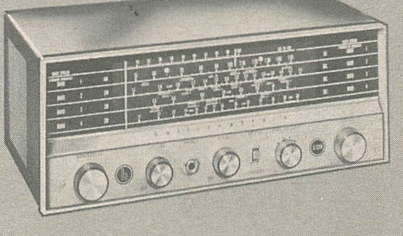
- **Excellent for Short Wave Listener and Novice**
- **CW or AM Reception**
- **Planetary Drive Dial**
- **Built-In Speaker**

Model S-119K. Kit Form general purpose receiver for amateur and shortwave listener. Provides CW or AM reception on two short wave bands from 2-16 mc, plus the standard broadcast band, 535 kc to 1620 kc. Planetary Drive dial for easy and accurate tuning. Superheterodyne Circuit. Uses these tubes: 6BE6—Pentagrid Converter; 6BA6—IF Amplifier/BFO; 6CM8—1st Audio, Audio Output; 1N295—Separate Diode Detector. Built in speaker. Headphone jacks. Controls: On-Off-Volume, Range switch, AM/CW switch, Spkr/Phones switch. 5x10½x7½". 9 lbs.

98F090. NET........ **39.95**

Model S-119. As above but factory wired.

98F091. NET........49.95



NEW ECONOMY RECEIVER

Model S-120. Ideal receiver for beginner. Covers broadcast band 550-1600 kc plus three short-wave bands including 1600 kc to 30 MC. Intermediate Freq.: 455 kc. Features: Electrical bandspread with slide rule bandspread dial and separate bandspread tuning condenser, front panel B.F.O./selectivity control. Front panel headphone jack which automatically disconnects speaker. May be used to drive remote 8 ohm loud speaker. Self contained speaker. 3 antennas (ferrite loop for broadcast band, adjustable whip for short wave reception and wire antenna). Controls: Band selector, main tuning, band spread tuning, standby/receive, BFO/selectivity, AC on/off volume. 4 tubes plus Selenium Rectifier: 12BE6 converter, 12BA6 IF amplifier and BFO, 12AV6 audio amplifier AVC detector, 50C5 Audio. Power supply: 105/125 VDC or 50/60 cycle AC/DC —30 watts. Gray steel cabinet with silver trim. Size: 13½"Wx5⅞"Hx8¾"D. Shpg. wt., approx. 11¾ lbs.

98F069. NET........ **69.95**

hallicrafters

AMATEUR EQUIPMENT

SX-115

AMATEUR TRIPLE CONVERSION RECEIVER

Model SX-115. Covers the 80, 40, 20, 15 and 10 meter bands in eight 500 kc segments. First and third conversion oscillators are crystal controlled. Tuning mechanism is gear driven. Sensitivity less than 1 microvolt. Spurious and image rejection is better than 60 db. Selectivity variable in 5 steps from 500 to 5000 cycles at 6 db down. Separate detectors and noise limiters for AM and CW/SSB. 100 kc crystal calibrator. Separate AVC systems for the RF and IF sections improves signal reception with ratio on weak signals. Tee-notch filter. "S" meter functions with AVC off. Will receive 10 mc WWV. AVC has fast attack—slow release needed for SSB. Black and Gray steel cabinet. Size: 16x10½x16". For 115V, 50/60S AC. Shpg. wt. 47 lbs.

98F080. NET.................................**599.95**

HT-32B

AMATEUR BAND TRANSMITTER

Model HT-32B. Complete table top, high efficiency amateur band transmitter providing SSB, AM, and CW output on 80, 40, 20, 15, and 10 meters. 100 watts SSB, 100 watts CW 25 watts AM-output. The 10 meter band is covered in four segments. New VFO permits reading frequency directly to 1 kc. Unwanted sideband and carrier suppression 50 db or more. Develops 144 watts PEP. RTTY keying circuit. Phone patch input. Gear driven VFO. Logarithmic meter for precise tuning and carrier level adjustment. Voice control with anti-trip or push to talk. 52 ohm pi-network output. Power amplifier is two 6146's. AC accessory outlet on rear chassis. Black and gray steel cabinet. Size: 20"Wx10⅜"Hx16⅜"D. For 105/125 VAC, 50/60 cycles, 375 watts. Shpg. wt. 85¼ lbs.

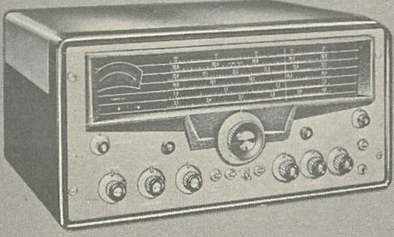
98F074. NET.................................**725.00**

HT-33B

1-KILOWATT LINEAR AMPLIFIER

Model HT-33B. 1000 watts input on all amateur bands 80 thru 10 meters. Requires 60-70 watts PEP drive on SSB, 15-18 watts on AM, and 60-70 watts on CW. Input impedance 50-75 ohms. Pi network output will match 40-80 ohms. RF voltage and all important circuits metered. Separate meter for cathode current. Meters illuminated. Third and fifth distortion products down in excess of 30 db. Dual speed blower. All important circuits fused. Provision for cutoff bias. Tubes: 1-PL 172 amplifier; 2-3B28 rectifiers; 6-OA2 voltage regulators. Controls: Meter Switch; High Voltage off/on; Bias Adjust, Band Selector; Filament off/on; Plate Tuning; Plate Loading. Rack Mounting possible. Black and gray steel cabinet. Size: 20"Wx10½"Hx17"D. For 117 VAC, 50/60 cycles, 2350 watts. Shpg. wt. 121 lbs.

98F075. NET.................................**995.00**

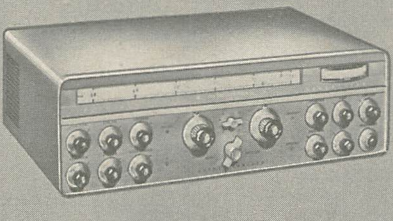


SX-101A

AMATEUR DUAL CONVERSION RECEIVER

Model SX-101A. Covers the 80, 40, 20, 15, and 10 meter bands, with converter input for 6 and 2 meters. Receives 10 mc. WWV. One microvolt or less sensitivity on all bands. Large slide rule dial with only the band in use illuminated. Tuning knob has 40:1 tuning ratio and 0-100 logging scale. Illuminated "S" meter functions with AVC off. Dual conversion. "Tee-Notch" filter. Gear drive tuning. Built-in 100 kc evacuated marker crystal. Separate AM and SSB-CW detectors. Five steps of selectivity from 500 to 5000 cycles. Direct coupled series noise limiter. 52 ohm antenna input. Controls: tuning; AF gain; RF selectivity; BFO pitch; response-power-sideband-mode; AVC on/off; AVC fast/slow; ANL on/off; calibrator on/off; rec./standby; band switch. First i-f is 1650 kc, second i-f is 50.5 kc. Size: 20x10½x16". Relay rack panel. Black and gray steel cabinet. 105/125V., 50/60 cps. Approved for FCDA matching funds. Shpg. wt., 74 lbs.

98F037. ....**445.00**

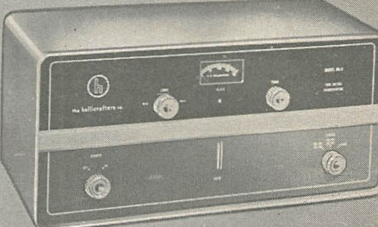


FPM-200

AMATEUR TRANSISTORIZED TRANSCEIVER

Model FPM-200. Designed for fixed, portable, or mobile operation. Transistors are used throughout the receiver section and low level stages of the transmitter. Only tubes are driver (12BY7) and final amplifier (2-6146). Has two VFO's, one for transmitter and one for receiver. Either VFO may be used to control either or both sections. Complete coverage is provided for all amateur bands 80 through 10 meters. Self contained, transistorized 12 volt DC power supply. Linear dial calibration accurate to 1 kc. USB/LSB, CW, or AM. Very low drain from car battery. Power supply and heat producing amplifier tubes cooled by a transistor powered fan. Input is 150 watts PEP on SSB. High frequency crystal filters ensure maximum unwanted sideband suppression and outstanding receiver selectivity. External AC supply (included), provides 12 volts DC for transistorized power supply. Light gray brushed chrome finish. Includes Mobile Mtg. Rack. 16x5x11". Shpg. wt.. 24½ lbs.

98F076. NET.................................**2650.00**



HA-2 or HA-6

2 AND 6 METER TRANSVERTERS

Model HA-2. A new approach to VHF operation. Includes transmitting converter for hetrodyning signals from 10 meter transmitter into the 2 meter band. Linear amplifier, and receiving converter for hetrodyning received 2 meter signal into the 10 meter band. Nuvistor front end in receiving section provides excellent noise figure and sensitivity. Transmitting section may be driven by any 10 meter transmitter in the 10-100 watt range. Converts all modes of operation provided by the 10 meter transmitter. Built in coaxial relay. 5894 final amplifier may be driven to 120 watts PEP input. Requires: 750 v. @ 160 ma, 250 v. @ 70 ma, and —60 v. @ 10 ma. Steel grey cabinet with silver trim. Size: 8x17x8⅞". Shpg. wt., 26 lbs.

98F077. NET.................................**349.50**

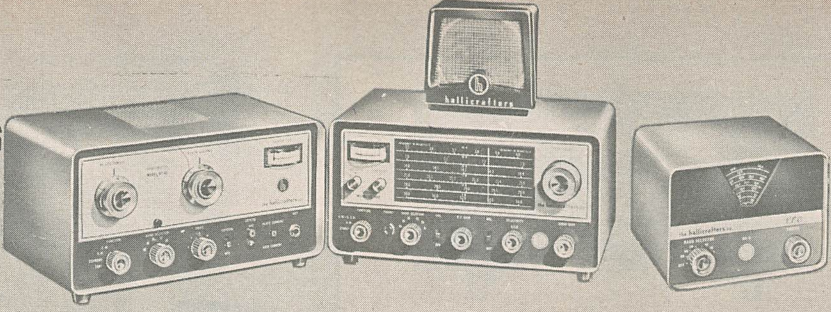
Model HA-6. Same as above, but for 6 meters.

98F078. NET.................................**349.50**

Model P26. Power supply. Supplies all voltages needed for above units.

98F079. NET.................................**99.50**

hallicrafters AMATEUR EQUIPMENT



75 WATT—80 THRU 6 METER—AM/CW TRANSMITTER

Model HT-40. Provides AM or CW output on all amateur bands 80 thru 6 meters. TVI filtered. 75 watts input. Clean CW keying. Crystal controlled with provision for external VFO. Pi network matches any antenna with 50 to 75 ohms impedance. Low distortion modulation. Hum and noise on carrier down more than 40 db. Meter measures both grid current and RF output. Final amplifier operates straight thru on 80-10 meters and doubles on 6 meters. Tubes: 1-6CX8, oscillator and multiplier; 1-6DQ5, final; 1-12AX7, speech amplifier; 1-6DE6, speech amplifier and screen modulator. Two silicon power rectifiers. For: 105/125 volts, 60 cycles AC, 175 watts. Size: 13⅜Wx7³⁄₁₆Hx8¼"D. Shpg. wt., 19 lbs.

98F071. Model HT-40 (wired).... **109.95**

98F070. Model HT-40K (kit).................... 89.95

MODEL SX-140 RECEIVER

High performance, low cost receiver, covering all amateur bands 80 thru 6 meters. Receives AM, CW, and SSB signals. Regenerative intermediate frequency stage improves selectivity, and provides a boost in sensitivity to bring in weak signals. A 3.5 mc crystal oscillator provides calibrating signals at the low end of all bands 80-10 and at 52.5 mc. Terminals at rear of chassis permit remote control of transmitter. Built in "S" meter. Efficient noise limiter. Illuminated dial scales. 5 tubes and two silicon rectifiers. Gray steel case with silver trim. Size: 13⅜"x7³⁄₁₆"x8¼" deep, For 105/125 volts, 60 cycles AC, 47 watts. Shpg. wt. 14 lbs.

98F073. Model SX-140 (wired).... **139.95**

98F072. Model SX-140K (kit)............... 114.95

HETERODYNE VFO

Model HA-5. Crystal oscillator is heterodyned against 5.0 to 5.5 mc variable oscillator with 30:1 tuning ratio for output. Dial may be calibrated directly to WWV. Cathode of the mixer tube is keyed providing excellent c.w. Output frequency range: 3.5 to 4.0 mc, 7.0 to 7.5 mc, 7.8 to 8.3 mc, and 8.333 to 8.833 mc. Tubes: 1-6U8, VFO and crystal oscillator; 1-6BA7, mixer; 1-6AQ5, output; 1-OA2, voltage regulator. Illuminated dial is calibrated on all amateur bands 80 thru 2 meters. Crystals for 6 and 2 mtr. operation not included. Will drive any unit on the market. Gray steel case with silver trim. Size: 7Wx5Hx8½"D. For: 105-125 volts, 60 cycles AC. Shpg. wt., 8 lbs.

98F083. Model HA-5. Wired. NET... **79.95**

MODEL R-47 SPEAKER

4" communications speaker for all Hallicrafter receivers. Response 300 to 2850 cps, 3.2 ohms. 5½x5¼x3¼". 2½ lbs.

98F046. NET.............................. **12.95**

- **The HT-40/SX-140 combination comprise the ideal station for the new ham.**
- **The HT-37/SX-111 series offer the experienced ham the finest features at an economical price.**

HIGH POWER LINEAR AMPLIFIER

Model HT-41. Uses two 7094 tetrodes with 250 watt plate dissipation connected as high Mu grounded grid triodes in class B. The input circuit matches 40 to 75 ohms, and can be driven by exciters with 10 to 100 watt capability. A self contained power supply using two 866A tubes in full wave, has exceptional regulation. Terminals on rear to control cutoff bias. Overload protection is provided by a fuse which protects the plate, bias, and blower circuits. Features: complete coverage 80 thru 10 meters; adjustable pi network output—40 to 75 ohms. All important circuits metered. RF output meter. Specifications: Power input SSB-CW-1000 watts DC on all bands thru 20 meters, slightly less on higher bands. Efficiency no less than 63%. Power input on AM—300 watts. Front panel controls: filament OFF-ON; high voltage OFF-ON; meter-grid, plate, RF output voltage; band selector; plate tuning; plate loading. Gray steel case with silver trim. Size: 19½"Wx9½"Hx15½"D. For 110V AC, 60 cycles. Shipping wt. 97 pounds.

98F082. NET.............................. **395.00**

AM-CW-SSB TRANSMITTER

Model HT-37. Provides complete coverage of all amateur bands 80-15, and 28.5 to 29.0 mc on the 10 meter band. Any single 500 kc portion of the 10 meter band may be covered by changing mixer crystal. Will generate AM, CW, or SSB. Power output is 70-100 watts on CW and SSB and 17-25 on AM. Carrier Suppression 50 db or more, unwanted sideband 40 db or more down at 1 kc, distortion products 35 db or more down, hum and noise 40 db or more below maximum output. VFO operates on 5.0 to 5.5 mc. Meter measures RF output. Has VOX with anti-trip. Controls: Operation (pwr.-off, stdby., MOX, cal., VOX); Aud. Gain; RF Level; Final Tune; Function (USB, LSB, DSB, CW); Carrier Bal.; Cal. Level; Driver Tune; Bandswitch; VFO; mike connector; and key jack. Tubes: 2-6146 PA; 1-6CB6 VFO; 1-12BY7 RF driver; 1-6AH6 1st mixer; 1-6AH6 2nd mixer; 1-6AB4 xtal osc.; 1-12AX7 VOX; 1-12AT7 VOX; 1-6AL5 VOX; 1-12AX7 aud. amp.; 1-12AT7 aud. amp. and carrier osc.; 1-12AT7 aud. mod.; 2-12AT7 bal. mod.; 1-5R4 HV rect.; 1-5V4 LV rect.; 1-OA2 VR. Gray steel case with silver trim. Size: 19½"Wx9½"Hx15½"D. For 105/125 v, 60 c. AC. Approved for FCDA Matching Funds. Shpg. wt., 97 lbs.

98F067. NET.............................. **495.00**

5 BAND AMATEUR RECEIVER

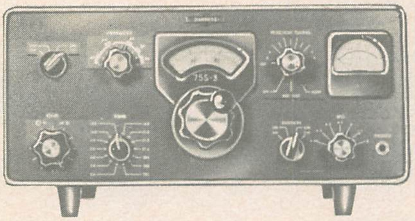
Model SX-111. Dual conversion selectable sideband receiver covering the 80, 40, 20, 15 and 10 meter bands. Receives 10 mc WWV. Sensitivity 1 microvolt on all bands. Selectivity variable in 5 steps from 500 to 5000 cycles. Has 100 kc evacuated crystal calibrator. Second conversion oscillator is crystal controlled. Each band covers full length of dial. 48:1 tuning ratio. Dial resettable from panel. Tee-Notch filter eliminates unwanted hetrodynes and steepens the 50 kc passband. 12 tubes, rect. & voltage reg. Controls: AC-on/off, Standby, Upper sideband, Lower sideband; Calibrate; Ant. trim., Notch Filter; RF gain; Tuning; AVC; Noise Limiter; Selectivity; BFO; Pointer Reset; Phone Jack. Ext. con.: 3.2/500 spkr. term, single wire antenna, 50 ohm coax, receiver muting. "S" meter adjustment. Gray steel case with silver trim. 105/125 volts, 50/60 cycles AC. Power consumption: 75 watts. 18¾"x10¼"x8¾". Shipping weight, 40 lbs.

98F066. NET.............................. **279.50**

MODEL R-48 SPEAKER

5½"x7½" speaker for all Hallicrafters receivers, communications/hi-fi; response switch. 3.2 ohms. 6⅝"x13¼"x8¼". Wt. 2½ lbs.

98F063. NET.............................. **19.95**



SSB, AM, CW, RTTY RECEIVER

- 200 cycle crystal filter for CW
- Stable, deep notched "Q" multiplier
- Variable and fixed BFO's
- Fast and slow AGC

Model 75S-3. Similar to the 75S-1, but includes tunable rejection with deep (50 db nom., 40 db min.) BFO may be crystal controlled or variable. Fast and slow AGC, crystal filter for CW, mechanical filter for SSB. Spinner knob tuning control, concentric RF-IF gain controls. 100 kc crystal calibrator. Selectivity: 200 cps on CW, 5 kc on AM, 2.1 kc on SSB at 6 db down. Spurious response: IF rejection 50 db min. (40 db min. on 80 meters); image rejection 50 db min.; crossover spurious 50 db min. Two tone grey case with long legs. Size: $14\frac{1}{2}$Wx$7\frac{3}{4}$Hx$11\frac{5}{8}$"D. For 105/125 VAC, 50/60 cycles, 85 watts. $14\frac{3}{4}$"Wx$6\frac{9}{16}$"Hx$11\frac{5}{8}$"D. Shpg. wt., 23 lbs.

97F378. NET 680.00

Model 75S-3A. Same as above, but with extra crystal board. Provides for 14 more 200 kc bands.

97F381. NET **750.00**

51S-1

Collins EQUIPMENT

PROFESSIONAL COMMUNICATIONS RECEIVER

Model 51S-1. Covers 2-30 mc in 1 mc steps plus 0.2-2 mc with built-in crystal converter. AM, CW, SSB. 300 cps xtal filter for CW; 2.4 kc mechanical filters for LSB and USB. "Q" multi, notch not less than 40 db. Separate AM and CW-SSB detectors. Triple conversion 0.2 to 7 mc, double conversion 7 to 30 mc. Variable oscillator operates at 2.5 to 3.5 mc for stability. Other oscillators crystal controlled. Drift less than 100 cps per day, ±150 cps per week. Sensitivity (2-30 mc): 0.6 uv for 10 db (S+N)/N ratio. Counter type dial for mc's and tenths of mc's, kc divisions on main tuning dial. Can be read to 100 cycles. 100 kc per knob revolution. AGC: audio output variation less than 6 db for RF inputs of 5-50,000 uv, not more than 3 db for signals of 50,000 uv to 1 volt. Image rejection 50 db or more. Meter measures signal level in db above AGC threshold or audio output calibrated for either 0 dbm or +10 dbm. Audio output, 4 ohm and 600 ohm, unbalanced 1.0 watt, distortion less than 10%; 600 ohm +10 dbm balanced output for telephone line, distortion 1% or less. RF input, 50 ohms. For 115/230 VAC, 50-400 cycles, 125 watts. Size: $14\frac{3}{4}$Wx$6\frac{9}{16}$Hx$13\frac{1}{64}$"D. Shpg. wt.. 35 lbs.

97F319. NET **1828.00**

NEWARK can supply everything for the amateur station, equipment and parts. Our trained personnel will help you select your equipment and plan your station. Write or stop in the "Hamshack" at NEWARK-CHICAGO for friendly, personal service. If you already have equipment selected, tell us what you would like to trade in, and we will quote you a liberal trade in allowance. If you are interested in used equipment, write for our list of used equipment available

STATION CONTROL UNIT

Model 312B-4. Integrates 75S-1, 32S-1, and 30S-1/30L-1 and accessories into operating system. Can also be used with KWM-2 and 30S-1/30L-1 and accessories. Can also be used with KWM-2 and 30S-1/30L-1. Contains speaker, hybrid phone patch, and RF directional wattmeter (SWR meter) with 200 and 2000 watt forward and reflected power ranges. Controls: Function switch for selection of NORMAL operation with station controlled by transmitter VOX, RECEIVE ONLY with transmitter audio circuits (and VOX) disabled, and TRANSMIT ONLY with receiver disabled and transmitter VOX actuated; phone patch switch; and directional wattmeter switch. Two tone grey aluminum case. Size: $7\frac{3}{4}$"Wx10"Hx$12\frac{1}{4}$"D. Shpg. wt., 13 lbs.

97F346. NET **195.00**

Model 312B-3. Speaker. Contains 5x7", 4 ohm speaker with connecting cable. Designed to match 75S-1, 32S-1, and KWM-2. Size: $7\frac{3}{4}$"H x 10"W x 8"D. Shpg. wt., 7 lbs.

97F338. NET 32.00

AC POWER SUPPLY

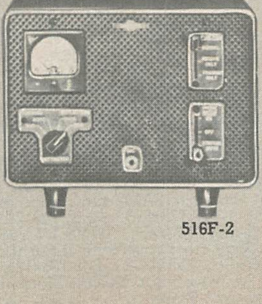
Model 516F-2. AC power supply for 32S-1 in matching cabinet. Space behind panel for 5x7" speaker. Size: 10"Wx$7\frac{3}{4}$"Hx12"D. For 115 VAC, 50/400 cycles, 320 watts max. Shpg. wt., 32 lbs.

97F336. NET **115.00**

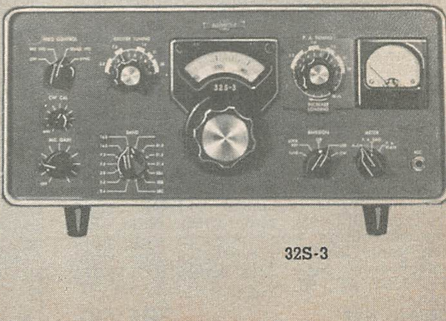
• *NEW* SSB, CW TRANSMITTER/EXCITER

Model 32S-3. Successor to the 32S-1. The 32S-3 has these additional features: new keying method; spotting control; keying hardness control; sidetone level adjust. 175 watts PEP on SSB or 160 watts input on CW. Power output 100 watts nominal. Frequency coverage is the same as the 75S-1/75S-3 except the 14.8 to 15.0 position is blank and may be used for any 200 kc portion between 9.5 and 15.0 mc. Unit may be used on any frequency between 3.4 and 29.7 mc except 5.0 to 6.5 by changing crystals. Uses Collins mechanical filter for elimination of unwanted sideband. Has Automatic Load Control for more talk power. RF inverse feedback for linearity and stability. VFO is identical to that in 75S-1/75S-3 and frequency control may be transferred to 75S-1/75S-3 by front panel control. Low frequency oscillator is tuned while high freq. osc. is crystal controlled for greater stability. Carrier, unwanted sideband, and 2nd harmonic 50 db down. Third order distortion 30 db down. Feeds 52 ohm load having not more than approximately 2:1 SWR. Lighted meter measures final amplifier plate current, grid current, or ALC voltage. Two 6146 final amp. Two tone grey aluminum case. Size: $14\frac{1}{2}$"Wx$7\frac{3}{4}$"Hx$11\frac{5}{8}$"D. Less power supply. Model 516F-2 for AC operation.) Shpg. wt., 19 lbs.

97F380. NET **750.00**



516F-2



32S-3

62S-1

Collins EQUIPMENT

● *NEW* SIX AND TWO METER VHF ADAPTER

Model 62S-1. Transmitting and receiving converter for use with S/Line and KWM-2. Will operate on CW. SSB. AM and RTTY as determined by exciter and receiver. Covers 50-54 and 144-148 mc. Transmitting section specs: Input, 160 watts PEP; Output, 65 watts PEP max.; Impedance, 50 ohms; Osc. and mixer products, 60 db below PEP; 2nd harm. at least 35 db below PEP; noise 40 db. below PEP. Receiving section specs: sensitivity for 10 db (S+N)/N ratio, 3 kc bandwidth, 2 meters, 1.2 uv max. (noise factor 4 db max.), 6 meters, 1.3 uv max. (noise factor 5 db max.); image rej., 2 meters, 60 db min., 6 meters, 100 db min.; other spursious responses, 50 db below 1 uv-signal; impedence. 50 ohms. Meter reads PA grid and plate output. Controls: function (off-HF-VHF tune—VHF operate); RF gain; exciter tuning; bandswitch; crystal switch; PA tune and load; meter; xmit gain (on rear of chassis). 10 tubes, 7034/4X150A final. For 115 VAC, 50-60 cps, 75 watts. DC Voltages are obtained from S/Line or KWM series equipment. Light grey enamel. Size: 11 Wx7¾Hx13¼"D. Shpg. wt., 30 lbs.

97F379. NET........ **895.00**

KWM-2 TRANSCEIVER

Model KWM-2. Will transmit and receive on all amateur bands 3.5-27.7 mc, plus 15 mc for WWV. Will operate anywhere 3.5-5.0 and 6.5-30 mc with accessory crystals. Input to parallel 6146's is 175 watts PEP SSB, 160 watts CW. Output, 100 watts PEP SSB. Selectable SB. VFO is used for transmitting and receiving, can be read to 1 kc. Stability better than 750 cys. 2.1 kc mechanical filter used for SB generation and rcvr/selectivity. RF inverse feedback. Automatic Load Control for higher talk power. Break-in CW, sidetone osc. Carrier, unwanted sideband, 2nd harm., 50 db down; osc. and mixer products, 40 db down. Meter measures grid, plate current, ALC, "S" trolled. Sensitivitl, better than 0.2 uv for 10 db (S+N)/N. units. Rcvr is double conversion with 1st osc. xtal con- 100 kc xtal calibrator. 4 ohm, 500 ohm, and phone output. Two tone gray aluminum. Less power supply. Size: 14¾Wx7¾Hx13 "D. Shpg. wt., 21 lbs.

97F393. NET........ **1150.00**

VFO, SWR METER, PHONE PATCH FOR KWM-2

Model 312B-5. For use with KWM-2 in fixed station operation. Provides separate receive and transmit control, phone patch, and directional wattmeter. Selector may be set: (1) Receive KWM-2, Transmit 312B-5; (2) Transceive 312B-5; (3) Transceive KWM-2. Other control functions: normal (VOX); Receive; Transmit; Phone Patch on-off; Station Mute. Two-tone grey aluminum case. Size: 10Wx7¾Hx12½"D. KWM-2 supplies operating voltages. Cables furnished. Shpg. wt., 17 lbs.

97F397. NET........ **350.00**

AC POWER SUPPLY FOR KWM-2

Model 516F-2. Supplies all voltages for KWM-2. Room for speaker. Size: 10"Wx 7¾"Hx12"D. For 115 VAC, 50/400 cycles, 320 watts max. Wt., 39 lbs.

97F336. NET........ **115.00**

DC POWER SUPPLY FOR KWM-2

Model MP-1. Transistorized power supply delivers all voltages required by KWM-2. Mounted away from the KWM-2. For positive or negative ground. Size: 3¾"x5¾"x 11". 12 VDC, 25 amps max. (incl. heater current). Wt., 9 lbs.

97F317. NET........ **198.00**

FIXED STATION MICROPHONE FOR S/LINE AND KWM-2

Model SM-2. Grey and chrome omnidirectional microphone, matches S/Line and KWM-2. Frequency response: 200-3000 cps. —50 db output. Mounted on rubber insulated stand. Swivel permits a 60° swing for position adjusting. 5' coiled cord.

97F320. NET........ **48.00**

CARRYING CASE AND AC POWER SUPPLY

Model CC-2. Grey Samsonite carrying case for KWM-2, PM-2 listed below, and everything for a portable station. Complete station weighs less than 45 lbs. Size: 21¼"H, 21"W, 8¾"D. Shpg. wt., 12 lbs.

97F408. NET........ **85.00**

Model PM-2. AC power supply for portable operating KWM-2 at Towered power. Fits with KWM-2 in carrying case above. KWM-2 slides easily into power supply. Size: 7¾"H, 14¾"W, 4"D. For 115 or 220V AC, 50-400 cps. Shpg. wt., 15 lbs.

97F407. NET........ **150.00**

NOISE BLANKER

Model 136B-2. Plugs into KWM-2 for mobile operation. Shuts off receiver for instantaneous duration of impulse type noise. 5"Wx4"Hx4"D. Wt., 3 lbs.

97F398. NET **124.00**

MOBILE MOUNT FOR KWM-2

Model 351D-2. For mounting KWM-2 on transmission hump. Transceiver slides easily on, making all connections. With 20 foot cables. Wt., 12 lbs.

97F394. NET **120.00**

MOUNTING TRAY FOR KWM-2

Model 351E-4. Fastens to any horizontal surface and has two snap-in clamps for securing of KWM-2. Wt., 2 lbs.

97F395. NET........ **24.00**

SPEAKER

Model 312B-3. Contains 4 ohm, 5x7" speaker with connecting cable. Matches KWM-2. Size: 10"Wx7¾"Hx8"D. Wt., 7 lbs.

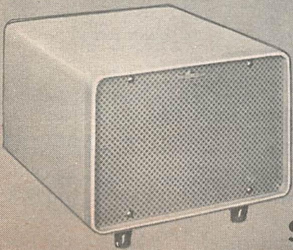
97F338. NET........ **32.00**

MICROPHONE-EARPHONE HEADSET

Model MM-2. High impedance reluctance microphone has 100 to 7000 cycle response, —50 db output. Adjusts 360 degrees for best pickup. Single earphone. Tip does not insert into ear channel, but focuses sound into outer ear. Wt., 5 oz.

97F318. NET........ **39.00**

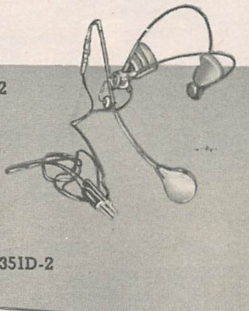
312B-5



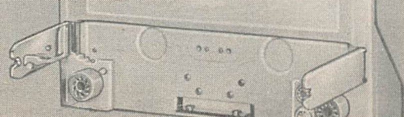
516F-2

CC2 and PM-2 with KWM-2

SM-2

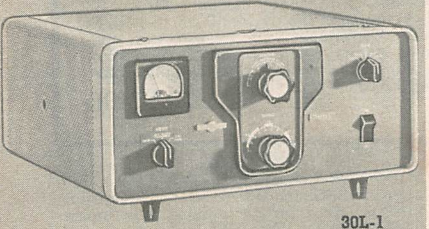


MM-2



351D-2

30S-1


30L-1

HQ-180

HQ-145X

HQ-100A

COLLINS AMATEUR EQUIPMENT

1 KILOWATT LINEAR AMPLIFIER

- **Instant switching between low and full power**
- **Automatic Load Control assures a steady signal**
- **RF inverse feedback which provides a clean signal**
- **Quiet and efficient cooling system**
- **Simple and direct connection between 30S-1 and exciter**
- **Protective circuitry which prevents damage due to mistuning or malfunction**
- **Quick and accurate tuning**

Model 30S-1. Completely self contained, single tube, grounded grid linear amplifier in a floor mounted cabinet. Requires from 70-100 watts to drive and matches 32S-1. Full legal input for SSB (1Kw average) or 1Kw for CW. Tube used is Eimac 4CX1000A. Matches 32S-1 and 75S-1. Ranges: 3.5-4.0 Mc; 7.0-7.3; 14.0-14.4; 21.0-21.45; 28.0-29.7. Covers entire spectrum from 3.2-30Mc. Output impedance is 50 ohms, SWR2-1 or less on all bands. Input impedance is 50 ohms unbalanced. Harmonic output: 2nd harmonic at least 40 db down; all others at least 50 db down. Automatic load control up to 12 db. Controls; band change, multimeter, filament, H.V., bias control, tuning, loading. Primary power 115 or 230V AC 50-60 cycles, single phase, 2000 watts maximum. Tubes 4CX1000A power amp, 2 866A H V rect. Blue steel cabinet. 30⅝"x17"x16⅝" deep. Wt., 160 lbs.

97F343. NET..**1556.00**

1000 WATT LINEAR AMPLIFIER

- **Noise Level —40db below one tone carrier**
- **Automatic load control**
- **RF Inverse Feedback**
- **Automatic Antenna transfer**
- **Comparator tuning meter**

Model 30L-1. 1000 watts PEP, SSB, 1000 watts CW, input on all amateur bands 80 thru 10 meters. Output 500 watts nominal. Design to feed 52 ohm load having no more than 2:1 SWR. Requires 70 to 100 watts drive. Automatic load control for more phone power. RF inverse feedback for better linearity. Switching to off transfers antenna to exciter. Amplifier uses 4 811A's. Since 811A's are instant heating and silicon rectifiers are used in the power supply, there is no warm-up delay. Power supply self-contained and fused. All removable panels interlock. Second harmonic 50db down, 3rd order distortion 30db down. Meter measures plate current, plate voltage, and special tune up circuit. Controls: band selector, PA tuning, PA loading, meter switch; power on/off. Size $14\frac{3}{4}$"W x $6\frac{9}{16}$"H x $13\frac{3}{4}$"D. For 115/230 VAC 50-60 cycles 1200 watts max. Wt., 45 lbs.

97F392. NET..**520.00**

HAMMARLUND AMATEUR EQUIPMENT

TRIPLE CONVERSION GENERAL COVERAGE RECEIVER

Model HQ-180. SSB communications receiver designed to meet the need of both commercial and amateur users. Continuous tuning in 6 bands from .54 to 30 Mc. Band-spread cal. for 80, 40, 20, 15, and 10 meter bands. Offers 17 tube circuit with 3 IF stages and slot filter (60 db attenuation ±5KC of center freq.). Adjustable selectivity, USB or LSB 1-2-3-KC, DSB .5-2-4-6-KC at 6 db down. Sensitivity 1.5 µV on AM with 10 db S/N ratio. Audio output 1.0 watt across 3.2 ohms impedance. Provides AM-SSB/CW reception with noise limiting and AVC provisions. Built-in 100 KC crystal calibrator and BFO. Antenna trimmer, provision for coax. Standby/receive and calibration switch. Built-in S-meter. Phone jack output. Power consumption: 117 VAC, 50-60 cps, 120 W. Grey steel cabinet, die cast aluminum panel. Size 10½x19x13". Shpg. wt., 45 lbs.

97F437. NET..**429.00**

Model HQ-180C. As above, with clock.

97F438. NET..**439.00**

DUAL CONVERSION GENERAL COVERAGE RECEIVER

Model HQ-145X. General coverage communication receiver with Single Crystal controlled channel. Freq. Range 540 KC to 30 MC in four bands. Directly calibrated bandspread with dial markings every 10 KC on 80, 40, and 20 meter bands, every 20 KC on 15 meter band, every 50 KC on 10 meter bands. Dual conversion on 10-30 MC (including 20, 15 and 10 meter amateur bands). Provides SSB/AM/CW reception with unusual sensitivity of 1.75 uV on AM and .5-.8 uV on CW/SSB at 10/1 S/N ratio. Voltage regulated and temp. compensated high frequency oscillator for high degree of stability. Combination of an adjustable 60 db slot filter and exclusive crystal filter assures high selectivity in order to attain solid contact in the most crowded bands. Slot filter ±5 KC at center freq. 445 KC. with max. attenuation 60 db (8/1 vernier tuning ratio). Maximum audio output 1.0 watt at 3.2 ohms (E.I.A. Standard). Antenna input: Nominal impedance 100 ohms unbalanced for single wire antenna or balanced transmission line. Provides AVC and BFO. Power: 105-125 V, 50-60 cps, 80 W. Grey steel cabinet, die cast aluminum panel. 10½"Hx19"Wx13"D. Shpg. wt. 42 lbs.

97F423. NET..**269.00**

Model HQ-145XC. As above, with clock.

97F435. NET..**279.00**

GENERAL COVERAGE RECEIVER ADJUSTABLE AUDIO RESPONSE

Model HQ-100A. Popular priced short-wave communication receiver for novice and advanced amateur. One of the stand-out features of this receiver is the Auto Response circuit, which enables a complete range of audio response from sharp response required in communication to the broad response required for Hi-Fi reception. Continuously tunable from 540 KC to 30 MC. Electrical bandspread tuning with direct dial calibration. Dial markings every 10 KC on 80, 40 and 20 meter bands; every 20 KC on 15 meter band, and every 50 KC on 10 meter band. 10 tube superheterodyne circuit with automatic noise limiter. Q-Multiplier permits continuously variable selectivity to meet all operating conditions. Voltage-regulated and temperature-compensated high frequency oscillator provides extra stability. Maximum audio output 1.0 watt (undistorted) at 3.2 ohms impedance. Sensitivity average 1.75 uV at 10-1 signal to noise ratio. Antenna input nominal 100 ohms balanced or unbalanced. Smooth AVC action on RF and IF stages. BFO variable from zero beat to ±4 KC. Regulated power supply: 105-125 V, 50-60 cps, 80 W. Grey steel cabinet, die cast aluminum panel. Size. $16\frac{1}{4}$x$9\frac{7}{16}$x$9\frac{1}{8}$". 30 lb.

97F415. NET..**189.00**

Model HQ-100AC. As above, with clock.

97F418. NET..**199.00**

COMMUNICATIONS EQUIPMENT

HAMMARLUND

50 WATT SSB-CW, 15 WATT AM TRANSMITTER

HAMMARLUND
HX-50

HX50

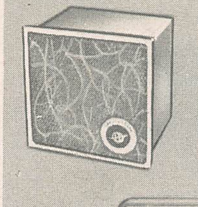
Model HX-50. Covers all amateur bands 80 thru 10 meters plus MARS frequencies. Power output is 50 watts PEP SSB, 50 watts CW, 12 to 15 watts AM. Output meter calibrated 0 to 60 db. 40-80 ohm pi network is fixed tuned. All oscillators are crystal controlled except the VFO. Stability after warm-up better than 100 cycles. Carrier, unwanted sideband, spurious frequencies down 50 db or more; 3rd and 5th order distortion down 30 db or more. Bandwidth 2.7 kc at 6 db down, 4.5 kc at 50 db down. TVI suppressed. Built-in antenna change-over and Compactron and Nuvistor tubes are used. Final amp tube is: 6DQ5A. Controls meter sens.; RF gain; final tune; band selector; key jack; function switch; operations switch; audio level; driver tune; frequency (VFO); microphone jack. Main tuning dial calibrated every 100 kc, vernier tuning every 2 kc, readable to 500 cycles. Separate scale for each band. Size 17½"W.x9⅛"H.x9½"D. For 105-125 VAC. 50/60 cps. 300 w. max. Grey steel cabinet, die cast aluminum panel.
97F430. NET..**399.50**

● *NEW* HAMMARLUND HQ-170A RECEIVER

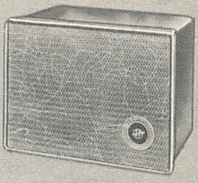
HQ-170A

HQ-170A. Triple conversion 17-tube superheterodyne with automatic noise limiter. Full dial coverage of the 6, 10, 15, 20, 40, 80 and 160 meter amateur bands plus 2 meter calibration. Slot filter razor sharp, 1.5Kc at 6db adjustable. 5Kc over passband for better than 40 db attenuation of 20db at any point of slot depth control. Separate vernier tuning ±3kc for easy SSB tuning. Separate linear detector for CW and SSB reception, plus normal diode AM detection. Tuned IF amplifier: 7 selectivity positions provide mechanical filter type skirt selectivity. Upper and lower sideband selection from front panel. Silicon rectifiers. BFO control ±2kc. Built-in 100kc crystal calibrator. Dial adjust reset. Automatic noise limiter, S-meter is calibrated to 40 db over S9, extremely effective on SSB and CW. Tube complement 6BZ6 RF amplifier, 6BE6 1st converter, 604 HF oscillator, 6BE6 2nd mixer-crystal osc.. 6BA6 455kc IF amp, 6DE6 3rd Mixer-Varible Osc., 6BA6 60kc IF Amp., 6BA6 60kc IF Amp., 6BV8 60kc IF Amp. AVC-AM DET. 12AU7 SSB Product Detector, 6AL5 Noise limiter, 6AV6 1st. AF AMP Delayed AVC Clamp, 6AQ5A Audio output, OB2 Voltage regulator. 6BZ6 Crystal calibrator. 3.3/500 ohm audio output. Added antenna input terminals for coax input for 6 meter antenna or converter unit. Power supply 105 to 125 Volts, 50-60 cycles AC. power consumption 120 watts. Dimensions 10½"Hx19"Wx13"D weight 38 pounds.
97F433. NET..**369.00**
Model HQ-170AC. As above, with clock.
97F434. NET..379.00

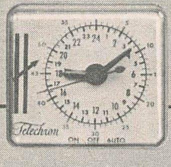
SPEAKERS AND CLOCK-TIMER



S100



S200



Clock

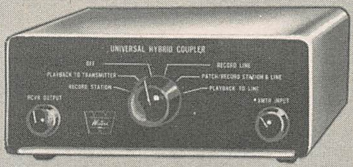
Speaker Type S-200. 6x9" extended range speaker for use with HQ-180, HQ-145X, HQ-170A. 8 watts capacity with 3.2 ohm impedance. Size: 9⅝x9⅝x7". Wt., 2 lbs.
97F424. NET..19.95
Speaker Type S-100. Matching 6"x9" speaker for HQ-100A, HQ-110A. Impedance 3.2 ohms. Size: 9⅝"x9⅝"x7". Wt., 5 lbs.
97F416. NET..14.95
TELECHRON CLOCK TIMER. Combination 24 hour clock and timer, as used in above clock models.
97F417. NET..9.95

NOISE SILENCER

Suppresses impulse noise level in any location for HQ-170 and HQ-180 receivers. Renders receiver inoperative during peak at any individual noise pulse—"hole" not noticeable because of extremely short duration. Makes possible reception of signals that could not otherwise be heard due to heavy ignition or other pulse-type noise. Complete, ready to install.
97F421. NET..

WATERS

● *NEW* UNIVERSAL HYBRID COUPLER



3001

Model 3001. Highly versatile phone patch. Use with any Transmitter and Receiver, SSB Exciter or AM Transmitter. Single 6-position switch provides operation for all combinations of Transmitter, Receiver, Telephone and Tape Recorder. 5 modes of operation—record station; playback to transmitter; record line; patch/record station and line; playback to line. Typical operations posible include: recording both sides of a radio or telephone conversation in conjunction with a tape recorder; playing back a recording to the radio transmitter and monitoring it by using the radio receiver's loud speaker; and the two way conversation between telephone and radio. Mounts horizontally or vertically. Requires no power. Size. 6½" wide, 2¹³⁄₁₆" high, 8¾" deep. Two-tone gray finish. Furnished complete with installation instructions and easy-to-follow set-up procedures. Shpg. wt. 5 lbs.
97F912. NET..**49.50**

DRAKE

DELUXE TRIPLE CONVERSION HAM BAND RECEIVER

PRESELECTOR
FREQUENCY
BAND
RF GAIN
PASSBAND
AF GAIN

2B

Model 2-B. Triple conversion. SSB, AM, CW receiver for amateur bands. Covers 80, 40, 20 and 15 meter bands, and 28.5 to 29.1 mc on 10 meter band. Bandswitch positions and crystal sockets for coverage of 28.0 to 28.6 and 29.1 to 29.7 mc on 10 meters, and 5 600 kc ranges in the 3.5 to 30 mc range. Selectable sideband. Selectivity by ferrite core filter: 0.5 kc, 2.1 kc, or 3.6 kc at 6 db down. Sensitivity ½ uv for 10 db S/N ratio. Series diode noise limiter. Separate product detector for CW-SSB and diode detector for AM. Stability better than 100 cycles after warm-up. Image and IF rejection better than 60 db on ham bands. Internal spurious signals within ham bands less than equivalent 1 uv signal. 1st IF 3.5 to 4.1 mc, 2nd IF 455 kc, 3rd IF 50 kc. First conversion oscillator crystal controlled. For 50 to 75 ohm antenna. Provision for mounting SO 239 coax connector. Muting terminals. Audio output 1 watt at 4 ohms. Less than 3½% distortion. Tubes: 6BZ6 RF amp.; 6U8 mixer-crystal osc.; 6BE6 converter; 6BE6 converter; 6BA6 IF amp.; 6BF6 diode det.-AVC; 6BE6 prod. det.; 8BN8 audio amp.-noise lim.-bias rect.; 6AQ5 audio output; 6X4 rect. Size: 12"Wx7"Hx9"D. For 120 VAC, 60 cycles, 40 watts. Shipping weight. 20 lbs.
97F023. NET..**279.95**

Model 2-BS. Matching speaker for above.
97F025. NET..16.95

Model 2-AC. 100 kc crystal calib.
97F026. NET..16.95

Model 2-BQ. "Q" multiplier-speaker.
97F027. NET..39.95

E. F. JOHNSON HAM EQUIPMENT

"INVADER"
200 WATTS SSB

VIKING "INVADER" AM, CW, SSB TRANSMITTER EXCITER

Model 240-302-2. 200 watts input on CW, 90 watts on AM, and 200 watts PEP on SSB. VFO stability 75 cycles. Covers MARS freqs. and all amateur bands 80 thru 10 meters completely. Single knob wide range loading control. RF controlled. AGC and limiter type ALC deliver greater average speech power. Pi network output will match 30 to 600 ohm resistive loads. Meter measures plate voltage, grid current, screen current or RF output. Power output on SSB is up to 125 watts. Xtal. filter provides 60 db. or more suppression of unwanted sideband, carrier and spurious frequencies 55 db or more down, distortion products 35 db or more down. Fuses in AC line plug. Tubes: 12AU7 carrier oscillator; 6AH6 9 mc amp.; 6CX8 1st mixer and heterodyne osc.; 6AU6 VFO; 12AT7 1st audio and relay amp.; 12AT7 2nd audio and VOX amp.; 6U8 3rd audio and anti-trip amp.; 6AH6 2nd mixer; 12BY7 RF driver; 6146 (2) RF power amplifier; 6T8 ALC and audio AGC; 6AL5 VOX and anti-trip rect.; OA2 VR; 5U4 LV rect.; 5R4 HV rect.; 6X4 bias rect.; OA2 bias reg. Light grey panel, wrinkle grey case with aluminum trim. Size: 11⅝"Hx21"Wx12½"D. For 105/125 VAC, 50/60 cps., 325 watts. Approved for FCDA matching funds. Shpg. wt., 67 lbs.
97F520. (Wired, tested). **NET** **619.50**

VIKING
"ADVENTURER"

"ADVENTURER" 50 WATT CW TRANSMITTER KIT

Model 240-181-1. 50 watts CW input on all amateur bands 80 thru 10 meters. Crystal controlled, provision for external VFO. Pi network will handle a wide variety of antennas without antenna tuner. Matches 50 to 500 ohms and tunes out large amounts of reactance. Meter measures either grid or plate current. Inductance-capacitance TVI filters and large cabinet junction overlaps provide excellent TVI protection. Provision for external modulator, available from Newark. Fused power supply will also power auxiliary equipment. Tubes: 807 final amp.; 6AG7 oscillator; 5U4G rectifier. Size: 10⅜" W x 8⅛"H x 7⅜"D. Finished in maroon and grey. For 105/120 VAC, 50/60 cycles, 140 watts. Shpg. wt., 19 lbs.
97F475. (Kit w/instructions). **NET** **69.50**

250-30-3

VIKING "MATCHBOX" ANTENNA MATCHING UNITS

Bandswitching antenna matching units match a wide range of impedances and tune out large amounts of reactance on all amateur bands 80 thru 10 meters. Also provide separate matching of receiver. Heavy-duty relay switches antenna and grounds receiver antenna terminals during transmitting. Directional coupler for SWR measurements may be used separately. Tuning is broad enough to cover large portion of band with one setting. 20 db harmonic suppression. Maroon and grey finish. Approved for FCDA matching funds.

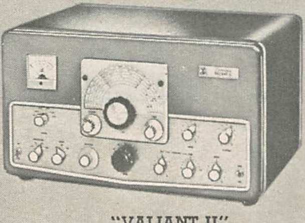
KILOWATT MATCHBOX

Model 250-30-3. Matches 52 ohm coaxial line to reactive and non-reactive loads ranging from 50 to 1500 ohms for balanced lines, or 50 to 2000 ohms for unbalanced lines. Includes a time delay circuit to prevent relay contact arcing. Handles 1 KW AM or CW, 3 KW PEP SSB. With SO-239 connector for 52 ohm coax. Size: 17¼"W x 10⅞"H x 12⅛"D. Shpg. wt., 27 lbs.
97F464. With directional coupler. **NET** **154.50**

250-23-3

275 WATT MATCHBOX

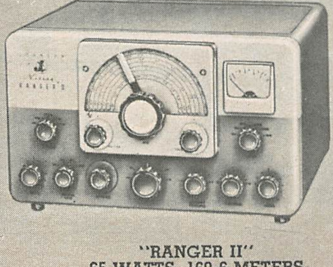
Model 250-23-3. Matches 52 ohm coaxial cable to reactive and non-reactive loads ranging from 25 to 1500 ohms for balanced lines, and 25 to 3000 ohms for unbalanced lines. Will handle 275 watts AM or CW, 750 watts PEP SSB. Size: 9⅞"W x 7"H x 10½"D. Wt., 11 lbs.
97F463. (With directional coupler) **NET** **94.95**
97F465. 250-23-1 (Without directional coupler) **NET** **64.95**



"VALIANT II"
200 WATTS AM, 275 WATTS CW

"VALIANT II"—200 WATTS AM, 275 WATTS CW

Model 240-105. New provisions for plug-in SSB operation with no internal transmitter modifications necessary. Two coax. fittings; one 5 pin plug—one coax. for VFO output, one for SSB input. Complete band switching on all amateur bands 160 thru 10 meters. Full 275 watts on CW and SSB and 200 watts on AM. VFO or crystal control. VFO operates in the 1.75 to 2mc and 7.0 to 7.45mc ranges. Completely TVI suppressed. Audio range to 3500 CPS. Timed sequence keying. Delivers 620 volts @ 500 ma; 300 volts @ 90 ma; 6.3 volts AC @ 6 amps. Each band calibrated in 10 KC divisions. 6:1 tuning ratio. Pi-network with silver plated inductor; handles 50 to 60 ohms and tunes out large amounts of reactance. Tubes: 6AU6; OA2VFO screen VR; 6CL6 crystal osc/VFO isolator; 5763 driver; 6146 (3) amp; 12AX7 cascade sp. amp; 12AU7 aud. driver; 6146 (2) mod.; 12AU7 keyer; 6AQ5 clamp; 866A (2) HV rect.; 5V4G LV rect.; 6BY5GA bias rect.; VR-105 (2) screen VR. Maroon and grey steel case. Size: 21"W x 11½"H x 14"D. Shpg. wt., 83 lbs.
97F491. Wired and Tested. 240-105-2. **NET** **495.00**
97F490. Kit with Instr. 240-105-1. **NET 375.00**



"RANGER II"
65 WATTS, 160-6 METERS

"RANGER II"—160 THRU 6 METER, MEDIUM POWER TRANSMITTER

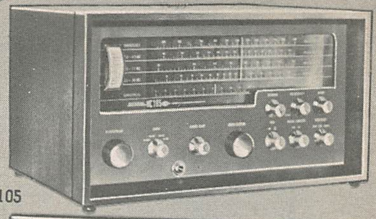
Model 240-162-2. Medium power AM/CW transmitter. 75 watts input CW, or 65 watts AM on all amateur bands 160 thru 6 meters. Frequency may be controlled by crystals, or stable, temperature compensated VFO. Large changes in frequency may be made without retuning. Pi network will match 50 to 500 ohms resistive load and tune out large amounts of reactance. Final amplifier is a 6146. Single knob band-switching. Electronic timed sequence keying (grid block) uses no keying relays, eliminates chirps and clicks. Speech amplifier limits response to 250-3000 cycles. Complete TVI suppression. Self contained power supply delivers 500 to 525 VDC and 300 VDC. Fuses in line plug. VFO has edge lighted plexiglas dial, plexiglas pointer positioned for minimum parallax, 10 kc calibration increments on each band. 6:1 tuning ratio. Filament and plate voltages and modulation are available on rear panel for auxiliary transmitters such as Viking "6N2." Audio will drive higher power modulators. Relay jack provides 115 VAC energized by transmit switch for control and antenna relays. Size: 15½"Wx9⅝"Hx14"D. For 105-120 VAC, 50/60 c., 260 w. Two-tone grey with maroon knobs. Approved for FCDA matching funds. Wt., 54 lbs.
97F459. Wired and tested. **NET** **359.50**
97F458. 240-162-1 (Kit with instruction.) **NET** **249.50**

NATIONAL RECEIVERS

● *NEW* NC-105 GENERAL COVERAGE COMMUNICATIONS RECEIVER

NC-105. Broadcast and Short Wave receiver. A general coverage communications receiver featuring variable selectivity on all receiving modes, bandspread tuning. Calibrated foreign and amateur bands. Peaking Q multiplier works on CW and AM continuous variable selection 500cps to 7kc. Separate product detector BFO and SSB with full AGC action. RF and audio controls permit precise adjustment on all signals 550kc to 30mc. S meter assures accurate tuning of incoming signal. Matches any antenna 50-33 ohms. Built-in 5" speaker and shorting jack for headphones. New special output for connecting the NC-105 directly to your HiFi system or tape recorder for world wide Hi-fidelity. Full wave rectification for maintaining constant level power to the super-sensitive circuits. 105-125 VAC/60 cycles. Power consumption 49 watts. 7⅝" high x 13½" wide x 8⅝" deep in steel case. Shpg. wt., 28 lbs.

98F360. NET........................ **119.95**


NC-105

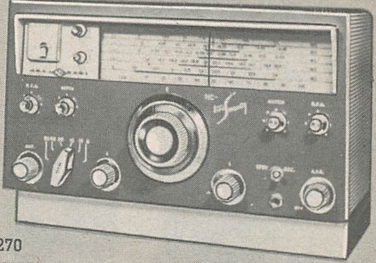
HAM BAND RECEIVER FOR 80 THRU 6 METER BANDS

Model NC-270. Covers amateur bands only 80 thru 10 meters AM, CW, SSB. Double conversion on all bands. Sensitivity better than 1.5 uv for 1 watt output, 10 db. S/N ratio. "Ferrite Filter" provides 600 cycles, 3 kc, 5 kc or USB/LSB 2.5 kc selectivity at 6 db down. "BiFilar T Notch" tunable over entire IF band-pass, provides more than 50 db unwanted signal rejection. Separate heterodyne type detector for CW/SSB. ANL. Zero temperature coefficient, ceramic coil forms and double spaced tuning capacitors improve stability. 12:1 tuning ratio. Phones jack, 3.2 ohm speaker output. "Flip Foot" tilts receiver for easy viewing of panel. 8 tubes plus rect. and volt. reg. Blue steel case. Size: 15⅝Wx8⅝Hx9"D. For 105/125 VAC, 50/60 cycles, 75 watts. Shpg. wt., 75 lbs.

98F357. NET........................ **249.95**

Model NTS-3. Speaker for above. 10 lbs.

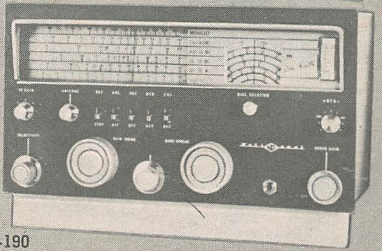
98F358. NET........................ 19.95


NC-270

NEW DOUBLE CONVERSION GENERAL COVERAGE RECEIVER

Model NC-190. General coverage receiver covers .54 to 30 mc in 5 bands. Dial selector allows selection of amateur band or foreign broadcast calibration of bandspread dial. Selectable sideband SSB, AM, and CW. Double conversion above 4 mc, 1st IF 2215 kc, 2nd IF 230 kc. Automatic Gain Control and edge reading "S" meter operate on all modes. Product detector for CW/SSB. "Ferrite Filter" provides 600 cycle, 3 kc, or 5 kc selectivity at 6 db down. Sensitivity better than 1 uv for 10 db S/N ratio. Separate noise limiters for SSB/CW and AM. 3.2 ohm speaker terminals and headphone jack. Bandspread calibrated on all amateur bands 80 thru 10 meters and the 13, 16, 19, 25, 31, and 49 meter foreign broadcast bands. Bandspread tuning ratio 60:1. Steel chassis, ⅛" steel panel, and ceramic coil forms for frequency stability. 8 tubes plus rect. and volt, reg. Blue steel case. Uses same speaker as NC-270. Size: 15¾"W x 8¾"H x 9"D. For 105/125 VAC, 50/60 cycles, 75 watts. Shipping weight, 28 pounds.

98F359. NET........................ **219.95**

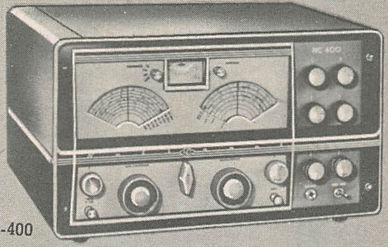

NC-190

DELUXE DOUBLE CONVERSION GENERAL COVERAGE RECEIVER

Extremely Versatile Laboratory Type

Model NC-400. General coverage receiver covers .54 to 31 mc with amateur bands 80 thru 10 meters calibrated on bandspread. AM, CW, SSB. Double conversion above 7 mc. Second conversion oscillator crystal controlled. BFO variable but may be crystal controlled. Receiver stability after warm-up .002%. IF selectivity 16 kc, 8 kc, 4 kc, 3.5 kc at 6 db down. Crystal filter provides 5 degrees of selectivity between 3.5 kc and 150 cycles at 6 db down. Selectable sideband at 3.5 kc selectivity. Heterodyne detector for SSB-CW. ANL, manual noise limiter for SSB-CW. Sensitivity approximately 1 uv for 10 db S/N ratio. Image rejection better than 65 db on all bands. For 52 ohm antenna, has standard SO-239 coax. connector. Audio output 1 watt at 600 ohms and 3.2 ohms impedance. May be rack mounted. 15 tubes plus rectifier, voltage regulator and current regulator. Black and Gray steel case. Size: 20W x 15H x 18"D. For 115/230 VAC, 60 cps, 138 watts. Shpg. wt., 70 lbs.

98F349. NET........................ **895.00**


NC-400

● *NEW* NC-155 DOUBLE CONVERSION AMATEUR BAND RECEIVER

Model NC-155. Covers amateur bands 80 thru 6 meters with exceptional stability, drift is less than 1 kc over 5 hour period or 80-10 meters. Sensitivity better than 1.0 uv for 10 db S/N ratio 80-6 meters. 60 to 1 vernier dial, seperate product detector, special AGC for good SSB performance. Diode detector for AM. "Ferite Filter" provides 600 cps, 3.0 kc, and 5.0 kc selectivity. Edge reading "S" meter. Crystal calibrator. Rear panel connection for external control of receive-transmit. "Flip-Foot" to set receiver at convenient angle. 1st IF, 2215 kc; 2nd IF, 230 kc. 50 ohm unbalanced antenna input. Audio output, 3 watts at 3.2 ohms. Controls: Tuning; RF gain; AF gain USB/LSB; BFO; Antenna trimmer; Bandswitch; Phone jack; Standby-receive switch; Calibration; Selectivity; Function (AM; ANL; CW-SSB with AGC; CW-SSB; AM; ANL w/o AGC). Size: 8⅝Hx15⅝Wx 9"D. For 105-125 VAC, 50-60 cps, 75 watts. Shpg. wt., 28 lbs.

98F361. NET........................ 199.95

Model NTS-3B. Matching speaker for above. Shpg. wt., 10 lbs.

98F362. NET........................ 19.95

NC-155

DELUXE AMATEUR BAND RECEIVER

Model NC-303. Covers 160 thru 10 meters and 11 meters. Also has a 30 to 35 mc band with calibration for the 6, 2, and 1¼ meter bands. Double conversion with 2nd conversion osc crystal controlled. First IF 2215 kc, 2nd IF 80 kc. "Q" multiplier provides 750 cycle notch at 10 db down. Selectivity 8 kc, 3.5 kc, 2kc, or 400 cycles at 6 db down. Selectable sideband at 2 kc selectivity. Detectors for AM and SSB-CW. Separate noise limiters for AM & SSB-CW. "S" meter. Sensitivity better than 1 uv for 10 db S/N ratio. Image rejection better than 50 db on all bands. Large slide rule tuning dial shows readable to 2 kc. Size: 19½W x 11¼H x 15"D. Will rack mount. Finished in black and grey enamel. For 105/130 VAC, 50/60 cycles, 70 watts. Shpg. wt., 64 lbs.

98F345. NET........................ **449.00**

Model NTS-2. Matching speaker. Size: 11¾ x9½x8". Shpg. wt., 10 lbs.

98F346. NET........................ 21.95

Model XCU-300. As above, but without WWV converter. Shpg. wt., 2 lbs.

98F356. NET........................ 23.95

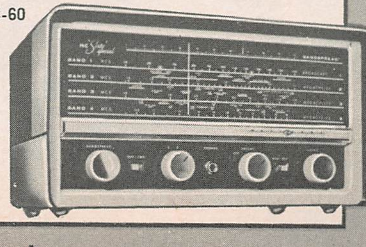
NC-303

4 BAND AMATEUR AND SHORT WAVE RECEIVER

Model NC-60. Ideal receiver for the beginning ham or SWL. Features complete coverage .55 to 31 mc incl. std. broadcast. Large easy to read dial with white markings on black background. Markings on dial show where various signals, such as marine, aircraft, foreign stations, and amateurs are to be found. Electrical bandspread with logging scale for ease in tuning. Beat frequency oscillator for reception of CW and SSB signals. Has built-in 5" speaker. Phones jack on front panel cuts out speaker when earphones are used. Controls: volume: bandswitch; tuning; bandspread; standby/receive switch; beat freq. osc. off/on. 4 tubes plus rectifier. Size: 13½"W x 7⅝"H x 8⅝"D. Two-Tone black and grey finish. For 105/125 volts AC or DC, 25 watts. Wt., 12 lbs.

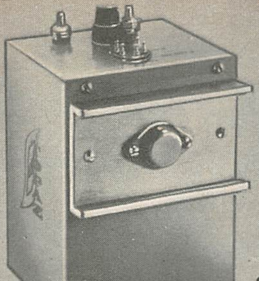
98F343. NET........................ **59.95**

NC-60



Newark Can Supply All Your Amateur Needs

AMATEUR EQUIPMENT AND ACCESSORIES



C10WG

TOPAZ

● *NEW* 250-260 WATT 12 VDC MOBILE POWER SUPPLIES

Model C10WG. Transistorized power supply for use on 11-15 VDC, 13 VDC nominal. Provides 250 watts output at 85% efficiency. Regulated drive. Protected against momentary short circuits. Epoxied magnetic components. Fused primary circuit. Output: 600 VDC, 415 ma; 300 VDC, 500 ma; 0-120 VDC (pos. or neg.), 50 VA max. Size: 3 15/16x4 3/8x6 1/8". Shpg. wt., 11 lbs.

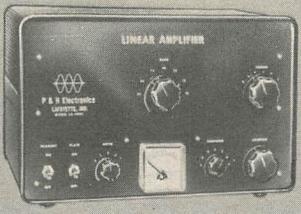
97F300. NET **89.50**

Model C10XDG. As at left, for the Collins KWM-2 or KWM-1. Supplies 800 VDC, 325 ma; 280 VDC, 210 ma; —50 to —90 VDC bias (260 watt output). With LC filter and turn on relay.

97F301. NET **134.95**

Model C10W. Same as C10WG except less bias. Also supplies 120 VAC, 400 cps at 50 VA.

97F302. NET **79.50**



LA-400C

P&H ELECTRONICS

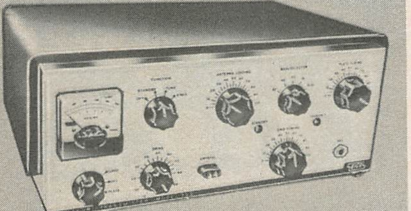
LINEAR AMPLIFIER KIT

Model LA-400C. Compact grounded grid linear amplifier. Input: 800 watts PEP SSB, 200 watts AM, 400 watts CW, FM, PM. Covers all amateur bands, 80-10 meters. Drive requirements: 60 watts SSB, 15 watts AM, 30 watts CW, FM, PM. Meter measures RF input voltage, plate current, RF amperes output. Untuned input circuit for operating ease. Distortion products: 3rd order, —37 db; 5th order, —47 db. Input and output impedances: 50-70 ohms. Pi network output. Tubes: 2-816 rect., 4-1625 (modified) amp. For 115 VAC, 60 cps. Size: 9 1/2x15 1/4x11". Shpg. wt., 65 lbs.

97F305. Kit with instrs. **NET** **179.95**

97F306. As above, wired and tested.

NET **219.95**



720

EICO EQUIPMENT

90 WATT CW TRANSMITTER

Model 720. Covers 80 through 10 meter amateur bands. Operation: xtal and VFO. Power input: 90 watts CW (novice limit calibration on meter); and 65 watts AM-phone with EXT plate modulation. Design features include one-knob band switching, oscillator keying for break-in operation, matching antennas from 50 to 1000 ohms. Completely sealed cabinet and careful bypassing and choking of all input and output leads for effective TVI suppression. Complement: 6146 Final amplifier. Auxiliary power socket provided, no shock hazard at key terminals. Protection of final amplifier is provided by a clamper tube circuit. For 115 volts, 60 cycle AC. Cabinet size: 15x6x15". Wired and tested. Shpg. wt., 30 lbs.

97F571. NET **119.95**

Model 720K. As above, but kit with instructions.

97F570. NET **79.95**

730

MODULATOR KIT

Model 730. High Level Universal Modulator. For phone operation, capable of delivering 50 watts of Class B audio power, more than enough to modulate 100% the EICO 720 transmitter at full input. May be used to modulate any transmitter having an RF input up to 100 watts. EL 34 output tubes. For 117 volts, 60 cycles: Size: HWD-6" x 14" x 8". Wired and tested. Wt., 21 lbs.

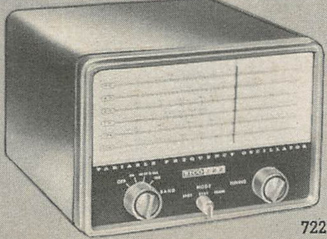
97F573. NET **79.95**

Model 730K. As above, but kit with instructions.

97F572. NET **49.95**

Model E-5. Cover for above.

97F574. NET **4.50**



722

SELF POWERED VFO

Model 722. Highly stable VFO with separate scales for the 80, 40, 20, 15, and 10 meter bands. 10 meters is covered in two segments. Buffer stage. Operates on 3.5 to 4 mc, 7.0 to 7.3 mc, and 7.25 to 7.64 mc. Enough output (10 to 20 volts) to drive any modern transmitter. Large slide rule dial. Transformer operated silicon diode power supply. Size: 8 1/2Wx6Hx9"D. Wired and tested. For 117 VAC, 60 cyc. Shpg. wt., 7 3/4 lbs.

97F586. NET **59.95**

Model 722K. As above, but kit with instructions.

97F587. NET **44.95**

AMECO

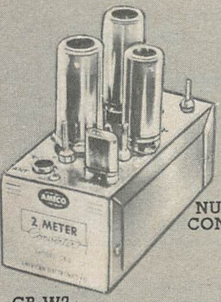
NUVISTOR CONVERTERS

These 6, 2, and 1 1/4 meter (220 mc) converters use three Nuvistors for low noise figure and high gain. Average gain 50 db. Noise figure: 50 mc-2.5 db; 144 mc-3.0 db; 220 mc-4.0 db. Image and spurious response more than 70 db down; IF rejection more than 100 db. RF gain control. IF output frequency 14-18 mc, easily changed when a new receiver is bought. Other IF's on special order. Tubes: 6CW4 RF amp.; 6CW4 RF amp.; 6CW4 mixer; 6J6 crystal osc. Requires 100 to 150 VDC. 30 ma; 6.3 V, 1 A. Size: 2 1/2"W x 2"H x 6 3/4"D. Satin finished copper. Wired and tested. Shipping weight, 2 pounds.

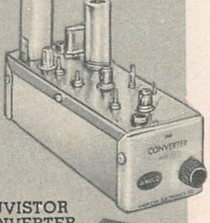
97F755. CN50W, 6 meters. **NET** **49.95**
97F756. CN144W, 2 meters. **NET** **49.95**
97F757. CN220W, 1 1/4 meters. **NET** **49.95**

As above, but kit with instructions.

97F758. CN50K, 6 meters. **NET** **34.95**
97F759. CN144K, 2 meters. **NET** **34.95**
97F760. CN220K, 1 1/4 meters. **NET** **34.95**



CB-W2



NUVISTOR CONVERTER

NUVISTOR VHF PREAMPLIFIERS

Nuvistor preamplifiers for use ahead of 6, 2, or 1 1/4 meter (220 mc) converters. Uses two tuned circuits and neutralized 6CW4 Nuvistor. Over 20 db gain. Noise figure: 50 mc-2.5 db; 144 mc-3.0 db; 220 mc-4.0 db. Size: 2 1/2x3 1/2x2". For 100 to 150 VDC, 8 ma; 6.3 volts, .13 amp. Wired and tested. Shipping weight, 10 ounces.

97F764. PV-50, 6 meters. **NET** **13.95**
97F765. PV-144, 2 meters. **NET** **13.95**
97F766. PV-220, 1 1/4 meters. **NET** **13.95**

AMECO
PREAMPLIFIER

NUVISTOR PREAMP

6 AND 2 METER CONVERTERS

Both 6 and 2 meter converters have noise figure better than 4 db. Gain: 50 mc-20 db; 144 mc-30 db. Image and spurious rejection more than 70 db; IF rejection better than 100 db. IF output freq. 14-18 mc. but easily changed. Other IF's on special order at $1.00 extra. Also available for any specified input freq. Tubes: (6 meter): 6BS8 RF amp.; 6U8A osc-mixer. Tubes (2 meter): 6ES8 cascade RF amp.; 6U8A RF amp.-mixer; 6J6 osc.-mult. Size: 8 1/2"Wx2"Hx5"D. Satin finished copper. Power (6 meters): 100 to 150 VDC, 30 ma; 6.3 volts. 1.26 amp. Power (2 meters): 100 to 150 VDC, 16 ma, 6.3 volts. .85 amp. Wired and tested. Shpg. wt., 2 lbs.

97F751. CB-6W, 6 meters. **NET** **27.50**
97F753. CB-2W, 2 meters. **NET** **33.95**

As above, but kit with instructions.

97F750. CB-6K, 6 meters. **NET** **19.95**
97F752. CB-2K, 2 meters. **NET** **23.95**

PREAMPLIFIERS FOR 20, 15 AND 10

Preamplifiers for use ahead of short wave receivers. Provides 20 db gain. Has lower noise figure than most multiband receivers. Two tuned circuits improve spurious and image rejection. Available for 40 or 80 meter bands on special order. One tube. Size: 3 3/4x2 1/2x3 1/2". For 117 VAC, 60 cyc. Wired and tested. Wt., 10 oz.

97F767. PH-10, 10 meters. **NET** **13.95**
97F768. PH-15, 15 meters. **NET** **13.95**
97F769. PH-20, 20 meters. **NET** **13.95**

AMECO
POWER SUPPLY

PS-1W

POWER SUPPLY FOR AMECO EQUIPMENT

Model PS-1W. For use with all Ameco equipment listed on this page. Delivers: 125 VDC, 50 ma; 6.3 VAC. 2 amps. Size: 2 1/2x4 1/4x4 1/2". Satin finished copper chassis. Wired and tested. Shpg. wt., 2 1/2 lbs.

97F754. NET **11.50**

MASTERCRAFTERS

24-HOUR CLOCK

Model 191. 8" dia. 24 hour chrome plated metal wall clock. Inner dial has south polar projection map of the world indicating world time zones. Dial can be adjusted for various time zones. Self starting. UL approved. 110 VAC, 60 cycles. Shpg. wt.: 1½ lbs.
97F911. NET **8.47**

● *NEW* 24 HOUR CLOCK

Model 2324. Efficient, accurate 24 hour wall clock. 12" white dial with black hands and numerals, red sweep second hand. 13½" chrome case. Self-starting, UL approved. Shpg. wt., 5 lbs.
97F906. NET **11.97**
Model 3224. As above, but illuminated.
97F907. NET **16.73**

● *NEW* DESK OR WALL CLOCK WITH TIMER

Model 7112. 24 hour clock with 10 minute timer to remind operator to identify as required by the FCC. Timer turned on and off by control on front of clock. May be used on desk or hung on wall. South polar projection map on face. Size: 6¾Wx9½Lx3"H. UL appr. Shpg. wt. 2 lbs.
97F904. NET **12.24**

NUMECHRON

24-HOUR CLOCK WITH TIMER

Model 124. 24 hour, direct reading clock with 10 minute repeating timer which buzzes a warning to sign your call letters. Timer can be turned on when beginning QSO. Clock operates continuously. Dome shaped window glows in the dark. ¼" high numerals. 110V, 60 cps. 4x7¾x4" plastic walnut case. Shpg. wt.: 4 lbs.
97F909. NET **22.50**
Model 100-24H-¼. Similar to above less timer.
97F908. NET **15.00**

EICO

GRID DIP METERS

Model 710K. Covers 400 kc to 250 mc in 7 overlapping ranges. Uses a 500 ua meter. Determine operating freq., neutralize, etc. Easy to build with complete instructions included. Complete with power supply. Wt., 3 lbs. For 117 volts 50/60 cycle AC.
97F575. NET Kit Form. **29.95**
Model 710. Factory wired and tested.
97F576. NET **49.95**

MILLEN

LABORATORY GRID DIP METER

Model 90651. Used to find resonant freq. of non-energized tuned circuits or as signal generator. With 2" meter. Range: 1.7-300 mc. 105-125 v., 60 cps. Size, 7x3 3/16x3⅜". Shpg. wt., 3½ lbs.
97F208. NET **64.50**

97F231.	**46721**	probe 0.22-65 mc.	**NET**	**1.95**
97F232.	**46702**	coil. 925-2000 kc.	**NET**	**6.72**
97F233.	**46703**	coil. 500-1050 kc.	**NET**	**6.72**
97F234.	**46704**	coil. 325-600 kc.	**NET**	**6.72**
97F235.	**46705**	coil. 220-350 kc.	**NET**	**6.72**

AUDIO PHASE SHIFT NETWORK

SSB75012. 90 degree differential phase shift unit for single sideband transmitter or receiving service. Factory sealed and adjusted. Mounts like IF transformer. 1 7/16x2x4".
97F209. NET **9.75**

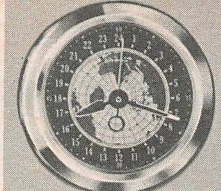
B & W

AUDIO PHASE SHIFT NETWORK

Model 350-2Q4. Highly compact, shielded, octal based audio phase shift network for SSB rcvg. and xmtg. Unit splits any audio signal within the range of 300-3000 cycles into two equal-amplitude components 90° (±1.5°) out of phase with respect to one another. Shpg. wt., 1 lb.
40F997. NET **4.95**

GROUNDED GRID FILAMENT CHOKES

Model FC-30A. Twin dual winding filament choke with 30 amp current carrying capacity. Four winding feature permits separate filament transformer and cathode circuit metering for each of two tubes.
40F994. NET **10.45**
Model FC-15. Dual winding choke with current carrying capacity of 15 amps.
40F993. NET **7.50**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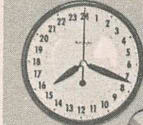
337-S1

GNF-1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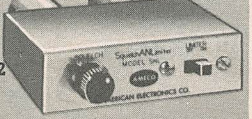
SNL-12

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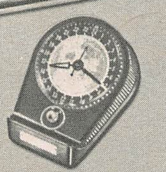
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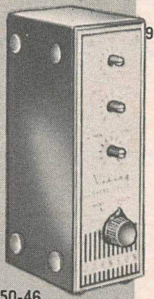
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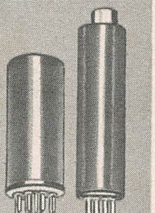
710K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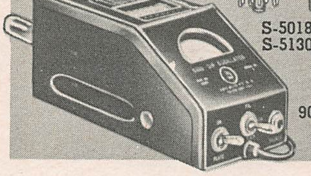
S-5130


90651

SARKES TARZIAN

SILICON REPLACEMENTS FOR RECTIFIER TUBES

Plugs into the old tube socket. Handle peak currents better than tubes, require no filiament supply, give higher output voltage with better regulation.

Stk. No.	Type	DCMA	Replaces	Net
21F1533	S-5018	750	5U4,5Y3	13.00
21FX1614	S-5130	300	866A,3B28	29.15

BUD

FREQUENCY CALIBRATOR

Model FCC-90B. Self-powered 100 kc xtal calibrator. Has on-off switch. For 110 VAC. Size: 5½x3x2½". Shpg. wt., 1½ lbs.
47F951. NET **20.48**

STATION ACCESSORIES

WATERS MANUFACTURING

● *NEW* 75S-1 KWM-2 "Q" MULTIPLIER-NOTCH FILTER

Model 337-S1. "Q" multiplier/notch filter custom designed for use with Collins 75S-1 receiver. Rejection tuning control is installed in place of AF gain control, AF gain control is made concentric with RF gain control. Complete with escutcheon and knobs perfectly matched to the 75S-1. Specs.: notch depth, 40 db min.; tuning range ±2.5 kc. Power taken from 75S-1. Easy to follow installation instructions included. Shpg. wt., 22 lbs.
97F913. NET **33.95**
Model 337-M2. As above. but for Collins KWM-2. New hole must be drilled in panel.
97F914. NET **33.95**

AMECO

● *NEW* SQUELCH AND ANL FOR MOBILE

Model SNL-12. Squelch and automatic noise limiter for mobile use. Requires only 12 VDC B+, ideal for modern 12 volt auto receivers. Uses 2-12 volt hybrid tubes. Controls: squelch adjust; ANL on-off. Shpg. wt., 39 lbs.
97F761. NET **17.75**
Model ANL-12. Same as above, but noise limiter only. Shpg. wt., 39 lbs.
97F762. NET **7.95**

E. F. JOHNSON

NOISE SUPPRESSOR KIT

Model 250-801. Designed to eliminate automobile ignition and electrical interference. Ideal for mobile radio operation. Includes: 4 coax. capacitors, 8 sparkplug suppressors, 1 V-regulator suppressor, shielded cable and braid, all necessary hdw. and instructions. Shpg. wt., 2 lbs.
97F519. NET **13.50**

HALLICRAFTERS

AUTO NOISE SUPPRESSION KITS

Model HA-3. Provides bypass capacitors, ground braid and everything else needed to minimize noise. Shpg. wt., 1 lb.
98F094. NET **13.48**
Model SP-3. 8 spark plug resistors for cars without resistance spark plugs. Can be used with or without HA-3. Shpg. wt., 1 lb.
98F095. NET **2.95**

MONARCH

● *NEW* GENERATOR NOISE FILTER

Model GNF-1. Reduces generator noise for better S/N ratio. Increases range of receiver. Frequency range: 3-30 mc. High "Q" parallel circuit. Trimmer for fine frequency adjustment. Must be shunted for 5-7 mc or 3-5 mc. Moisture sealed. Mounts on generator. Max. gen. current: 25 amp. Made in Japan. Shpg. wt., 12 oz.
45F082. NET **2.31**

E. F. JOHNSON

VIKING PHONE PATCH

Model 250-46. Fully automatic Hybrid transformer type unit provides for P.T.T., VOX, or manual operation on SSB or AM. Line null control offers excellent isolation. Separate gain controls for transmitter and receiver inputs. RF filtering and bypassing prevents RF feedback from telephone line. Heavy gauge steel enclosure with modern styling. Maroon finish. Removable etched aluminum panel. Size: 2x6x2½". Wt., 3½ lbs.
97F518. NET **25.00**

INSTRUMENTS, MIKES CRYSTALS, TOWERS

Obtain the best results from your antennas. An SWR bridge can be used to determine how much power is actually being emitted by a transmitter or how properly the antenna is matched to a transmitter.

JONES SWR BRIDGES & INDICATORS

Model 261. Coupler. Operating range: 500 kc—225mc. For 52 ohm coax line. May be left in transmission line as a monitor at up to 1 KW RF power. Complete instructions included. Used with 262 Indicator below or a home made type. UHF type connectors. Size 3x4¾". Shpg. wt., 1 lb.
97F295. NET......**22.50**

Model 262. Indicator. Used with 261 coupler above. 4¼x4¼x4". Shpg. wt., 2 lbs.
97F296. NET......**14.50**

Model 263.2. Both coupler and indicator similar to 261 and 262 except calibrated to read RF power in actual watts on 10, 100, and 1000 scales. UHF type connectors.
97F297. NET......**85.00**

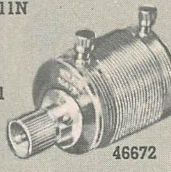
Model 263.3. As above with "N" connectors.
97F292. NET......**85.00**

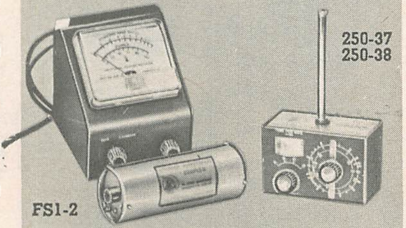
Model 711N. Single unit with both coupler and indicator. 25-1000 mc on 50 ohm coax line. Ranges: 0-30, 30-75, 75-300 watts. Type N connectors, includes UHF adapters. Size: $3\frac{1}{16}$x$5\frac{5}{32}$x3". Shpg. wt., 3 lbs.
97F293. NET......**135.00**

E. F. JOHNSON SWR BRIDGE

Model 250-37. Coupler. 7-150 mc to 1 kw on 52 ohm line. $2\frac{5}{16}$x6¼". Shpg. wt., 2 lbs.
97F477. NET......**11.75**

Model 250-38. Indicator for above. 0-100 scale. 4x4x4¼". Shpg. wt., 4 lbs.
97F476. NET......**25.00**





MILLEN

Model 90672. ANTENNA BRIDGE. Measures 5-500 ohms impedance up to 200 mc. Used to measure antenna radiation resistance, antenna resonance, transmission line impedance, SWR, receiver impedance and many other radio freq. impedances. Impedance is read directly on dial scale. Shpg. wt., 6 lbs
97F211. NET......**45.00**

Model 90671. SWR BRIDGE. 1-150 mc on 52 or 75 ohm coax line. External 1 ma meter must be used to indicate deviation from balance. Calibration curve supplied. Shipping wt., 6 lbs.
97F206. NET......**16.80**

ANTENNA BRIDGE BALUNS

Accurately - wound auto - transformers for adapting from balanced to unbalanced lines and vice-versa. Convenient for connecting balanced impedance to antenna bridge above, or for feeding balanced line from unbalanced xmitter output. Stops losses from mismatch. Handle 500v peak, except 46672-80 that takes 300v. Wt., 1 lb.

Stock No.	Mfr's. Type	Meter Band	Frequency Range (mc)	NET EACH
97F212	46672-10	10-11	26.96-29.7	7.50
97F213	46672-15	15	21.0-21.45	
97F214	46672-20	20	14.0-14.35	
97F215	46672-40	40	7.0-7.3	
97F216	46672-80	75-80	3.5-4.0	

MONARCH FIELD-STRENGTH METER

Model FS1-2. For measuring signal strength of transmitter in the vicinity of antenna. Needs no antenna connection. Broad tuning covers 1.6 to 150mc in four bands. Accuracy: 10%. Sturdy case has magnet for attachment to metal surfaces. 10¾" telescoping antenna. Size: $2\frac{3}{16}$x$3\frac{3}{16}$x$1\frac{9}{16}$". Complete with instructions. Made in Japan.
46F072. NET......**8.40**

AMATEUR BAND CRYSTALS

All are fundamental type FT-243 (Fig. A) including * for novice use. Except: † 3rd overtone (Fig. B), ‡ 5th overtone (Fig. B).

Stock No.	XTAL Freq. kc	Operating Freq.	NET
27F462	1750-2000	1750-2000 kc	2.95
27F463	3500-4000	3500-4000 kc	2.95
27F325	3700-3750*	3700-3750 kc	2.95
27F326	7000-7300	7000-7300 kc	2.95
27F327	7150-7200*	7150-7200 kc	2.95
27F328	7000-7175	14000-14350 kc	2.95
27F329	7000-7150	21.000-21.450 kc	2.95
27F330	7034-7083*	21.100-21.250 kc	2.95
27F467	7000-7425	28000-29.700kc	2.95
27F469	8334-9000	50.00-54.00 mc	2.95
27F472	25000-27000†	50.00-54.00 mc	3.95
27F473	50000-54000‡	50.00-54.00 mc	4.95
27F468	8000-8222	144.0-148.0 mc	2.95
27F331	8060-8160*	145.0-147.0 mc	2.95
27F471	24000-24666†	144.0-148.0 mc	3.95

See other crystals on page 000 & 000.

MILLEN CRYSTAL SOCKETS

Low loss steatite with silver-plated phosphor-bronze contacts, and tinned solder lugs. For chassis mtg. 2 ozs.

Stock No.	Type	Pin Space	Pin Dia	Xtal Type	NET
38F656	33102	.487"	.095	FT243	.36
38F658	33302	.487"	.050	HC6U	.24

EASY UP 10 FT. TOWER

Type EZ40. Completely self supporting without need of guys. Constructed of 1¼" heavy gauge steel tubing. Legs on 16" centers to align with roof rafters. Mounts on flat or peaked roof. Accommodates 1¼" to 1¾" mast or CDR rotor. Sturdy enough to climb. Assembles in two minutes. Adaptor assembly available for mounting CDR rotor inside of tower. Shpg. Wt. 30 lbs. F.O.B. Racine. Wisc. only.
92F680. Tower **16.00**
92F681. EZ40-2 CDR Adapter **3.00**

NYLON GUY LINE

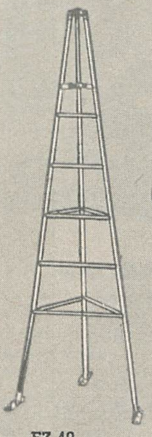
Perfect for guying any type of antenna—has minimum RF absorbtion and will not distort any radiation pattern. Tensile Strength: $\frac{3}{16}$" dia.-1100 lbs.; ⅜" dia.-4000 lbs. Wt./foot: $\frac{3}{16}$"-.01 lbs.; ⅜"-.04 lbs.

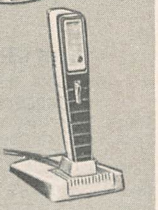
Stk. No.	Dia.	NET/ft.	600 ft. spool
36F1005	$\frac{3}{16}$"	.04	16.50
36F1006	⅜"	.15	65.62

Fig. A (Z-2)

Fig. B (Z-9A)

Fig. C





Television Interference. By Phil Rand. Describes ways to easily end TVI. 56pp. 8½x11".
53F086. Postpaid in U.S.A. **1.71**

ARRL. Radio Amateurs Handbook.
52F600. Postpaid in U.S.A. **3.50**

SHURE MICROPHONES

Model 440. Pressure operated high impedance units using the balanced armature controlled magnetic principle and especially designed to have high intelligibility for radio communications and the narrow audio frequency range (300-3000 cps.) required for single side band transmission. The microphones have high output level —52.5 db, smooth response, and a semi-directional pickup characteristic. Includes head only, less stand. Shpg. wt. 2 lbs.
61F142. NET......**14.70**

Model 440SL. Characteristics same as above, but is an integral assembly of a microphone, a grip-to-talk, slide-to-lock switch and a desk stand. The switch has a large comfortable grip bar which minimizes hand and finger fatigue. After the bar is pressed, a positive downward pressure on the bar locks the switch. The switch cannot be accidentally locked, and the unit can be picked up without actuating the switch. The microphone, switch case, and the stand are streamlined for improved acoustical performance and modern appearance. Shpg. wt. 5 lbs.
61F143. NET......**27.93**

ASTATIC CRYSTAL MIKE

Model D-104. High impedance high output crystal microphone designed specifically for amateur use. Output of —46 DB and complete shielding virtually eliminates RF pickup. Humidity-proof sealed crystal element. Response 40-7500 cps. Chrome finish. Size: 3½"x$1\frac{1}{16}$". With 5 ft. shield cable. Less stand. Wt., 2 lbs.
61F005. NET......**18.23**

Type G. Push to Talk Stand. Designed for use with D-104 and others. Chrome and gray. 8½" high, with 6' cable. Shpg. wt. 2¼ lbs.
61F016. NET......**14.66**

ELECTROVOICE CERAMIC MIKE

Model 729SR. High impedance cardioid designed greatly reduces noise pickup and feedback. High output (—55 db) and tailored speech response (60-8000 cps) makes this microphone ideal for amateur use. Includes base, 10 ft. shielded cable and built in relay control switch. Gray finish, $8\frac{7}{32}$" long. Shpg. wt. 9 oz.
61F566. NET......**15.58**

ANTENNA ACCESSORIES

CUSH CRAFT

COAXIAL LIGHTNING ARRESTER

Model LAC-1. For Standard coaxial cable, is designed to eliminate heavy static charge build up—protecting valuable radio equipment. No insertion loss and will not affect performance or S/W/R to 500 mc. ¾" O.D. Shpg. wt. 1 lb.
92F096. NET.......... **3.95**

AMECO ANTENNA RELAY

Type 51. Antenna changeover relay. For high RF switching in transmitters popular with Hams. Handles up to 1 KW. DPDT action. Has ¼" silver contacts spaced 2" apart. Steatite insulation. 115 volts AC coil. 3⅝x2⅞x1½". Shpg. wt., 2 lbs.
24F950. NET.......... **6.10**

DOW KEY

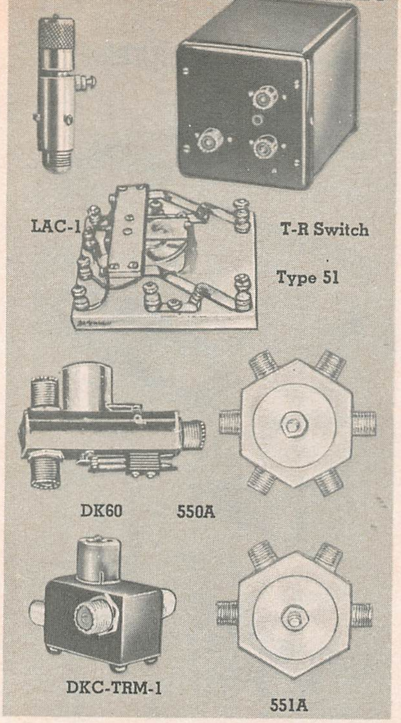
COAX RELAY

Type DK60-G2C. Contact pressure in transit position 50 grams; de-energized or received position, 35 grams. With external DPDT switch and receiver protecting connector. Breakdown voltage in excess of 1,000 volts RMS. Operating temp. approximately 38°C. Power consumption: AC models approx. 4 watts, DC models 3 watts. 4½x2¾x1¼".

Stk. No.	Description	Wt.	EACH
24FX2002	12 VDC	8 oz.	15.65
24FX2003	115 VAC	8 oz.	15.65

ELECTRONIC ANTENNA SWITCH

Type DKC-TRM-1. Fully electronic includes tube and will handle a full kilowatt. Requires 150 V at 5 ma and 6.3 V at .3 amps or 12.6 V at .225 amps. 2 stage triode amp. high gain, low noise level. Instantaneous recovery. Fully TVI proof. Freq. 1.8-60 Mc. Size: 1⅜x1⅜x2¾ inches. Shpg. wt. 2 lbs.
24FX2004. NET.......... 12.50



E. F. JOHNSON

TR SWITCH

Provides noiseless electronic ant. switching. Max. rcvr. gain, 6 db. Rated at 4 KW peak power. Instantaneous break-in on SSB, CW or AM. Tip jack provided for external monitoring device. Built-in 110VAC, 60 cps power supply. With SO-239 coax fittings. H.W.D. 4⅜"x4¼"x5⅜". Shipping weight, 5 lbs.
97F484. NET.......... **29.95**

B&W COAX SWITCHES

Model 550A. Permits easy selection of antennas, transmitters, exciters, receivers and other RF devices using 52 or 75 ohm coax. Housed in 2¾" dia. aluminum case, equipped with six SO239 type connectors for selecting any one of five lines. Single hole mounting. Will handle 1 kw of modulated power with maximum crosstalk of —45 db at 30 mc. Wt., 4 lbs.
40F996. NET.......... **8.25**

Model 551A. Inexpensive multi-position coaxial switch eliminates annoyance of screwing and unscrewing coaxial connections. DPDT unit for switching various devices using 52 or 75 ohm coaxial lines in or out of series connection. It may also be utilized to switch low impedance coupled power amplifiers in or out of the circuit at will, permitting the driver stage to be connected to a low impedance antenna circuit or similar load as desired. Shipping weight, 5 lbs.
40F998. NET.......... **7.95**

CONNECTORS, ADAPTERS, CABLE AND WIRE

AMPHENOL

Type 83-1SP. Standard JAN type PL-259. Small single-contact plug. Oper. freq.: 200MC. Peak voltages—500. Silver plated contacts. Shpg. wt., 4 oz.
39F030 NET.......... **.73**

Type 83-850. As above except solderless.
39F088. NET.......... 1.38

B & W

CNTR. INSULATOR

Type CC-50. Serves as a center insulator for doublet antenna systems. Aluminum. Shpg. wt., 1 lb.
40F928. NET.......... **5.85**

REDUCING ADAPTERS

Type 83-185. For type RG58/U cable.
39F040. NET.......... .20

Type 83-168. For type RG59/U cable.
39F041. NET.......... .20

COAXIAL CABLE

Stk. No.	RG Type	OD Jkt.	Max. RMS	Ω Imp.	Per ft.	100 ft.
36F240	8/U	.405	5000V	52	.13	11.85
36F243	58/U	.195	1900V	50	.053	4.90
36F244	59/U	.242	2300V	73	.06	5.08

DOW KEY

Type DKF-2. Female UHF type requires only one ⅝" hole for chassis mounting. Size: 1x1x2¼". Shpg. wt., 10 oz.
24F959. NET.......... **1.25**

TELCO

ANTENNA WIRE

Copper covered steel wire. 4 lbs./100'.

No.	Wire Size	Feet	NET
36F255	12	100	2.49
36F256	12	250	5.85
36F257	14	100	2.19
36F258	14	250	4.74

CDR ANTENNA ROTORS

Model AR-22. Completely automatic, light duty ham rotor. Mechanical brake can be released magnetically. Reversible motor. Weatherproof reinforced die cast housing. Reversible clamps will handle ⅞" to 2" masts. Handles antenna up to 150 lbs. Shpg. wt., 15 pounds.
92F732. NET EACH.......... 32.77

ANTENNA BOOKS

Beam Antenna Handbook. Information relative to design, construction, adjustment and evaluation of parasitic arrays. Illustrated. 128 pp. Size: 5½x8".
52F560. Postpaid in U.S.A. 2.70

Cubical Quad Antennas. By William Orr. Practical build it yourself information. Theoretical and construction information. Size: 5½x8". 96 PP. Illus.
52F556. Postpaid in U.S.A. 2.85

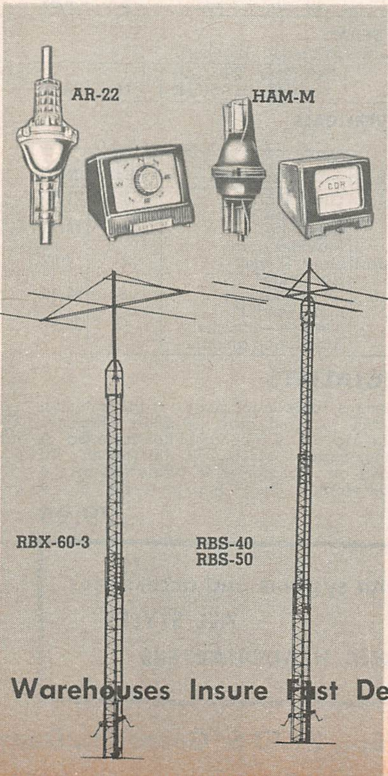
ARRL Antenna Book. Antenna design and construction, plus the theory of radiation. 312 PP. 6½x9½".
52F607. Postpaid in U.S.A. 2.00

INSULATORS

Model C1. Cycolac center insulator for doublets. Accepts ¼" or ⅜" dia. coax. 8 oz.
92F540. NET.......... 3.95

Model E1. Heavy duty Cycolac 7" end insulator. Leakage path, 12". 3½ oz.
92F541. NET.......... 1.00

Egg shaped white porcelain strain insulator. Size: 1¾x⅞". Shpg. wt., 2 oz.
37F140 EACH.......... 7c



CDR ANTENNA ROTORS

Model HAM-M. Heavy duty. Rotates 360 degrees. Input voltage: 115 VAC 60 cycles. Motor: 24V., 2¼ amp., split phase 10% duty, 360 inch-pounds torque. Control box size: 5¹³⁄₁₆" wide x 6" deep x 5¼" high. Rotator size: 8" max. dia. x 20" high with top and bottom mast supports. Wt., 26 lbs.
92F734. NET.......... 117.10

E-Z WAY TOWERS

Requires no guy wires in 70 mph winds up and 125 mph winds when cranked down. Has heavy duty winch. Safety rest removes all strain from cables. Supports a 3 el. 20M full size beam or a 4 el. tribander. Resist twist and deflection under stress. Top bushing prevents horizontal deflection of mast and vertical thrust bearing eliminates wt. from rotator. Complete with wonder ground post which solidly anchors unit into soil. Easy to install. can be set up by two men in 3 hours, requires no concrete. When ground post is not desired, hinged base plate may be used. All towers galvanized, also available painted on special order. Shpg. charges prepaid.

Model RBS-40-G. 2 sections. Ht: max. 41' min. 25'.
92F661. NET.......... 284.50

Model RBS-50-G. 2 sections 31' bottom, 21' top. Ht: max. 51', min. 35'.
92F662. NET.......... 369.50

Model RBX-60-3-G. Three sections. Ht: max. 58', min. 25'.
92F663. NET.......... 530.00

BUD

Type LF-601. Features variable capacitors to provide maximum rejection on any freq. from 60 to 90 Mc. Input and output impedances are adjustable from 52 to 72 ohms. Min. attenuation of 85 db above 54 mc. and a minimum of 93 db above 70 mc. Handles full kilowatt. Inductance enclosed in shielded compartment. For 160-10 meters. Fitted with SO-239 connectors. 12x2½x2¼". 2 lbs.

47F950. NET......17.25

B & W

Model 425. Passes 160-10 meter bands. Wave Guide principle. Provides greater attenuation in less space at lower cost. Use with transmitters operating at 1 kw input when SWR is not excessive. It reduces spurious and unwanted radiation by a minimum factor equal to 17,780 to 1—or, 85 db, throughout the TV band and in excess of 100db on channel 2. 52 ohms impedance. Fitted with SO-239 connectors. Size: 11x3x2". Shpg. wt., 1½ lbs.

47F903. NET......17.10

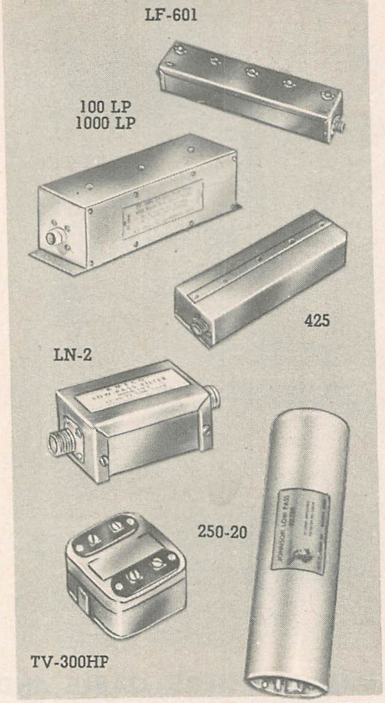
Model 426. Same as above, except 75 ohm.
47F904. NET......17.10

E. F. JOHNSON

Model 250-20. Passes 160-10 meter bands. Consists of 4 individually shielded sections. Handles more than 1000 watts RF. Provides 75 db drop in harmonics above 54 mc. Insertion loss less than .25 db. Fitted with SO-239 connectors. Not for use on 6 meters. 52 ohms impedance. 9" long and 2 5/16" diam. Shpg. wt. 3 lbs.

47F920.......14.95

LOW PASS FILTERS



DRAKE

Passes 6 meters to 160 meters. Provides very sharp cut-off. Attenuates transmitter harmonics that fall in Channel 2 and higher. Will not detune antenna feed systems having low SWR. Matches 52 ohm coax line. Fitted with SO-239 connectors.

Model TV-100-LP. Used with up to 100 watts max. input. 20 watts max. on 6 meters.

47F915. NET......5.95

Model TV-1000-LP. Used with up to 1000 watts max. input. 200 watts max. on 6 meters.

47F916. NET......16.95

AMECO

Model LN-2. Suppresses the radiation of all spurious signals above 40 mc from the transmitter. 35db and more attenuation of harmonic and spurious frequencies above 50 mc. Handles 200 watts. 52 ohms impedance. Fitted with SO-239 connectors.

97F377. NET......3.75

DRAKE HI-PASS FILTER

Model TV-300HP. Has extremely sharp cut-off at all freq. eliminates IF interference from ham bands—6 to 100 meters—even from the transmitter next door. Over 40 db attenuation, 52 Mc and lower. Iron core bifilar coils give maximum reduction of parallel current interference. imped: 300 ohms. Greatly improves picture quality of TV set. Easy to install, connects to TV set in sec. With instructions. Wt., 2 oz.

47F913. NET......3.97

VHF AMATEUR ANTENNAS FOR 6, 2, 1¼, ¾ METER BANDS

SINGLE BAND BEAMS

Stock No.	Mfgr.	Type	Freq. Range	No. Ele.	Ele. Lgth.	Boom Size	Fwd. Gain	F/B Ratio	Sh. Wt. lbs.	NET
92F533	Hy-Gain	68-B	6 M	8	9' 8"	18'	12.1db	25db	13	32.95
92F479	Hy-Gain	65-B	6 M	5	9' 8"	9'	9 db	25db	8	18.95
92F482	Hy-Gain	210	2 M	10	3' 6"	12'	13.4db	25db	6	14.95
92F481	Hy-Gain	25	2 M	5	3' 6"	5' 4"	9 db	25db	3	8.95
92F480	Hy-Gain	111	1¼ M	11	27"	12'	14.2db	25db	5	13.95
92F532	Hy-Gain	313	¾ M	13	13¾"	8'	16.1db	25db	3	12.95
92F218	Telrex	6M516	6 M	5	8' 8"	16'	12.8db	24db	17	26.50
92F216	Telrex	6M309	6 M	3	8' 8"	8'	10 db	23db	7	16.25
92F878	Telrex	2M814	2 M	8	3' 6"	14'	15.5db	23db	8	16.50
92F215	Telrex	2M5C	2 M	5	3' 6"	5'	12.4db	23db	2.5	9.75
92F214	Telrex	2M3C	2 M	3	3' 6"	3'	10 db	20db	2.5	6.95

MULTI BAND BEAMS

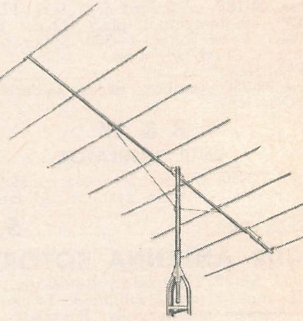
Full 4 ele. on 6 M, 18 ele. on 2 M. Pre-assembled with "Snap out" brackets.

92F879	Finney	A-62	2 & 6 M	18	......	10'	15db(2M) 8db(6M)	20.5(2M) 17.0(6M)	11	33.00

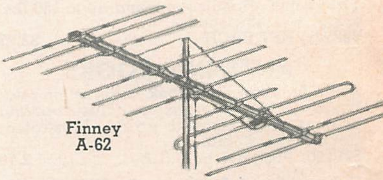
FIXED STATION VERTICALS

*Must be cut to desired freq.

Stock No.	Mfgr.	Type	Freq. Range	Mts. On	Description	Sh. Wt. lbs.	NET
92F534	HyGain	GP-2C	6 meter	¾x1⅝" Mast	Grnd. Plane Heavy duty	7	21.90
92F887	Telrex	CGP-6M	6 meter		Conical—Provides gain!	4	13.75
92F535	HyGain	GP-3C	100-470MC	¾x1⅝" Mast	Grnd. Plane Hvy. duty*	4	14.97
92F469	A/S	M7-A	130-470MC		Grnd. Plane Light weight*	3	5.40
92F880	HyGain	DS-1	50-500MC	¾" Pipe	Discone—extremely Broadband antenna	9	29.97



Hy-Gain 68B

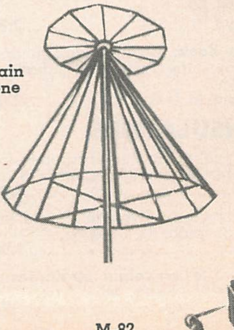


Finney A-62

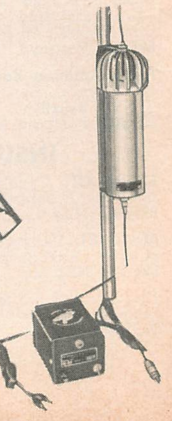
ANTENNA SPECIALISTS

M-82 Black Box. Fantastic power booster that restores 100% legal power at the antenna, increases effective transmitted gain by 10db and received gain by 20db. Reduces inherent mobile interference. Control box at the rig and 4-tube amplifier mounted at the antenna. Amplifier in weatherproof aluminum casing. Meets FCC limitations. No internal connections to transceiver. When turned off, transceiver is connected to the antenna. Dimensions: control box 3"x4"x5", black wrinkle finish. Amplifier—3½" dia. x 14" deep. Shipping weight 15 lbs.

92F522. NET......**79.95**



Hy-Gain Discone



M-82 Black Box

NEWARK carries complete antenna systems and accessories

ALL FREQUENCIES ALL STYLES

NEWARK — YOUR ANTENNA HEADQUARTERS

HIGH FREQUENCY AMATEUR ANTENNAS

TELREX MULTIBAND BEAM

Type TC-99B. Uses separate reflector for each band to provide optimum f/b ratio without degrading gain or impedance bandwidth. Single transmission line. Rated for 100 mph wind. High voltage, high Q, traps permanently sealed with six coats of epoxy resin.

Stk. No.	Type	Freq. Range	No. Ele.	Ele. Lgth.	Boom Size	Fwd. Gain	F/B Ratio	Shpg. Wt.	NET
92F219	TC-99B	10/15/20	5	29′	16′	8db	2 db	58 lbs.	174.50

HY-GAIN MULTI BAND BEAMS

HY-GAIN THUNDERBIRD series and new 40/20 beam. 100% rustproof aluminum construction pretuned Beta-Match; and true full-size performance. All hardware is iridite-treated, and heavy-duty plastic bracket assemblies eliminate U-bolts. Formed steel fixture secures boom to mast. Solid state "Slim-Traps" are unbelievably small (1¼" dia.!) and lightweight for minimal wind res. Their resonant circuit is wound on and completely imbedded in lo-loss polypropylene plastic. Stronger than the elements in which they are fitted, traps are unconditionally guaranteed to resist all weather conditions and withstand 1 KW. AM or 2 KW. P.E.P. SWR at resonance is less than 1.05:1 on 10, 1.15:1 on 15, and 1.1:1 on 20. Grounded for lightning protection and shunt-fed with 52-ohm coax.

Stock No.	Mfg.	Type	Freq. Range	No. Ele.	Ele. Lgth.	Boom Size	Fwd. Gain	F/B Ratio	Shpg. Wt.	NET
92F545	Hy-Gain	DB-24	20, 40 M	4	44′	20′	8½/4½	28/20	45 lbs.	169.50
92F536	Hy-Gain	TH-4	10, 15 & 20	4	32′	16′	8db	25db	42 lbs.	117.50
92F537	Hy-Gain	TH-3	10, 15 & 20	3	26′	16′	7-8db	25db	36 lbs.	99.75

HY-GAIN SINGLE BAND BEAMS

HY-GAIN guarantees their big beams for a full year. With revolutionary, pre-tuned Beta-Match for uniform SWR of less than 1.5:1—yet easily retunable to allow for variables that may be encountered in installation. Easily handles full kilowatt AM, 2KW, P.E.P. No traps or coils—full-size 3-element beams! Heavy-duty Cycolac and steel-strap bracket assemblies clamp elements securely to boom. All boom, element ends plastic-capped. All hardware iridite treated to meet MIL specs. Matches 52 ohm coax.

Stock No.	Mfg.	Type	Freq. Range	No. Ele.	Ele. Lgth.	Boom Size	Fwd. Gain	F/B Ratio	Shpg. Wt.	NET
92F472	Hy-Gain	103-B	10 M	3	17′	8′	8db	25db	12 lbs.	32.95
92F473	Hy-Gain	153-B	15 M	3	23′	12′	8db	25db	19 lbs.	38.50

DIPOLE AND DOUBLET ANTENNAS

NEW HY-GAIN MULTI BAND DIPOLES. 80/40 meter model is full size for max. legal power. Others use small, solid, molded traps. All are high strength. Include center end insulators; all hardware. 52 ohms. Less feedline.

Stock No.	Mfg.	Type	Freq. Range Mtrs.	Style	Length (feet)	Max. Pwr. Wts.	Shpg. Wt. (lbs.)	NET
92F546	Hy-Gain	2-BDP	80/40	Fan Dipole	124	1KW+	4	19.95
92F547	Hy-Gain	3-BDT	10/15/20	Trap Dipole	22	300	4	17.50
92F548	Hy-Gain	4-BDT	10/15/20/40	Trap Dipole	40	300	4	24.50
92F549	Hy-Gain	5-BDT	10 thru 80	Trap Dipole	80	300	4	34.95

MARK HELIWHIP DIPOLES have heavy fiberglass arms with helical wound loading sections. Mounts on 1" dia. mast. Fine for attic use. With SO-239. 52 ohms.

92F645	Mark	HWD-15	15	Helical Dipole	12	1KW	8	24.00
92F646	Mark	HWD-20	20	Helical Dipole	12	1KW	8	27.00
92F647	Mark	HWD-40	40	Helical Dipole	16	1KW	10	29.95

MOSLEY MULTIBAND BEAMS

MOSLEY "Trap Master" antennas are 100% rust and corrosion proof. Coil forms are molded directly on element sections. stay on frequency regardless of weather conditions. Easily handle full KW AM except TA-33jr. 300 watts A.M. Element center sections are double thickness to reduce sag. Husky U bolts, lock washes and machine nuts are stainless steel, other hardware is non-ferrous metal or high-impact polystyrene. Heavy duty universal mounting plate fits masts up to 1½" OD. Easy to assemble, all holes drilled. No field measuring or tuning required. TA-36 uses 4 ele. on 10, 3 on 15 and 20.

Stock No.	Mfg.	Type	Freq. Range	No. Ele.	Ele. Lgth.	Boom Size	Fwd. Gain	F/B Ratio	Shpg. Wt.	NET
92F205	Mosley	TA-33	10, 15 & 20	3	28′	14′	8 db	25db	53 lbs.	99.75
92F237	Mosley	TA-33 jr.	10, 15 & 20	3	26′ 8″	12′	7db	25db	28 lbs.	69.50

REYCO TRAPS

For construction of your own 5 band 52 ohm dipole.

92F026	Reyco	KW-40	10 thru 80	Traps for Dipole	124	1KW	2	12.50

HY-GAIN FIXED STATION VERTICALS

Stock No.	Mfr.	Type	Freq. Range	Style	Mts. On	Height	Wt. Lbs.	NET
92F449	Hy-Gain	GP-1C	10 Mtr.	Grnd. Plane	¾ to 1⅝" mast	8′	10	32.70

"High Tower" Self supporting 30′ galvanized steel tower with 20′ alum. top whip section. Decoupling stubs allow under 2:1 SWR on all bands.

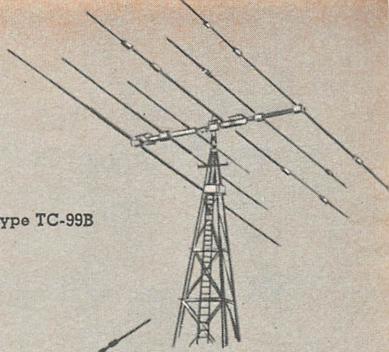
92F493	Hy-Gain	18-HT	10, 15, 20, 40, 80M	Multi band stub	Ground	50′	105	139.50

Roof mounting multiband verticals using solid state "Slim Traps." SWR under 2:1, 52 ohms imped. Guy wires serve as radials.

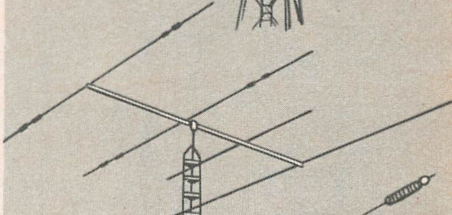
92F485	Hy-Gain	14AVS	10/15/20/40M	Grnd. plane	14RMK below	21′	10	29.95
92F483	Hy-Gain	12AVS	10/15/20M	Grnd. plane	12RMK below	14′	9	21.95

ACCESSORIES FOR VERTICALS

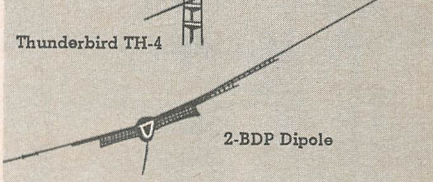
92F486	Hy-Gain	14RMK	Roof mtg. kit for 14AVS. With mast, radials and hdw.	9	11.95
92F539	Hy-Gain	LC-80	Loading coil for 80M operation of 14AVS. Req. separate feed line, or relay switching, of single coax feed.	½	7.95
92F484	Hy-Gain	12RMK	Roof mtg. kit for 12AVS. With mast, radials and hdw.	7	9.50
92F436	Hy-Gain	6MK	Decoupling stub. Adds 6 meter operation to 12AVS and 14AVS.	2	4.95



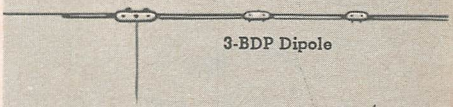
Type TC-99B



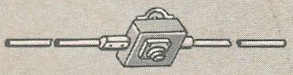
Thunderbird TH-4



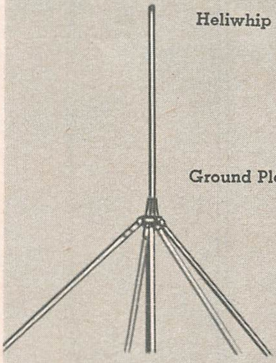
2-BDP Dipole



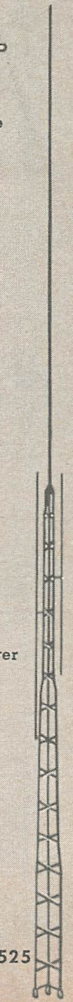
3-BDP Dipole



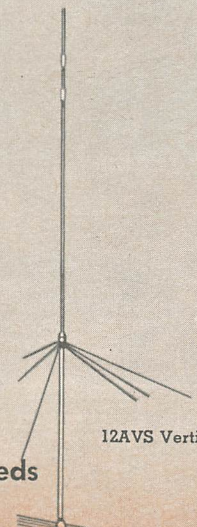
Heliwhip Dipole



Ground Plane

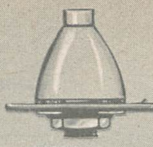


Hy-Tower

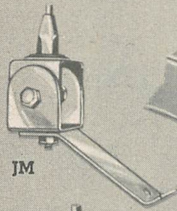


12AVS Vertical

M-13



HWM-1



JM

BPR

ASP-143

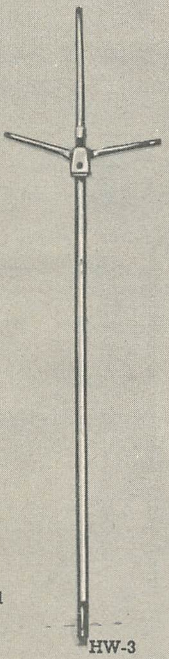
ASP-122

M-25

M5S-36

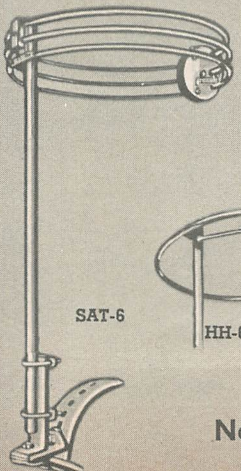
M-3B

ASP-201

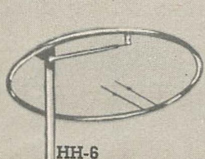


HW-3

MA-3



SAT-6



HH-6

MOBILE ANTENNAS FOR THE AMATEUR

All mounts, springs, and whips below have 3/8-24 threads

BODY MOUNTS

Stk. No.	Mfgr.	Type	Description	NET
92F450	A/S	M-3	Amateur Swivel base, alum. ball. Solder lug cable conn.	2.97
92F451	A/S	M-13	Deluxe amateur swivel base, chrome ball. Coax conn.	6.00
92F452	A/S	ASP-3	Professional swivel base, black, cad. plated, machined alum. ball with wrench.	7.03
92F453	A/S	ASP-160	Coaxial adapter for ASP-3.	1.47
92F628	Mark	HWM-1	Fiberglass. non-swivel base. One hole mtg. Coax conn.	7.50
92F886	Hy-Gain	JM	Jiffy mtg. for trunk, hood, etc., cad. plated, solder lugs.	3.15

BUMPER MOUNTS

Stk. No.	Mfgr.	Type	Description	NET
92F888	Hy-Gain	BPR	Heavy duty. Uses adjustable stainless steel strap.	6.57
92F458	A/S	ASP-143	Double chain mount, reduces sway. Cad. plated steel.	7.79
92F463	A/S	M-2A	Similar to above except single chain mount.	5.14

SPRINGS

Stk. No.	Mfgr.	Type	Description	NET
92F461	A/S	M-3A	Standard amateur cad. plated steel.	2.00
92F462	A/S	M-9A	For extra heavy and center loaded amateur antennas	5.67
92F460	A/S	ASP-122	Stainless steel spring. Cad. plated end bells.	8.23
92F528	A/S	M-25	Heavy duty min. spring for short whips. Cad. plated.	1.98

A/S WHIP ANTENNAS

SOLID STAINLESS WHIPS AND EXTENSIONS

Stk. No.	Mfgr.	Type	Description	NET
92F526	A/S	ASP-121	96" Whip with stainless set screw type threaded adapter.	7.75
92F454	A/S	M-3B	96" Ten meter whip, plated threaded adapter.	4.26
92F455	A/S	N-3B	60" For top half of center loaded antenna or other uses.	4.26
92F466	A/S	M-3B	102" Standard CB whip; plated threaded adapter.	4.26
92F456	A/S	M5S-36	36" 3/8" OD mast extension for bottom half of center loaded antenna; both ends threaded.	5.14

MARK MOLDED FIBERGLAS MOBILE HELIWHIP ANTENNAS

Molded fiberglas continuously loaded whip antennas. Replace conventional stainless steel quarter wave-length whips as well as base-loaded and center-loaded radiators normally employed. Far superior to whip and loading coil combinations. Helical conductor which produces a 50 ohm match. 3 band model needs no switching.

MARK MOBILE SINGLE BAND AND TRIBAND ANTENNAS

Stk. No.	Mfg.	Type	Freq. Range (meters)	Band Width (2:1SWR)	Res. Freq.	Lgth.	NET
92F990	Mark	CVS2144	2	4 mc+	146 mc	4'	7.50
92F991	Mark	HW-6	6	4 mc	52 mc	3'	9.95
92F992	Mark	HW-10	10	1 mc	29 mc	4'	9.95
92F993	Mark	HW-15	15	.5 mc	21.1 mc	4'	9.95
92F994	Mark	HW-20	20	.25mc	14.2 mc	6'	10.95
92F995	Mark	HW-40	40	.1 mc	7.25mc	6'	10.95
92F996	Mark	HW-80	80	60 kc	3.8 mc	6'	10.95
92F997	Mark	HW-3	10/15/20	....	....	6'	10.95

Above antennas available cut to specified freq. at no extra charge. 3 week delivery. Heliwhips available cut to non-amateur freq., 3 mc to 15 mc........18.00

MOSLEY TRIBAND WHIP

Type MA-3. 10/15/20 meter whip requires no switching. Low SWR. Slim alum. sealed traps. anti sway design. Fits std. mounts works with std. 40/80 mtr. base loading coils. Stainless steel. 6 lbs.

92F238. NET........19.95

A/S 144 MEGACYCLE WHIPS

Stk. No	Mfgr.	Type	Description	EACH
92F468	A/S	ASP-201	144 mc. Roof top 18x3/4" long; mts. in 3/8" hole. Solderless conn.	2.85
92F457	A/S	ASP-157	144mc. Gutter clamp 18x3/4" long. For temp. mt. on rain gutter. With 12' RG-58 & PL-259.	6.76

WHIP ACCESSORIES

Stk. No.	Mfgr.	Type	Description	EACH
97F470	Johnson	250-26	Base loading coil only, for 10/11/15/20/40/80 meters. Use 96" whip. Up to 75 watts.	16.95
92F459	A/S	M4	Whip Clip. Fastens to car rain gutter w/o holes.	.73
92F529	A/S	M-54	Kwick Kupler. Allows whips to be removed from base with one quick twist. Chromed brass.	2.95
92F527	A/S	MA54	Top piece of M-54 use for interchanging several whips.	2.26

HORIZONTALLY POLARIZED 6 & 2 METER MOBILE "HALO" ANTENNAS

Hi-Par "Saturn 6" 6 Meter Halo

Triple ring with unique trimmer between capacitor plates which permits resonating anywhere between 50 and 53 mc. Fed with 52 ohm cable thru simple "Q" section. Mounts without holes in car. Model S-1. includes antenna, brackets, bumper mount, mast.

92F290. Net........16.61

92F289. Model S3 Mast Bracket only........98

92F288. Model S4 Bumper Hitch only........2.94

Hy-Gain

Model HH-6. 6 Meter Halo, with 52 ohm Gamma-match and easily adjusted stub tuning system. No external capacitors.

Model HH-2. 2 Meter Halo. Similar to HH-6, but does not use stub. 1/2" dia. tubing. Shipping weight 5 lbs.

92F498. NET........5.95

Made of 1" dia. heavy alum. tubing. Shipping weight 5 lbs.

92F497. NET........12.95

Model HM. 5' telescoping alum. mast for use with HH-6 or HH-2 singly or stacked. Threaded stud allows use with any Std. mobile mount. Shpg. wt. 3 lbs.

92F499. NET........4.95

HALLICRAFTERS

4 BAND AMATEUR RECEIVER

SX-100

Model SX-100. 4 band communications receiver incorporating temperature compensation o the HFO circuits and crystal control of second conversion oscillator Bands: 1, standard broadcast 538-1580kc; 2, 1720kc-4.9mc; 3, 4.6mc-13mc; 4, 12-34mc. Band spread calibrated for 80, 40, 20, 15, 11, and 10 meters. Gear driven dials Logging dial for both tuning controls. 50kc selective i-f system plus tee-notch filter for heterodyne elimination. Selectivity. 5 steps, 500 cycles to 5 kc. External conections: 3.2/500 ohm speaker termnials, terminals for single wire or double t antenna, phone jack, socket for DC operation and remote control, "S" meter electrical adjustment and mounting hole for co-avial cable connector. Controls: pitch, reception, standby, response (upper and lower) side band selector, antenna trimmer, notch frequency, notch depth, calibrator on/off, R.F. gain, band selector, audio gain, tuning, AVC on/off, noise limiter on/off, bandspread selectivity. ubes: 1 6CB6 RF amp; 1 6AU6 1st conv.; 1 6C4 HFO; 1 6BA6 2nd conv.; 1 12AT7 dual crystal 2nd conv.; 2 6BE6 50kc i-f amps; 1 6AL5 AVC noise limiter det; 1 6SC7 1st aud and BFO; 1 6K6 output; 1 5Y3 rect; 1 0A2 voltage reg; 1 6C4 50kc i-f amp; 1 6AU6 100kc. crystal marked. Gray and satin black cabinet. 105-125V., 50/60 cps AC power supply. Size: 18½"x9"x11" deep. Shipping wt., less speaker, 42 lbs.

98F034. NET........ **325.00**

SPECIAL PURPOSE RECEIVERS

CRX

Equipment listed on this page can be used by commercial or emergency services to monitor their own frequencies, or the interested individual who just wants to listen in. Services which are covered in each of the freq. ranges are as follows:

185-500kc	Covers Aircraft beacons, radio navigation, weather, and government services.
1.6-3.0mc	Covers Marine communication, Coast Guard, Amateur, time signals, Loran navigation.
30-50 Mc.	Covers Medium range police communications, Radio paging services, Mobile telephone, and industrial communications, and other services.
108-135Mc.	Covers Aircraft in flight, air control towers, and unicom.
150-174Mc.	Covers Police, Fire, and other emergency services, mobile telephone, delivery and highway trucks, taxicabs, and more.

HIGH QUALITY VHF RECEIVERS

These new VHF receivers open a whole new listening area. Now you can be practically on the spot in emergencies. Features: Manual tuning or 2 crystal channels (crystals not supplied). Electronic squelch with 2 micro-volt sens., high gain RF stage, coaxial antenna connection and high selectivity IF amp. with 4 tuned circuits. Controls: Tuning on/off-volume, squelch internal/external speaker switch, external speaker terminal, antenna connecter, grnd. lug and switch to select general coverage or either of two possible crystal controlled frequencies, 117VAC, 50/60 cps. Gray steel cabinet. Size: 13½x7⅝x8¾". Shpg. wt. 15 lbs.

Model CRX-1. Split channel, narrow band FM. Triple conversion. Freq. range: 30-50MC. 9 tubes, 2 diodes.

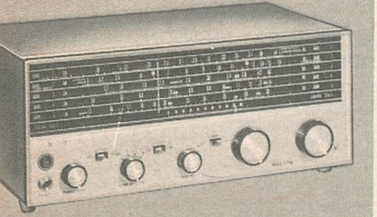
98F086. NET........ **99.95**

Model CRX-2. Split channel, narrow band FM. Triple conversion. Freq. range: 151-174MC. 10 tubes, 2 diodes.

98F087. NET........ **109.95**

Model CRX-3. Dual conversion, AM receiver. Freq. range: 108-135MC. 7 tubes, 3 diodes.

98F088. NET........ **94.95**


S118

HALLICRAFTERS GENERAL COVERAGE RECEIVER

Model S-118. New general coverage receiver with extended low freq. tuning. Covers 185 KC to 31 MC in 5 bands. Features electrical bandspread with slide rule dials, noise limiter, BFO, phono input/audio output jack, octal plug for external power supply (filaments wired for 12V), loopstick antenna and provision for external antenna (50-75 ohms impedance). Controls: Band selector, main tuning, bandspread, standby/receive. ANL on-off, sensitivity, and off/on volume. 5 tubes, 2 diodes. 13¾x6⅛x8½" gray steel cabinet. Shpg. wt. 19 lbs.

98F089. NET........ **99.95**

KINEMATIX
SKYLARK "500" AUTO RADIO

88 91 95 99 103 106 108
FM
KINEMATIX
500

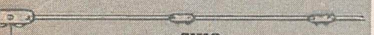
Model 500. The Kinematix Skylark "500" is a powerful self-contained FM auto radio. Can be used with existing AM antenna and speaker or with any other speaker. Mounts quickly and neatly under dashboard. Eight tubes—4 IF stages, 2 limiters and separate mixer and oscillator. Has variable capacitance diode, 3 gang variable condenser, AGC, AFC, transmitter overload control, Foster-Seeley discriminator, fused input, completely hand wired, multiplex jack. Specs: 2.5 microvolt sensitivity, 40db image rejection, —60db If rejection, 200 kc band width. 80-20,000 cycle frequency and 12 volt negative ground power supply. 8x2x7¾". Chrome front plate with silver blue case. 9 lb. shpg. wt.

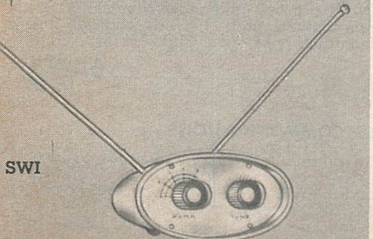
97F040. NET........ **79.95**

Model 100. Kinematix FM converter. Same size, appearance and specifications as above, but used only in conjunction with AM car radio. Connects into antenna of auto radio input, output freq. 900kc. shpg. wt., 5 lb.

97F041. NET........ **64.95**

SHORT WAVE ANTENNAS


SWO


SWI

HY-GAIN SWL DOUBLET

Model SWO. Best ant. available for SWL! Covers 11, 13, 16, 19, 24, 31, & 40 meters. 40' long. Complete with 100' of lead in.

92F542. NET........ **14.75**

ALL-PURPOSE DOUBLET AERIAL KIT

No. 635. For reception where space is limited. Two 30' coils copper wire, 50' transmission wire, 10' ground wire, 3-3" glass insulators, ground clamp, porcelain lead-in tube, 2 porcelain nail-knobs included. 10 lbs.

92F360. NET........ **3.91**

HY-GAIN INDOOR SWL ANTENNA

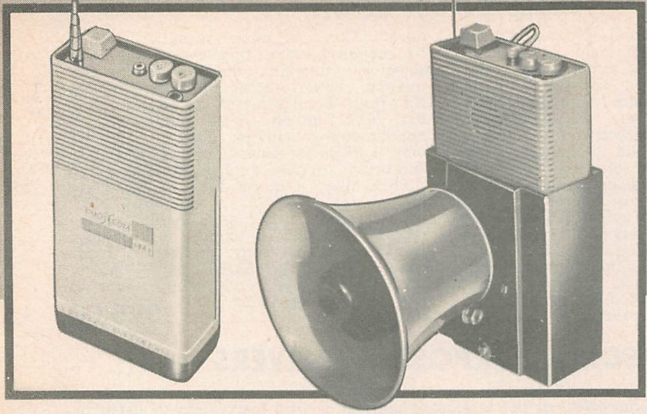
Model SWI. Use when outdoor mounting impossible. 5-30mc. Tune & match controls. Factory wired. Complete with 6' lead in.

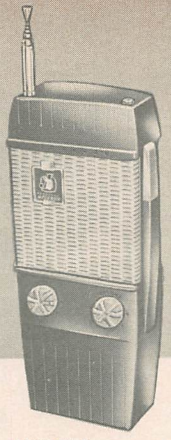
92F543. NET........ **14.75**

AERIAL KIT

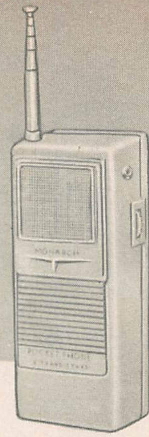
Model SP-44½. Made up of 50' copper aerial wire, 25' lead in wire, 1 window lead in strip, 1 ground clamp, 2 porcelain insulators, 2 nail-it knobs. Install it yourself in just a few minutes. Shpg. wt., 3 lbs.

27F591. NET........ **97c**





242-101-2



740K

TC-90

CITIZENS BAND COMMUNICATION

WHAT IT IS

The Federal Communications Commission has allotted 22 radio channels between 26.965 and 27.225 megacycles for use by anyone requiring radio communications in business or personal activities other than as a hobby. The Class D License usually required* is obtainable by any citizen over 18 from the FCC at no cost and without examination. Merely fill out the form included with equipment or secured from the FCC, and return it. Newark will help you with these details when you select your equipment.

***NO LICENSE required to operate equipment using less than 100 milliwatts and satisfying Part 15 of the FCC rules.**

WHAT IT DOES

Citizen's Band units can be used anywhere that they may be required, aircraft, boats, homes, businesses, cars, trucks, or hand-held in the field. **Under ideal conditions,** 5 watt station installations can obtain ranges up to 30 miles; 5 watt mobile installations, up to 15 miles; 100 M.W. Walkie talkies, up to one mile; 1W. Walkie Talkies, up to 5 miles. In all cases, it is assumed that excellent equipment and antenna installations are used. The above ranges will be substantially increased, when operated over water. Some units incidentally, have built-in squelch. The purpose of this circuit is to keep the unit silent—eliminating background noise—when no signal is being received.

GENERAL CHARACTERISTICS OF WALKIE-TALKIES

These 2-way walkie-talkies can be used for communications between themselves or other higher powered mobile or base stations. All are hand held types, completely transistorized, battery operated, have built-in collapsible antenna, built-in speaker-microphones, and do not require any license except where indicated.

OSBORN DUO-COM CB TRANSCEIVERS

Model 100S. Precision engineered, portable transceiver. Features an adjustable squelch control to suppress electrical interference and background noise, convenient, positive action push to talk switch, on/off-volume control, external antenna jack for fixed or mobile use and external speaker/mike jack. 11 transistors and 4 diodes. Receiver: Double conversion superhet, dual crystal controlled, ceramic resonator IF amp and Class B 250 mw push-pull audio amp. Transmitter: crystal controlled oscillator followed by RF amplifier. Transmitter power input: 100 mw. Powered by 8 miniature penlite cells (not supplied). Includes Two-Tone, high impact plastic case; plug-in crystals for channel 10 operation; leak proof battery compartment and telescoping antenna. Size: 7¾x4x1⅝". Shpg. wt.: 2 lbs.

97F014. NET **119.50**

Model 100. Similar to model 100S but does not include the adjustable squelch control. 10 transistor circuit.

97F015. NET 99.50

BATTERIES FOR 100 AND 100S.

49F292. NE min. penlight Cell. (8 required). Each .09

Model 120. Has all of the proven 100S features, plus a full one watt input for extremely long range communications. Can be powered by a rechargeable nickel cadmium battery. Requires a Class D Citizens Band license to operate Shpg. wt. 4 lbs.

97F011. (Same size as 100S). **Net** **149.50**

Model 880. Rechargeable nickel cadmium battery for above. Up to 18 hours between charges. More than 500 recharges possible.

97F012. NET 12.50

Model 900. Battery charger designed to recharge one or two 880 batteries simultaneously in 8 hours. Requires 115VAC.

97F013. NET 19.75

ACCESSORIES FOR DUO-COM TRANSCEIVERS

97F016. Model 750. Leather carrying case. **NET** 12.00

97F018. Model 770. Lapel speaker mike. **NET** 13.50

• *NEW* DUO-COM SPEAKER

Speaker/mounting bracket attachment for use with OSBORNE CB units 100 and 120. Excellent in high noise areas. Weather proof. 5" horn provides wide area dispersion of audio signal. Plugs directly into models 100S, 100 and 120. Red horn with black 4¾x4x2" mounting bracket. Wt. 2¾ lbs.

97F020. NET **24.75**

MONARCH CB TRANSCEIVER

Model TC-900. A pocket size unit which provides instant short range communication. Complies with Part 15 of FCC rules. 9 transistor circuit includes diode and temperature compensating varistor. High impact plastic case. Powered by 7 penlight cells. Complete with leather case, shoulder strap, earphone, earphone case, telescoping antenna and batteries. Size: 6⅞x2½x1⅝". Shpg. wt. 2½ lbs.

97F545. NET **46.67**

• *NEW* 1 WATT PERSONAL JOHNSON MESSENGER TRANSCEIVER

Model 242-102-2. Features superhet receiver, RF amp. gives twice the sensitivity, 40% greater range. Fully effective noise elimination with the use of 11 transistors and 4 diodes. AVC combined with push-pull audio circuit prevents close range distortion. Squelch control, razor sharp reception. Plugs into 115VAC to recharge pen-light batteries. AMERICAN made components add to the reliability on hundreds of jobs. Meets all FCC requirements, 23 channel coverage. High plastic impact case, telescoping antenna, push to talk sw.

97F536. NET **129.50**

Model 242-101. Same as model 242-102, but 100 Mw transceiver.

97F537. NET 109.50

PERSONAL MESSENGER ACCESSORIES

49F292. Penlight batteries for above. (8 required).

Net Each .09

Model 250-804. Rechargeable nickel cadmium battery mounted in sealed plug-in compartment for recharging at 115V AC, 50-60 cps. To be used in place of penlight cells.

97F538. NET 19.55

Model 250-803. Earphone w/cord-plug.

97F539. NET 4.50

Model 251-806. Transceiver carrying case.

97F540. NET 8.50

Model 250-807. Adapter for powering from cigarette lighter on 12 volt cars.

97F541. NET 4.50

EICO CB TRANSCEIVER KIT

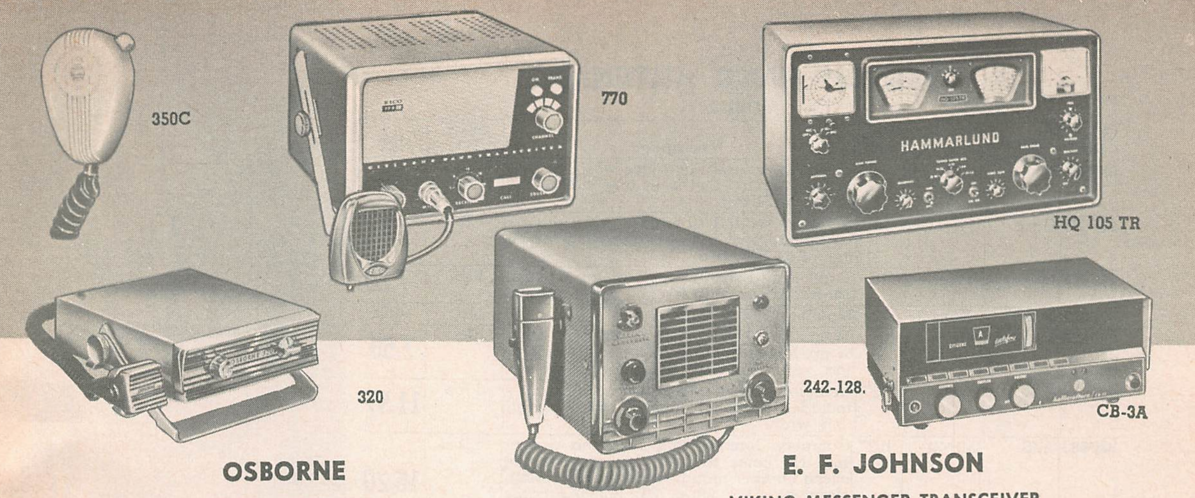
Model 740K. The only hand held CB transceiver available in kit form. Features 41" telescoping antenna; phone jack for high impedance earphone; push-to-talk switch and on/off-volume switch; 9 transistors and one diode. Receiver: Crystal controlled superheterodyne circuit; sensitivity: 1.5 uv. Transmitter power input: 100mw. Complete with transmit and receive crystals. Rechargeable nickel-cadmium battery and 115V AC charger line and attractively styled aluminum case. Size: 7⅛x2⅝x1⅝". Shipping weight, 2 lbs.

97F596. NET **54.95**

97F597. Model 740. Factory wired 79.95

BUSINESS COMMUNICATIONS

Special frequencies are available to commercial organizations, providing relatively interference free communications, greater ranges and higher dependability thru the use of more power, higher antennas, and FM. Write department JS-32, at Newark, Chicago, advising us of your needs and we will be happy to quote on your complete requirements.



OSBORNE

CB TRANSCEIVER

Model 320. Highly reliable, compact 4 channel, fully transistorized, two-way communications system with modern styling and rugged construction that is protected against dust and humidity. 17 transistors and 9 diodes.
RECEIVER has sensitivity of better than 1 microvolt for 10 db S+N/N, typical 0.6 microvolts and selectivity of 6 db band width 8KC ± 2KC ADJ CH better than 70 db attenuation. Power drain is 0.34 amps. Automatic Gain Control. Noise immune squelch circuit.
TRANSMITTER: Power input to final amplifier. 5 watts. Audio frequency response, 3 db, 300 to 3,000 cycles. Power output, minimum 2.75 watts. maximum 4 watts. Spurious radiation, minimum of 70db down. Power input 115 volts AC. Diecast beige. Complete with hand microphone and stand. Dimensions: 1⅞"x 6"x7". Shipping weight: 6 lbs. Complies with parts 15 and 19 of FCC requirements.
97F000. NET........ **249.50**

97F001. Model 970. 12 VDC Adapter Cord for above. **NET**........**19.75**

HAMMARLUND

CITIZEN-AMATEUR BAND TRANSCEIVER

Model HQ-105 TR. Citizens band transceiver with built in provision for eventual ham band operation. Consists of communications receiver tunable from 540 kc to 30 mc combined with a five watt crystal controlled transmitter which can be easily retuned from the citizens band to the 10 meter band. Operates under Class D Citizens band license and can be used on the 10 meter band with a general license. Features: Calibrated electrical bandspread, push to talk or switch to talk operation, S meter and tuning indication, separate Q multiplier and BFO, 10 tube superheterodyne circuit, built in automatic noise limiter, and automatic volume control. Sensitivity: 1.75 µv with 10:1 S/N ratio. Variable selectivity, from 100 cps to 3 kc, provided by "Q" multiplier, which may be turned off if not needed. Antenna compensator permits adjustment for various type antennas, or balanced transmission line. Size: 16¼x9⁷⁄₁₆x9⅛". 35 lbs.
97F419. NET........ **219.50**

Model HQ-105TRC. Same as above, but with clock.
97F412. NET........229.45

Model HQ-105TRS. Same as HQ-105TR, but with built-in speaker.
97F413. NET........224.50

97F416. S-100. Matching Speaker in cabinet........14.95

CB CRYSTALS

Meets FCC specs. Tolerance ±.005%. Military type HC/6U case, .758" H x .720 W x .317" D. Pin dia. .050", spacing .486". All CB crystal orders must include MFGR. and model No. of eqpt. in which they are to be used. If not for commercially made eqpt., then include schematic of unit with order. Also specify whether crystal is for receiving or transmitting, and stock number. Shpg. wt. 4 ounces each. Allow 2-3 weeks for delivery.

Stk. No.	Chan.	Freq. (mc)	Stk. No.	Chan.	Freq. (mc)	NET
27F300	1	26.965	27F311	12	27.105	2.95
27F301	2	26.975	27F312	13	27.115	
27F302	3	26.985	27F313	14	27.125	
27F303	4	27.005	27F314	15	27.135	
27F304	5	27.015	27F315	16	27.155	
27F305	6	27.025	27F316	17	27.165	
27F306	7	27.035	27F317	18	27.175	
27F307	8	27.055	27F318	19	27.185	
27F308	9	27.065	27F319	20	27.205	
27F309	10	27.075	27F320	21	27.215	
27F310	11	27.085	27F321	22	27.225	

JONES

CB POWER & SWR METER

Model 290. Measures actual RF power output in watts as well as SWR directly on two calibrated scales. For transmitters having up to 5 watt input.
97F298. NET........ **26.50**

E. F. JOHNSON

VIKING MESSENGER TRANSCEIVER

Model 242-128. Ideally suited for daily business use as well as pleasure. A complete 10 tube (including rectifier), crystal-controlled transmitter and receiver enclosed in a steel cabinet. Its compact size and light weight make it easy to install anywhere, even under the dashboard of your car. By moving selector switch on front panel to desired position you may select up to 5 of the 23 available channels. Built-in automatic noise limiter. Automatic volume control effectively prevents distortion at close ranges. Microphone equipped with a push to talk switch. Controls include an automatic transmit indicator and an automatic squelch control. Has an effective range of 6-15 miles in a car and longer over water. 115V AC and 12V DC. Complete with microphone and cord, crystals for 1 channel, and necessary power cords. Size: 5⅝"H.x7"W.x11¾"D. 14 lbs.
97F515. NET........ **144.95**

EICO

CB TRANSCEIVER KIT

Model 770K. 5 watt. 4 channel crystal controlled transmitter and sensitive superheterodyne receiver with RF stage and noise limiter. Receiver is crystal controlled on one channel and features continuous tuning over all 23 CB channels. Adjustable squelch control in addition to automatic noise limiter. Ceramic element mike utilizes push to talk button and has plastic case, cord and connecter. Receiver: sensitivity; 1 µv for 10 db S/N ratio, 2 watt audio output, and 1750 kc IF strip. Variable "pi" network matches to any type of antenna; dummy load provided for off the air tuning. On-off pilot light and transmit indicate light. Controls: on/off-volume, receiver tuning, squelch and channel selector. 8 tubes and 1 germanium diode. Transmitter oscillator circuit and RF final. Mounted, tuned and sealed at the factory to comply with FCC rules. Includes: built-in power supply, line cord, one transmitting crystal and mounting bracket. Brown enamel steel case. 117V AC. Size 6x8½x9". Sh. wt. 15 lbs.

97F590. NET........ **79.95**

97F591. 770. Factory wired........**109.95**

Model 772K. Kit as above for 117V AC and 12V DC.
97F592. NET........**89.95**

97F593. Model 772. Factory wired........**119.95**

HALLICRAFTERS

CB-3A LITTLEFONE® TRANSMITTER/RECEIVER

Model CB-3A. Versatile and reliable citizens band transmitter and receiver. Utilizes CR23/U standardized crystals (3rd overtone, series resonant) with provisions for 8 crystal controlled channels. Output circuit matches 50 ohm antenna system. Output amplifier adjustable for maximum legal input. 100% modulation on positive peaks. 2nd Harmonic trap with low pass filter for TV suppression. Receiver sensitivity is less than 1.0 uv for 10 db signal-to-noise ratio. Electronic squelch operates on less than 6 db signal strength change. 6 kc selectivity. Image rejection 40 db minimum. Audio output over 2 watts. Automatic noise limiter, series and shunt diodes. Power supply: 115 VAC or 12 VDC battery. Complete with one set of crystals, hand microphone and mounting kit. Built-in external speaker socket. Gray and black with chrome trim steel cabinet. Dimensions: 5x12x8". Weight: 12½ lbs.
98F085. NET........ **159.95**

HA-9 "S" meter kit with illuminated dial for above CB-3A.
98F092. NET........**8.95**

TURNER

MOBILE MICROPHONE

Model 350C. Hand held ceramic element microphone with push to talk switch. Wired for relay operation. Complete with hanger button; std. dash bracket and 5' extended, coiled cord. Ideal for CB new and replacement use.
61F759. NET........ **9.88**

CITIZENS BAND ANTENNAS

MOBILE

Stock No.	Mfg.	Type	Whip Lgth.	Description	Shpg. Wt.	NET
92F624	Mark	HW-11-6	6'	Helically wound fiberglass whip for best mobile signal. Use with any std. mount or Mark HWM-1.	1 lb.	10.95
92F625	Mark	HW-11-4	4'	Helically wound fiberglass whip equals performance of full ¼ wave whip. Same mount as HW-11-6.	1 lb.	9.95
92F626	Mark	HW-11-518	18"	Light duty heliwhip for roof top or similar mtg. Used with HWM-3 or std. mount.	1 lb.	7.20
92F627	Mark	HWM-3	....	Mount for HW-11-518 only.	1 lb.	4.25
92F628	Mark	HWM-1	....	Mount for HW-11 series or any other whip. Molded fiberglass, one hole mounting, with coax conn. Requires ⅝" hole.	1 lb.	7.50
92F629	A/S	M-1D	102"	Complete body mtg. antenna assembly includes chromed swivel base, spring and whip.	5 lbs.	11.97
92F680	A/S	MB-24	102"	Complete bumper mtg. antenna assembly. No holes to drill. Includes double chain bumper mount, cad. plated spring, stainless steel whip, 20' RG58/U cable with PL-259 conn. and whip hold down clip.	5 lbs.	16.20
92F631	A/S	ASP-185	40"	Gutter clamp antenna snaps on rain gutter of automobile. Can't shake off. Includes 12' RG58U cable and PL-259.	2 lbs.	12.48
92F632	A/S	MR-52	48"	Cowl mtg. fiberglass whip with black plastic covering. Similar in appearance to ordinary auto. ant. Mounts at up to 35° angle on fender, cowl or rear deck. Fits 1⁵⁄₁₆"-1¼" hole. Includes 5' RG-58/U cable and PL-259.	2 lbs.	8.14
92F635	Hy-Gain	TLWT-M	50"	Stainless steel, flexible whip less than half std. ¼ wave whip size. Polyethylene coated, top loaded coil capsule is approx. the same dia. and fused to steel section. Complete with chrome plated, single hole body mount and coax receptacle. Telescopes from 50" to 28".	1 lb.	8.95
92F445	Hy-Gain	CM	23-78"	Stainless steel telescoping whip extends from 23" to 73". Weatherproof, polyethylene enclosed high efficiency base loading coil, 50 ohm match. Complete with universal swivel body mount which requires only one hole to mount.	1½ lbs.	8.97
92F523	A/S	M-67	39"	Roof top auto application. 12' RG-58 U cable with PL-259 connector at set end.	1½ lbs.	15.68
92F525	A/S	M-74	39"	Auto cowl fender or deck mounting. 12' RG-58/U cable with PL-259's both ends. ¾" hole.	1½ lbs.	19.32
92F524	A/S	M-73	39"	Trunk groove mount 12' RG-58/U cable with PL-259 included. ⁷⁄₃₂" holes.	1½ lbs.	17.06

MARINE CITIZENS BAND ANTENNAS

For use on any size boats. Requires no ground systems or any other accessories.

Stock No.	Mfgr.	Type	Ht.	Description	Shpg. Wt.	NET
92F637	A/S	M-71	107"	Mounts on any surface, horizontal, vertical or sloping. Includes mount and coax w/cnctr. Can be shortened. Will lay down in one direction. Beautiful, chrome appearance.	5 lbs.	34.05
92F638	Mark	HW-11-6M	6'	Mounts on any horizontal surface. Includes mount and impedance matching coax w/cnctr. Short whip is flexible fiberglass and can be quickly removed to clear bridges.	2 lbs.	22.95

FIXED STATION VERTICALS — FOR EQUALLY GOOD COVERAGE IN ALL DIRECTIONS

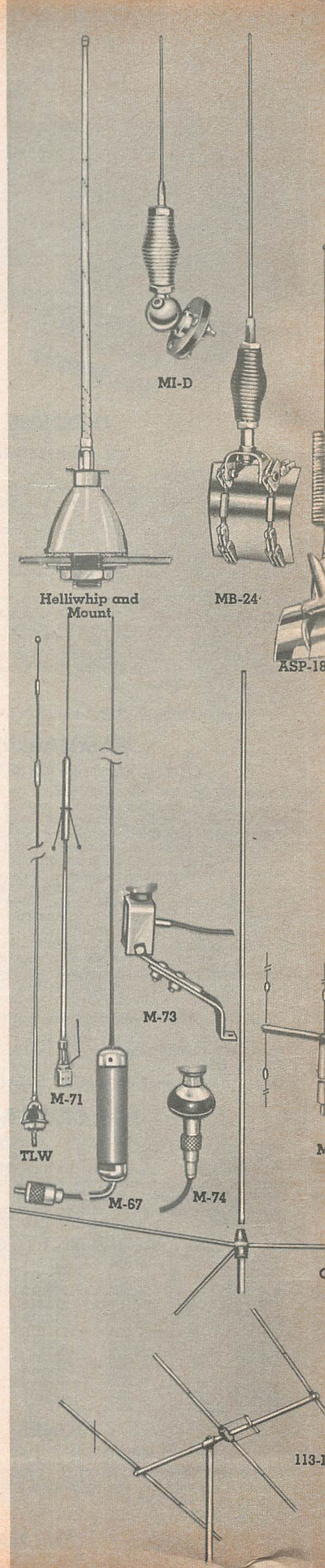
Stk. No.	Mfgr.	Type	Style	Gain Over Gd. Plane	Mounts on	Ant. Ht.	Shpg. Wt.	NET
92F639	A/S	MA-36	Coax. vertical	No	Pipe	16½'	7 lbs.	21.00
92F449	Hy-Gain	GP-1	Grnd. plane	No	1⅝" O.D. pipe	8'	10 lbs.	26.25
92F640	A/S	M-81	Magnum 27	Yes	Pipe mast	17'3"	9 lbs.	28.43
92F641	Hy-Gain	CLR	Colinear	Yes	Up to 1⅝" mast	20'	10 lbs.	29.97
92F642	Mark	MKII	Super Beacon	Yes	Pipe mast	19'	12 lbs.	34.95

BEAMS — FOR MAXIMUM SIGNAL STRENGTH IN ONE DIRECTION

Stk. No.	Mfgr.	Type	Style	No. Ele.	Ele. Lgth.	Boom Size	Fwd. Gain	F/B Ratio	Shpg. Wt.	NET
92F448	Hy-Gain	113-B	Horizontal Beam	3	16½'	8'	9db	25db	15 lbs.	31.50
92F643	A/S	M-37	Vertical Beam	3	18'	11'	7db	13db	15 lbs.	45.00

ANTENNA ACCESSORIES

Stk. No.	Mfgr.	Type	Description	Shpg. Wt.	NET
92F433	Hy-Gain	CC-12PL	12' Coax cable (type RG-58/U with PL-259 coax. connecters at both ends.	1 lb.	4.17
92F447	Hy-Gain	CC-25	Similar to above except 25' of cable.	1½ lbs.	5.97
92F644	Hy-Gain	CPR	Coupler to use any CB antenna for AM broadcast radio as well as CB radio without switching.	¼ lb.	8.97



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- ✓ Newark has the items listed in this catalog—in stock. Whether you need a tube or the most advanced piece of communications equipment, you can order from Newark and be assured of prompt delivery.
- ✓ Satisfaction Guaranteed. If any item you order is defective, we will make a prompt adjustment. This is Newark's guarantee, in addition to the standard EIA warranty.

NEWARK'S EASY TIME PAYMENT PLAN

UNPAID BALANCE	REGULAR PAYMENT PERIOD		EXTENDED PAYMENT PERIOD	
	HANDLING CHARGE	MONTHLY PAYMENT	HANDLING CHARGE	MONTHLY PAYMENT
50.01 to 60.00	6.00	6.00		
60.01 to 70.00	7.00	7.00		
70.01 to 80.00	8.00	7.00		
80.01 to 90.00	9.00	8.00		
90.01 to 100.00	10.00	9.00		
100.01 to 110.00	11.00	10.00	15.00	6.00
110.01 to 120.00	12.00	10.00	17.00	6.00
120.01 to 130.00	13.00	10.00	19.00	7.00
130.01 to 140.00	14.00	11.00	21.00	7.00
140.01 to 160.00	16.00	12.00	24.00	8.00
160.01 to 180.00	18.00	13.00	27.00	9.00
180.01 to 200.00	20.00	14.00	30.00	10.00
200.01 to 225.00	22.50	15.00	34.00	11.00
225.01 to 250.00	25.00	16.00	38.00	12.00
250.01 to 275.00	27.50	17.00	42.00	14.00
275.01 to 300.00	30.00	19.00	45.00	15.00
300.01 to 350.00	35.00	21.00	51.00	17.00
350.01 to 400.00	40.00	24.00	58.00	19.00
400.01 to 450.00	45.00	27.00	66.00	22.00
450.01 to 500.00	50.00	30.00	73.00	24.00

Lets you have your equipment now, while you budget your payments.

Down Payments—$5 on purchases from $50 to $100. 10% on purchases of over $100.

You pay the balance in easy monthly payments. See chart at left. Minimum payment is $6 per month. No carrying charge is made if goods are paid for within 60 days.

MERCHANDISE PURCHASES FOR RESALE CANNOT BE PURCHASED ON TIME PAYMENT PLAN

Write for the Time Payment Forms.

A Money Saving Hint:

A larger down payment reduces carrying charges and monthly payments.

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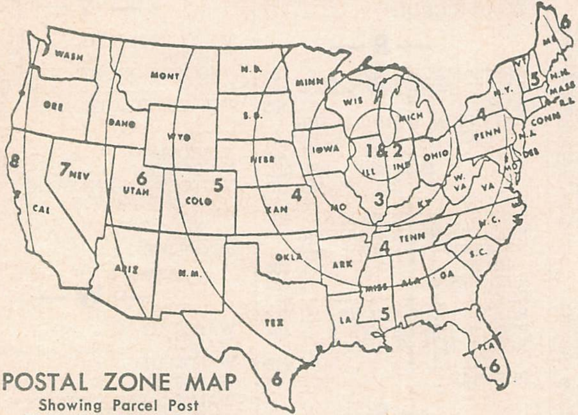
HOW TO ORDER FROM NEWARK

PARCEL POST RATES

See the table and zone map below for parcel post rates. Save C.O.D. charges by sending enough money to cover postage. On parcels under 8 ounces, allow 3c for first 2 ounces or fraction, and 1c for each additional ounce.

Weight in Pounds	ZONES Local	1-2 Up to 150 Miles	3 150 to 300 Miles	4 300 to 600 Miles	5 600 to 1000 Miles	6 1000 to 1400 Miles	7 1400 to 1800 Miles	8 Over 1800 Miles
1								
2	$0.24	$0.33	$0.35	$0.39	$0.45	$0.51	$0.58	$0.64
3	.26	.38	.41	.47	.55	.64	.74	.83
4	.28	.43	.47	.55	.65	.77	.90	1.02
5	.30	.48	.53	.63	.75	.90	1.06	1.21
6	.32	.53	.59	.70	.85	1.03	1.22	1.40
7	.34	.58	.65	.77	.95	1.16	1.38	1.59
8	.36	.63	.71	.84	1.05	1.29	1.54	1.73
9	.38	.68	.77	.91	1.15	1.42	1.70	1.97
10	.40	.73	.83	.98	1.25	1.55	1.86	2.16
11	.42	.77	.89	1.05	1.35	1.67	2.02	2.34
12	.44	.81	.95	1.12	1.45	1.79	2.18	2.52
13	.46	.85	1.01	1.19	1.55	1.91	2.34	2.70
14	.48	.89	1.07	1.26	1.65	2.03	2.50	2.88
15	.50	.93	1.13	1.33	1.75	2.15	2.66	3.06
16	.52	.97	1.18	1.40	1.85	2.27	2.81	3.24
17	.54	1.01	1.23	1.47	1.95	2.39	2.96	3.42
18	.56	1.05	1.28	1.54	2.05	2.51	3.11	3.60
19	.58	1.09	1.33	1.61	2.15	2.63	3.26	3.78
20	.60	1.13	1.38	1.68	2.25	2.75	3.41	3.96
For Each Extra Lb.	Add 2c	Add 4c	Add 5c	Add 7c	Add 9c	Add 12c	Add 15c	Add 18c



POSTAL ZONE MAP

Showing Parcel Post
Zones from Chicago, Ill.

AIR PARCEL POST RATES

ZONES	1 & 2	3	4	5	6	7	8	
1 Lb.	$0.60	$0.60	$0.65	$0.70	$0.75	$0.75	$0.80	U. S. Territories & Possessions 80c Per Lb.
For Each Extra Lb.	Add 48c	Add 48c	Add 50c	Add 56c	Add 64c	Add 72c	Add 80c	

EXPRESS CHARGES

Do not remit for express charges unless there is no express agent at your location. Add 3% to amounts shown below to cover Federal Tax.

Weight Pounds	MAXIMUM DISTANCE IN MILES Local	150 Mi.	300 Mi.	500 Mi.	750 Mi.	1000 Mi.	1500 Mi.	2000 Mi.
5	$2.87	$2.88	$2.99	$3.10	$3.19	$3.26	$3.20	$3.31
10	2.95	3.02	3.24	3.46	3.63	3.76	3.74	4.17
15	3.05	3.16	3.48	3.81	4.07	4.27	4.38	5.04
20	3.15	3.30	3.72	4.16	4.50	4.78	5.04	5.90
25	3.26	3.43	3.96	4.51	4.94	5.30	5.67	6.76
35	3.46	3.71	4.46	5.23	5.84	6.30	6.96	8.49
45	3.65	3.97	4.95	5.93	6.71	7.32	8.26	10.20
55	3.85	4.25	5.43	6.34	7.58	8.33	9.54	11.92
70	4.15	4.65	6.17	7.70	8.91	9.87	11.49	14.51
85	4.46	4.92	6.91	8.76	9.21	11.38	13.41	17.10
	AT 100 lbs. AND UP ADD 30c PER SHIPMENT							
	4.46	5.18	7.33	9.52	11.23	12.61	15.04	19.39

PARCEL POST INSURANCE

For your protection, all parcel post shipments are insured by the Hartford Insurance Company against loss or damage. Allow for insurance at the following rates:

Amt. Insurance	Ins. Fee
$ 0.01 to $ 10.00	10 Cents
10.01 to 50.00	20 Cents
50.01 to 100.00	30 Cents
100.01 to 200.00	40 Cents

EXPRESS INSURANCE RATES

Amt. Insurance	Ins. Fee
$0.01 to $50.00	No Fee
$50.01 to $150.00	25c

Each additional $100.00 of value or fraction 25c.

Main Office and Warehouse
223 West Madison Street
Chicago, Illinois
State 2-2944

HOW TO ORDER

You may use either your own Purchase Order Forms, or the Order Form on this envelope. Additional Order Blanks will be sent to you upon request. Type or print your name and address. Write legibly, giving correct stock number, quantity desired, description of item, and price. Please do not list more than one item to a line. When you have listed all the items you require, total your order and enclose sufficient funds to cover merchandise, postage and insurance. Be sure to include sufficient postage. Check the preferred square to indicate how shipment should be made. For shipping charges on express and freight shipments see explanation below. Remarks and correspondence relating to your order should be on a separate sheet of paper.

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Catalog prices are net, f.o.b. Chicago. All applicable discounts have been deducted. Prices replace those in all previous catalogs and are subject to change without notice. Orders are filled at prices in effect at time of shipment. If prices are reduced, we give you the advantage of the lower prices. We reserve the right to add any Federal, State or Local taxes. List Prices. Any list prices shown in this catalog are those suggested by our suppliers and are not our list prices, nor our selling prices. Our NET catalog prices are the prices you pay.

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Avoid sending coins or currency if you possibly can. Please do not send stamps. If you must remit cash, send it by Registered Mail only. The best ways to send money are by U.S. Postal Notes, American Express, Post Office or Telegraph Money Orders, Bank Drafts, or Checks. Be sure to include sufficient postage for shipment of your order.

EXPRESS OR FREIGHT SHIPMENTS

Do not send money for Freight or Express Charges if your station has an agent. These charges are collected upon delivery by the Freight or Express agent in your locality, and they are the same amount whether the shipment is prepaid or collect. If there is no agent in your locality, remit sufficient funds to cover shipping charges. Bulky merchandise, and precision equipment such as radio and television sets, sound systems, test instruments, TV tubes, etc., should be shipped by Express. Freight is recommended where speed is not essential and the merchandise weighs over 100 pounds. All Express shipments valued at under $50.00 are automatically insured. On shipments valued at $50.01 to $150.00 there is a charge of 15 cents. For each additional $100.00 of value, or fraction thereof, there is a charge of 15 cents.

AIR SHIPMENTS

For fast delivery, air shipments are recommended. Orders can be shipped by Air Parcel Post, Air Express, or Air Freight to any destination. Your order can be sent by air even if you are not near the airport office. Shipment is made by air to the nearest airport office and then by regular Express or Parcel Post to you. Use Air Freight for extra-heavy shipments only. See table at right for Air Parcel Post Rates. Consult your local Express agent for Air Express rates and your local airport for Air Freight rates.

RETURNING MERCHANDISE

If for any reason it is necessary to return merchandise for adjustment, write us in advance, sending all papers relating to the order. Be sure to enclose a full explanation of why you wish to return the merchandise. In case of receipt of damaged shipment obtain a report from the postmaster or express agent, and mail it to us.

C.O.D. SHIPMENTS

On parcel post C.O.D. shipments, the Post office charges an additional collection fee and a money order fee for forwarding the amount collected to us. You can save money by sending full remittance with order. The following are the charges on C.O.D. orders.

Amt. C.O.D.	C.O.D. Fee
$ 0.01 to $ 5.00	40 Cents
5.01 to 10.00	50 Cents
10.01 to 25.00	70 Cents
25.01 to 50.00	80 Cents
50.01 to 100.00	90 Cents
100.01 to 200.00	$ 1.00

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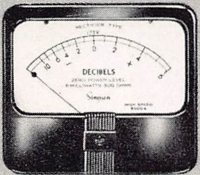
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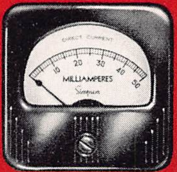
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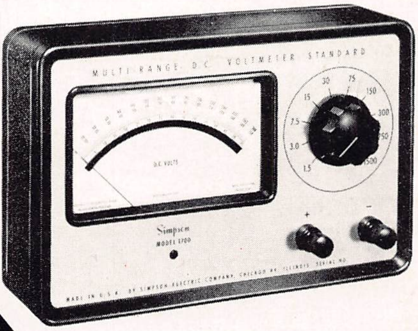
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